



Manual of National Standards for Family Planning Services

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ABBREVIATIONS AND ACRONYMS

ART	Antiretroviral therapy
ARV	Antiretroviral
BBT	Basal body temperature
BHU	Basic Health Unit
BTL	Bilateral tubal ligation
CBO	Community-based organization
CCSSC	Cabinet Committee for Social Sector Coordination
CIC	Combined injectable contraceptive
COC	Combined oral contraceptive
COPE	Client-Oriented Performance Evaluation
CPD	Continued professional development
CPR	Contraceptive prevalence rate
CRC	Client clinical record card
CS	Contraceptive surgery
DTC	District Technical Committee
DVT	Deep venous thrombosis
EC	Emergency contraception
ECP	Emergency contraceptive pill
ENG	Etonorgestrel
EPI	Expanded Programme on Immunization
FP	Family planning
FPAP	Family Planning Association of Pakistan
FTO	Field Technical Officer
FWA	Family Welfare Assistant
FWC	Family Welfare Centre
FWW	Family Welfare Worker
HBV	Hepatitis B virus
HCV	Hepatitis C virus
HLD	High-level disinfection
HRD	Human resource development
HTSP	Healthy Timing and Spacing of Pregnancy
ICPD	International Conference on Population and Development
IEC	Information, education and communication
IPC	Interpersonal communication
IRC	Institutional Reimbursement Cost
ISO	International Standards Organization
IUCD	Intrauterine contraceptive device
LAM	Lactational amenorrhoea method
LHW	Lady Health Worker
LMP	Last menstrual period
MCH	Maternal and child health

MDG	Millennium Development Goal
M&E	Monitoring and Evaluation
MEC	Medical Eligibility Criteria
MIS	Management information system
MO	Medical Officer
MoH	Ministry of Health
MoPW	Ministry of Population Welfare
MSU	Mobile Service Unit
MSV	Medical site visit
NATPOW	National Trust for Population Welfare
NFP	Natural family planning
NGO	Nongovernmental organization
NGO CC	Nongovernmental Organization Coordinating Council
NIPS	National Institute of Population Studies
NSAID	Nonsteroidal anti-inflammatory drug
NSV	No-scalpel vasectomy
OCP	Oral contraceptive pill
OPD	Outpatient department
PCOS	Polycystic ovarian syndrome
PE	Pulmonary embolism
PET	polyethylene
PID	Pelvic inflammatory disease
PLD	Provincial Line Department
PMTCT	Prevention of mother-to-child transmission (of HIV)
PoA	Plan of Action
POP	Progestin-only pill
PGR	Population growth rate
PPE	Personal protective equipment
PPFP	Postpartum family planning
PWD	Population Welfare Department
PWP	Population Welfare Programme
PWTI	Population Welfare Training Institute
QoC	Quality of care
RH	Reproductive health
RHS	Reproductive Health Services
RHSC	Reproductive Health Services Centre
RMP	Registered medical practitioner
RTI	Reproductive tract infection
SDM	Standard Days Method®
SIGN	Safe Injection Global Network (WHO)
SMC	Social marketing of contraceptives
SSRI	Selective serotonin reuptake inhibitor
STI	Sexually transmitted infection
TL	Tubal ligation
TOT	Training of trainers
VSC	Voluntary surgical contraception
WHO	World Health Organization

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PREFACE

It is a matter of deep satisfaction for me to endorse the fourth edition of the *Manual of National Standards for Family Planning Services*, which has been developed with the support of the FALAH project.

FALAH (Family Advancement for Life and Health) is a family planning project supported by the United States Agency for International Development (USAID). The project is being implemented by the consortium led by the Population Council (PC). The other partners are Greenstar Social Marketing, Jhpiego, Save the Children USA, Mercy Corps, Rural Support Programmes Network (RSPN), and Health and Nutrition Development Society (HANDS).

The Ministry of Population Welfare has developed the National Standards, keeping in view the future role and responsibilities of trainers and service providers both in the public and private sectors. It focuses on providing knowledge of the concepts for addressing reproductive health issues in the local socio-cultural context.

After the ICPD*-1994, the scope of family planning was broadened and the right to reproductive health as an entitlement was made an integral component. In common with other signatory countries, in Pakistan several factors, including communal, cultural and religious influences, have an obvious impact on family planning and reproductive health services. The enhanced and comprehensive approach defined under ICPD takes into consideration aspects of both human and reproductive health rights. Therefore, for the successful implementation of the program, family planning practices must be promoted in a holistic manner for the betterment of people, particularly women and children. As per ICPD commitment and the MDGs, the Ministry of Population Welfare is striving towards the goal of providing quality reproductive health, including family planning services.

Through this manual, minimum standards for family planning and reproductive health service provision have been defined. To update the manual and make it in line with the latest developments, two new chapters—“Healthy Timing and Spacing of Pregnancy” and “Postpartum Family Planning”—have been added. I am confident that this manual will prove to be particularly useful for the trainers and service providers working in the public, private, and NGO sectors.

I would like to place on record our gratitude to Jhpiego, an affiliate of Johns Hopkins University, for providing technical support in updating the manual. I would also like to thank the officers of the Technical Wing of the Ministry/Departments of Population Welfare and others for their support and professional contributions. The untiring work and secretariat support provided by the staff are gratefully acknowledged.

*International Conference on Population Development

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FAMILY PLANNING SERVICE DELIVERY IN PAKISTAN

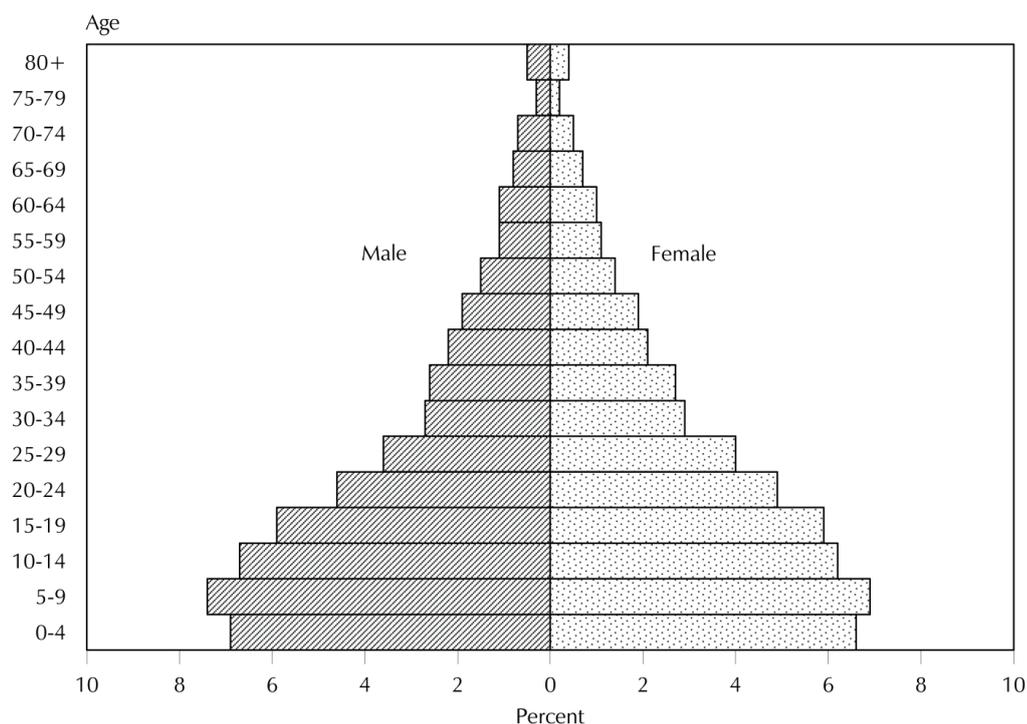
Introduction

Pakistan's National Population Welfare Programme is an ongoing social development endeavour operating within the framework of nationally accepted, broad-based, and strategically focused population and development policies. Its mission is to improve and enrich the quality of life through promotion of small-family norms and voluntary adoption of birth spacing, ultimately leading to the attainment of population stabilization.

Country Profile

Pakistan is the sixth most populous country in the world, with a population of more than 160 million and a growth rate of around 1.73 percent per annum in 2009, representing an annual addition of almost three million people. The country is facing great challenges to attain socio-economic development and break the vicious cycle of poverty. This annual addition to the population, in the context of low socio-economic indicators, not only dilutes the results of development efforts but also creates overwhelming demand on limited resources. It is estimated that at the current growth rate, the population of Pakistan will touch 217 million by 2020. Based on these growth patterns and trends, the economy will be unable to sustain the growing population with hardly any scope for improvement in the quality of life, even under the most favourable circumstances. This situation is, therefore, a matter of deep concern and becomes a central issue in the overall planning perspective as well as the strategy for alleviating poverty in the country.

Figure 1-1. Distribution of Men and Women of Reproductive Age in Pakistan



Source: National Institute of Population Studies (NIPS) [Pakistan] and Macro International Inc. 2008. *Pakistan Demographic and Health Survey 2006-07*. National Institute of Population Studies and Macro International Inc.: Islamabad, Pakistan.

Pakistan's Population Welfare Programme: History

Family planning (FP) activities were introduced in Pakistan's First Five Year Plan (1955–60) through the Family Planning Association of Pakistan (FPAP) and other voluntary organizations. In the second Five Year Plan (1960–65), FP services were extended through the health infrastructure; however, in the third Five Year Plan (1965–70), an independent Family Planning set-up was created, mass-scale information, education, and communication (IEC) activities were launched, and a service delivery network was established. In the next plan (1970–75), the "Continuous Motivation Approach" was introduced by employing male-female teams of workers at the Union Council level. During 1975–80, the programme operated at a low key due to re-organization, political unrest, and suspension of IEC activities.

In 1981, an administrative re-organization was undertaken and a broad-based, multi-sectoral, and multi-dimensional strategy was conceived, developed, and introduced. In the sixth Plan period (1983–88), field activities were provincialized through a 1983 ordinance, the role of nongovernmental organizations (NGOs) was institutionalized through the NGO Coordination Council (NGO CC), social marketing of contraceptives (SMC) was introduced, and the National Institute of Population Studies (NIPS) was established. The strategies of the sixth Plan were pursued in the seventh Five Year Plan (1988–93), with emphasis on lowering the fertility level and a focus on a motivational campaign and widening the range

of contraceptive methods for voluntary choice. Also, a special IEC programme and quality FP service delivery facilities were developed for the country's large cities, with a view to set trends for rural areas. The role of the District Office was expanded, and Divisional and Tehsil tiers were created. In fact, a breakthrough in the programme occurred during the latter part (1990–93) of the seventh Plan.

In the eighth Plan (1993–98), the population programme continued to receive strong political support from the highest levels, but because the Plan was finalized before the International Conference on Population and Development (ICPD) held in 1994, the reproductive health (RH) framework was not fully reflected in it. However, an institutional mechanism to oversee, guide, and strengthen collaborative efforts to advance the FP/RH agenda was established by the creation of a Coordination Committee of Health and Population Welfare. Later, in the ninth Five Year Plan (1998–2003), the programme was realized with a post-ICPD Plan of Action (PoA), while keeping in view the local socio-cultural conditions and priorities.

In March 2000, the Government initiated restructuring and right-sizing of the public sector; an assessment of the Population Welfare Programme was also undertaken, wherein it was noted that the programme was moving in the right direction and the fertility transition had set in and had to be sustained. The process led to formulation of the Population Policy in 2002, setting the long-term vision for the population sector. By end of the ninth Plan and later, the programme has been able to raise the contraceptive prevalence rate (CPR) and reduce the population growth rate (PGR), thereby heading towards achievement of population stabilization.

Population Policy 2002

The Government has formulated the Pakistan Population Policy to address population issues in a holistic manner. The policy was approved by the Cabinet in July 2002, with a vision to achieve population stabilization (replacement level) by 2020 through expeditious completion of a demographic transition that entails decline in both fertility and mortality rates. The policy calls for a sustained political commitment and emphasizes the need for mobilizing broad-based support from all stakeholders in the public and private sectors. The goals, objectives, and strategies of the policy are described below.

Policy Goals

- Attain a balance between resources and population growth within the broad parameters of the ICPD paradigm.
- Address various dimensions of the population issue within national laws and development priorities, while adhering to national, social, and cultural norms.

- Increase awareness of the adverse impact of rapid population growth at the national, provincial, district, and community levels.
- Promote FP as an entitlement, based on voluntary and informed choice.
- Attain a reduction in fertility through improvement in access and quality of RH services.
- Reduce population momentum through delaying the first birth, encouraging change in spacing patterns, and popularizing the small-family concept.

Policy Objectives

- Ensure universal access to safe FP methods by 2010.
- Reduce the population growth rate from 1.9 percent per annum in 2004 to 1.3 percent per annum by 2020.
- Reduce fertility, through enhanced adoption of voluntary contraception, from 4.0 in 2004 to a replacement level of 2.1 births per woman by 2020.

Strategies

- Develop, launch, and sustain advocacy campaigns to address special groups, such as parliamentarians, policymakers, district government, religious leaders, opinion builders, youth, adolescents, etc.
- Increase ownership of population issues by stakeholders and strengthen their participation in processes of programme design and service delivery.
- Reduce unmet need for FP services by addressing social barriers and making available quality FP and RH services.
- Strengthen need-based services.
- Ensure provision of services to the poor, underserved populations in difficult-to-reach and far-flung areas.
- Coordinate and monitor the network of FP and RH services in the country.
- Build strong partnerships with concerned line ministries and provincial line departments, particularly in the health sector.
- Strengthen the contribution to population activities through civil society players, particularly NGOs, and involvement of the media community.
- Expand the role of the private sector by making contraceptives available, accessible, and affordable at marketplaces.
- Harness support, cooperation, and involvement of men in strengthening the family as a basic unit of society and in family decision-making.

To attain the above goals and objectives, the Ministry of Population Welfare (MoPW), along with provinces and other stakeholders, has introduced and

strengthened the following programmatic interventions in line with the stated strategies:

- Launch a well-conceived IEC campaign to address macro-population issues and socio-cultural constraints.
- Introduce a cadre of Male Mobilizers at Union Council level for enhancing male involvement in FP/RH.
- Conduct human resource development (HRD) activities for programme managers to promote result-oriented management through the Management Information System (MIS).
- Facilitate and oversee FP service delivery in health outlets and Provincial Line Departments and compare against agreed-upon performance indicators.
- Increase the existing level of SMC and engage private sector industrial organizations to undertake FP, advocacy, and service delivery programmes.
- Involve NGOs/civil society organizations through the National Trust for Population Welfare (NATPOW) and strengthen public-private partnership.
- Decentralize operational activities at district level and below for efficiency of fiscal, administrative, and programme transfers.
- Enhance involvement of trained private sector service providers in rural and slum areas.

The programme implementation at the national level is the responsibility of the MoPW, and operational activities of the programme are executed by Provincial Population Welfare Departments (PWDs).

The Millennium Development Goals

There are eight goals that 192 United Nations member states have agreed to achieve by the year 2015. The eight Millennium Development Goals (MDGs)—which range from halving extreme poverty, to putting a halt to the spread of HIV/AIDS, and providing universal primary education, all by the target date of 2015—form a blueprint agreed to by all of the countries and the entire world's leading development institutions. They have galvanized unprecedented efforts to meet the needs of the world's poorest.

The United Nations Millennium Declaration, signed in September 2000, commits the states to:

1. Eradicate extreme poverty and hunger:
 - Reduce by half the proportion of people living on less than one U.S. dollar a day.
 - Reduce by half the proportion of people who suffer from hunger.
 - Increase the amount of food for those who suffer from hunger.

2. Achieve universal primary education:
 - Ensure that all boys and girls complete a full course of primary schooling.
 - Accompany increased enrolment with efforts to ensure that all children remain in school and receive a high-quality education.
3. Promote gender equality and empower women:
 - Eliminate gender disparity in primary and secondary education, preferably by 2005, and at all levels by 2015.
4. Reduce child mortality:
 - Reduce the mortality rate among children under five by two-thirds.
5. Improve maternal health:
 - Reduce by three-quarters the maternal mortality ratio.
6. Combat HIV/AIDS, malaria, and other diseases:
 - Halt and begin to reverse the spread of HIV and AIDS.
 - Halt and begin to reverse the incidence of malaria and other major diseases.
7. Ensure environmental sustainability:
 - Integrate the principles of sustainable development into country policies and programmes; reverse loss of environmental resources.
 - Reduce by half the proportion of people without sustainable access to safe drinking water.
 - Achieve significant improvement in the lives of at least 100 million slum dwellers by 2020.
8. Develop a global partnership for development:
 - Develop further an open trading and financial system that is rule-based, predictable, and non-discriminatory. This includes a commitment to good governance, development, and poverty reduction, nationally and internationally.
 - Address special needs of the least developed countries. This includes tariff- and quota-free access for their exports; enhanced debt relief for heavily indebted poor countries; cancellation of official bilateral debt; and more generous official development assistance for countries committed to poverty reduction.
 - Address the special needs of landlocked and small island developing states.
 - Deal comprehensively with developing countries' debt problems through national and international measures to make debt sustainable in the long term.

- In cooperation with the developing countries, develop decent and productive work for youth.
- In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries.
- In cooperation with the private sector, make available the benefits of new technologies, especially information and communication technologies.

Pakistan Population Sector Initiatives

- National Population Commission, 2006
- Provincial Population Councils, 2006
- Joint Steering Committee of Health and Population, 2005
- Cabinet Committee for Social Sector Coordination (CCSSC)
- Focal points in all relevant Ministries/Divisions
- Revitalization of District Technical Committees
- Expansion of service delivery outlets
- Capacity building of training and research institutes
- Partnership with private and corporate sector organizations
- International Standards Organization (ISO) certification of service delivery outlets
- International Ulema Conference, 2005
- Follow-up of IDPD, 2006
- International Population Summit, 2005
- Follow-up of Population Summit, 2006
- Advocacy seminar for parliamentarians, 2005, and step-down activities to bring advocacy to lower levels of government
- International best practices for scaling up FP/RH
- Donor collaboration
- Friends of Family Welfare Centres:
 - National Commission for Human Development
 - National Voluntary Movement
 - Pakistan Postal Services
- Mass-media campaign for advocacy and behaviour change communication
- Youth/male involvement through interpersonal communication
- Adolescent and men's advisory centres established
- Population issues included in curricula of 9th to 12th classes

- Master's degree programme on population sciences
- Youth forum on population and development
- Research on latest/new contraceptives
- Population study circle

Population Welfare Programme—Service Delivery Infrastructure

Family Welfare Centres

The Family Welfare Centre (FWC) is the cornerstone of Pakistan's Population Welfare Programme; FWCs constitute the most extensive institutional network in the country to promote and deliver FP services in the urban and rural areas. The FWC operates in a rented building and serves as a static facility for about 7,000 people; furthermore, through its satellite clinics and outreach facilities, it covers an additional population of around 20,000–25,000. The FWC's scope of work includes provision of FP, maternal and child health (MCH) services, and treatment of minor ailments. Post-ICPD, the scope of the FWC was expanded to include RH components like safe motherhood, infant health care, management of reproductive tract infections/sexually transmitted infections (RTIs/STIs), HIV/AIDS, and hepatitis.

Mobile Service Units

Mobile Service Units (MSUs) were conceived as an innovative activity during the seventh Five Year Plan period (1988–93) to provide FP services to far-flung, underserved rural populations. MSUs are located at the Tehsil level and provide services to a population of 30,000 people or 5,000 couples scattered in 15–20 villages by holding 10–12 camps regularly each month.

Reproductive Health Services Centres

Reproductive Health Services (RHS) Centres are one of the major clinical components of the Population Welfare Programme with its hospital-based service outlets (RHS-A Centres) in teaching hospitals, major hospitals in big cities, all District Health Office (DHO) hospitals, and selected Tehsil Health Office (THO) hospitals. Facilities for contraceptive surgery, along with a full range of contraceptives, including IUCDs, injectables, condoms, oral pills, and subdermal implants, are available to FP clients.

There are two categories of RHS Centres, RHS-A Centres and RHS-B Centres, as discussed below:

- **RHS-A Centres:** These are hospital-based service delivery units established by the Ministry/Departments of Population Welfare. The Centres provide a full range of services identified in the National RH Services Package (see Annex I), comprising comprehensive FP services, including facilities for contraceptive

surgery for females and males as an outdoor procedure with safe and effective backup medical support and long-term client follow-up; MCH care, prevention, and management of RTIs/STIs and HIV/AIDS; counselling and referral for adolescent youth; management of RH problems of elderly women; referral for men's problems; client education for early screening/detection of cancer of breast and uterus; couple counselling; and referral for treatment of infertility. These centres play a vital role in raising awareness of public health issues, personal hygiene, nutrition and breastfeeding during reproductive age, and preventive gynaecology/obstetric facilities. These services contribute to reductions in infant and maternal morbidity/mortality, leading to improvement in general health and reduction in fertility. Further, the RHS-A Centres provide treatment for minor/general ailments, especially to women and children.

All RHS-A Centres undertake extension camps for provision of services nearest to the client's doorstep. Camps are arranged at THQ Hospitals/Rural Health Centres with operating theatre facilities for provision of contraceptive services, including voluntary surgical contraception.

To enhance men's participation by creating awareness of FP/RH issues and motivation, with a special focus on provision of vasectomy services, preferably no-scalpel vasectomy (NSV), training of male doctors from the MoPW, Ministry of Health (MoH), and NGOs is conducted. Efforts are being made to provide vasectomy services at most of the RHS-A Centres.

- **RHS-A Training Centres:** Of all the existing RHS-A Centres, 18 Centres (Punjab–10, Sindh–7, NWFP–1), located in the teaching hospitals with highest contraceptive surgery performance, have been upgraded to RHS Training Centres, including three RHS Master Training Centres for ensuring availability of trained medical/paramedical staff to manage/provide quality FP/RH services in the Programme. To achieve these objectives, the Master Training/ Training Centres are provided with additional staff and logistics.
- **RHS-B Centres:** Hospitals of Provincial Line Departments, including health, NGOs, and private sector, with operating theatre facilities and trained staff committed to performing contraceptive surgery along with a complete range of FP methods, are registered as RHS-B Centres. These Centres are also provided facilities in contraceptive surgery for the doctors and paramedics at the RHS Training Centres, a regular supply of contraceptives, IEC materials, and institutional reimbursement cost (IRC) for contraceptive surgery.

Male Mobilizers

Male Mobilizers are the focal point for the grassroots programme, responsible for interaction with local community leaders, male teachers, shopkeepers, religious leaders (Imam Masjid), and community-based organizations (CBOs) to advocate for and promote the objectives and purposes of the Programme.

Service Delivery Network—2007

Family Welfare Centres	2,853
Mobile Service Units	292
RHS A-Centres	152
RHS B-Centres	135
Male Mobilizers	4,195
Registered Medical Practitioners	26,080
Hakeems and Homeopaths	26,550
Department of Health (DoH)/MoH	7,012
Lady Health Workers (LHWs)	96,000 +
Public-Private Sector Organizations	98
Nongovernmental Organizations	600
Social Marketing of Contraceptives	1

Quality of Care

Quality of Care (QoC) is a client-centred approach to providing high-quality health care as a basic human right; it is considered a critical element of FP/RH services. It has been promoted by all stakeholders in the public and private sectors as well as by NGOs, as affirmed at international conferences. High-quality services ensure that clients receive the care that they deserve. Furthermore, providing better services at reasonable prices attracts more clients, increases the use of FP methods, and reduces the number of unintended pregnancies.

Improving QoC for clients means understanding their cultural values, previous experiences, and perceptions of the role of the health system, and then bringing RH service providers and the community together to map out a shared vision of quality. Similarly, enhancing the QoC given by health care providers requires identifying their motivations, addressing their needs (including general administrative and logistical support), and helping them to better understand and address clients' concepts of quality (Annex II). Creating a shared vision for improved QoC requires that programme managers, service providers, researchers, and consumers advocate the idea that quality matters. Given time and effort, the ongoing attempt to improve the QoC will translate into services that meet minimum quality standards and satisfy the needs of clients and providers to bridge the gap of unmet need.

Elements of Quality

Choice of FP method refers both to the number of methods offered on a reliable basis and to their intrinsic variability. The methods offered serve significant subgroups as defined by age, sex, contraceptive intention, lactation status, and health profile.

Information given to client refers to the information imparted during service contact that enables clients to freely choose and use contraception with satisfaction.

Technical competence involves factors such as the skill of the health care provider, observance of protocols, and meticulous asepsis required for dispensation of clinical methods.

Inter-personal relations are the personal dimensions of service provision.

Mechanisms to encourage continuity indicate a programme's interest and ability to promote continuity of contraceptive usage.

An appropriate constellation of services refers to the location of FP service delivery points at a given locality and their referral linkages.

ISO Certification

During 2004, the Standing Committee of the National Assembly desired that service delivery points of the Population Welfare Programme have ISO Certification so that their QoC would be recognized at par with the international standards and protocols. The programme's countrywide network of outlets is mandated to deliver FP services, keeping special focus on QoC. Quality assurance is regularly monitored at district, provincial, and federal levels.

The MoPW is the first ever public sector organization to have (ISO) 9001:2000 certification for its service delivery outlets, through the United Registrars of Systems (URS), UK. This certification had been completed for selected RHS-A Centres, MSUs, and FWCs at Islamabad, Chakwal, and Jhelum by March 2005/July 2006, with financial assistance from UNFPA. Internal Functional Audits are conducted biannually to review this process and an External Functional Surveillance Audit for Certificate Renewal is conducted annually for ISO 9001:2000 certification. The overall objective of having international accreditation is to promote quality services through a system in place for QoC, ongoing training, and periodic evaluations.

Based on the above experience, the MoPW through the Federal Technical Committee, duly represented by Population Welfare Departments, developed checklists (Annex III) for QoC and standardization of services throughout the Population Welfare Programme. Through these checklists, client-oriented services, feedback, ongoing training, and maintenance of housekeeping and minimum stock levels according to standards could be ensured. Periodic quality objectives are a mandatory requirement to be established by all service delivery outlets. Continued QoC and improvement in services is ensured through timely achievement of these objectives, monitoring, and periodic reviews.

Components of National RHS Package of Pakistan

1. Comprehensive FP services for females and males
2. Maternal health care, including safe motherhood and pre- and postabortion care to avoid complications
3. Infant health care (newborn to children up to 1 year old)
4. Prevention and management of RTIs/STIs and HIV/AIDS
5. Management of RH-related issues of adolescents
6. Management of other RH-related issues of elderly women
7. Management of RH-related issues of men, including male involvement and prostate cancer
8. Management of infertility
9. Screening/early detection of breast and cervical cancers

List of Quality of Care Indicators

Provider

- Demonstrates good counselling skills.
- Treats client with respect/courtesy.
- Assures confidentiality.
- Asks client about reproductive choice.
- Discusses client's preference among contraceptive mix.
- Discusses methods for preventing pregnancy and STIs/RTIs, HIV/AIDS, and hepatitis through proper use of barrier methods.
- Tailors key information on the accepted method, explaining its use, side effects, and possible complications.
- Gives instructions on when to return for follow-up.
- Follows infection prevention and control procedures according to guidelines.
- Recognizes/identifies contraindications, consistent with guidelines.
- Performs clinical procedures according to guidelines.

Staff (other than provider)

- Treats clients with respect.
- Provides relevant information to assist clients in using the facility.

Client

- Participates actively in discussion and selection of method.
- Receives his or her method of choice.
- Believes the provider will keep his or her information confidential.

Facility

- Has all (approved) contraceptive methods available, with minimum stock for 3 months.
- Has basic equipment/items needed for delivery of methods offered by the facility (including sterilizing equipment, gloves, blood pressure apparatus, specula, adequate light source, adequate water supply, and sewerage).
- Ensures privacy for pelvic examination/IUCD insertion.

- Has sufficient flexibility to make local-level changes based on client feedback.
- Should undergo periodic supervisory visits within a certain pre-determined period.
- Has adequate storage of contraceptives and medicines (away from moisture, heat, direct sunlight) on premises.
- Follows standard clinical guidelines.
- Has comfortable waiting area and ensures minimum waiting time.

Checklists on QoC for Service Delivery Points

Checklist on Readiness for Handling Emergency Situation

A. Equipment

Sr. No.	Equipment	Availability		Functional	
		Yes	No	Yes	No
1.	Airway				
2.	Ambu bag/resuscitator				
3.	Laryngoscope				
4.	Endotracheal tube				
5.	Oxygen cylinder, regulator, and tubing				

B. Emergency Medicines List as per National Standards

Sr. No.	List Displayed	Yes	No
1.	Medicines being checked weekly with reference to:		
	• Availability		
	• Expiry		

List of Emergency Medicines attached at Annex IV.

Checklist on Segregation/Disposal of Infectious Waste (In Coloured Bags) and Non-Infectious Waste (In White Bags)

Sr. No.	Waste Disposal	Yes	No
1.	Segregation of infectious and non-infectious waste		
2.	Infectious waste disposed of in black bags to incinerator		
3.	Non-infectious waste disposed of in white bags to the general waste		

Checklist on Infection Prevention Protocols Observed as per National Standards

Sr. No.	Method	Knowledge		In Practice	
		Yes	No	Yes	No
1.	Decontamination with 0.5% chlorine solution				
2.	Cleaning				
3.	High-level disinfection through boiling				
4.	Sterilization:				
	• Autoclave				
	• Manual pressure cooker				
	• Chemical sterilization				

Checklist on Client-Oriented Services

Sr. No.	Counselling	Knowledge		In Practice	
		Yes	No	Yes	No
1.	Greet				
2.	Ask/Assess				
3.	Tell				
4.	Help				
5.	Explain				
6.	Return/follow-up visit				

Insertion Room Checklist

Sr. No.	Insertion Room	Yes	No
1.	Housekeeping:		
	• Dusting		
	• Cleaning		
	• Things in order		
2.	Steps of infection prevention observed:		
	• Handwashing		
	• Handscrubbing		
	• Gloving		
	• Decontaminating:		
	– Insertion room table		
	– Couch		
	– Buckets		
	– Floor		
3.	Equipment:		
	• Boiler (“sterilizer”)		
	• Autoclave		
4.	Separately packed sterilized or HLD IUCD kits for individual clients:		
	• Insertion kits		
	• Removal kits		

Operating Theatre Checklist

Sr. No.	Operating Theatre	Observed		Frequency	
		Yes	No	Proposed	Practiced
1.	Housekeeping			Twice daily	
2.	Decontamination with 0.5% chlorine solution			Twice daily	
3.	Cleaning			Twice daily	
4.	Carbolization			Quarterly	
5.	Ultraviolet light			Once daily	
6.	Sterilized or HLD functional Instrument availability			Not applicable	Not applicable
7.	Instruments in functioning order			Not applicable	Not applicable
8.	Soiled linen placed in a defined storage area (hampers)			Not applicable	Not applicable

Checklist on Calibration of Following Essential Equipment Used in RHS-A Centre

Sr. No.	Equipment	Calibration		Date of Calibration	Expiry Date
		Yes	No		
1.	Thermometer				
2.	Blood pressure apparatus				
3.	Weighing scale				
4.	Oxygen cylinder gauge				
5.	Autoclave gauge				

Checklist on Client Feedback

Sr. No.	Proforma	Yes	No
1.	Adequately filled		
2.	6-monthly analysis		
3.	Clients' feedback/suggestions incorporated accordingly for improvement of outlet (service delivery point)		

Checklist on Awareness of Quality Standards

Sr. No.	Auditable Areas Form (Quality Management System)	Yes	No
1.	Quality policy and job description awareness		
2.	Quality objective update		
3.	Availability of counsellor's kit		
4.	Availability of consent forms		

Checklist of Contraceptive Mix

Sr. No.	Auditable Areas Form (Quality Management System)	Yes	No
1.	Availability of all contraceptives according to minimum stock level		
2.	Random checking of contraceptive client record		
3.	Monthly performance report of previous 6 months duly filled in		
4.	Proper storage of facility medicines in cool and dry place		

Checklist of HRD/Training/Records

Sr. No.	Auditable Areas Form (Quality Management System)	Yes	No
1.	Training record of previous 1 year		
2.	Payment record of contraceptive surgeries completely filled up		

Checklist on Maintenance of Infrastructure

Sr. No.	Auditable Areas Form (Quality Management System)	Yes	No
1.	Housekeeping (whitewash)		
2.	Sanitation		
3.	Leakages		

Emergency Medicine List

1. Atropine Sulphate 1 mg/10 ml 5 ampoules
2. Dopamine 400 mg/10 ml 2 ampoules
3. Inj Dexamethasone 4 mg/ml 5 ampoules
4. Inj Epinephrine 1:10000/ml 5 ampoules
5. Inj Narcan 0.4 mg/ml 3 ampoules

2

COUNSELLING AND INFORMED CHOICE IN FAMILY PLANNING

Introduction

Counselling is one of the most important components of family planning (FP). It is the responsibility of service providers at all levels to offer effective counselling on FP methods in order to increase clients' satisfaction and ensure continuity in their method of choice.

Three Kinds of Family Planning Communication

Motivation

Motivation is a one-way process influencing the behaviour of a person in a particular direction. Motivational activities are biased. They often attempt to influence an individual or a group. Motivation for FP is the process of bringing about an attitudinal change for creating awareness to accept the advantages of the contraceptives that the provider wants to offer. For example, a service provider explains the advantages of a method but does not explain its limitations. The information is biased and incomplete and influences the client.

Giving Information

Information-giving activities focus on providing facts about methods. The information presented may be complete or limited and may be correct or incorrect.

Counselling

Counselling is a two-way process in which unbiased information is given to the clients about all available methods so they can make a free, well-informed decision. FP counselling is the process of helping clients to make informed and voluntary decisions about the choice of contraceptives. Counselling focuses on the client's/patient's situation and needs.

Table 2-1. Family Planning/Reproductive Health Communication Activities

Activity	Goal	Content	Direction	Location
Motivation	Influencing behaviour in a particular direction	Propaganda or persuasion	One-way	Anywhere
Information Giving	Providing facts and raising awareness	Facts, complete or incomplete	One- or two-way	Anywhere
Counselling	A satisfied client having free and informed choice	Facts; Client's feelings and motives	Two-way	Private

Principles of Good Counselling

- **Treat each client well.** All clients deserve respect, regardless of their age, marital status, ethnic group, sex, or sexual and reproductive health (RH) behaviour. (See "Greet".)
- **Interact.** Each client is a different person. Ask questions, listen, and respond to each client's own needs, concerns, and situation. (See "Ask".)
- **Give the right amount of information.** Provide enough information for the client to make informed choices but not so much that the client is overloaded. (See "Tell".)
- **Tailor and personalize information.** Give clients the specific information that they need and want, and help clients see what the information means to them. (See "Tell".)
- **Provide the FP method that the client wants.** Provide the method unless a valid medical reason prevents it. (See "Help".)
- **Help clients remember instructions.** (See "Explain".)
- **Ask the client to return for follow-up.** (See "Return".)

The Counselling Process

Elements of Counselling

GATHER Approach¹

FP counselling has six elements, which can be remembered by the word GATHER.

G = GREET the client in a friendly and polite manner.

A = ASK and assess the client's knowledge, needs, and feelings. Remove any doubts/concerns the client has and listen actively.

T = TELL the client about all available FP methods with the help of samples, flip charts, leaflets, and brochures.

¹ Adapted from: Gallen M, Lettenmaier C, and Green CP. 1987. Counseling makes a difference. *Population Reports Series J(35)*: 1–31.

- H = HELP** the client choose a method. A particular method may not be suitable for a particular client. Explain this clearly and help the client choose another method. If this method is not available, help by referring the person to a relevant facility.
- E = EXPLAIN** the use of the chosen method. This would include how it should be used, its effectiveness, advantages and limitations, possible side effects, warning signs, and follow-up regime. To ensure that the client has understood, ask the client to repeat the information given. The client must also be informed of the warning signs for which return to the facility is important.
- R = RETURN** for follow-up. At the follow-up visit, inquire if the client is still using the method. If the answer is “yes”, ask if there are any problems or side effects; also confirm that the method is being correctly used. Give appropriate advice about any minor side effects, and refer for treatment if side effects are severe.

In discussing contraceptive options with clients, the counsellor should briefly review all available methods, even if a client has a preference for a specific method. The counsellor should be aware of a number of factors about each client that may be important, depending on the method in question. These are:

- Reproductive goals of the client or couple (spacing or timing births)
- Personal factors including the time, travel costs, pain, or discomfort likely to be experienced
- Accessibility and availability of other methods at referral facilities
- The need for protection against STIs (e.g., hepatitis B and C, HIV/AIDS)

Counselling can be divided into three phases (see Figure 2-1 for the steps in counselling):

- **Initial counselling:** all methods are described and the client is helped to choose the most appropriate methods.
- **Method-specific counselling** prior to and immediately following service provision: the client is given instructions on how to use the method, and common side effects, warning signs, and follow-up regime are discussed.
- **Follow-up counselling:** during the return visit, use of the method, satisfaction with it, and any problem that may have occurred are discussed.

These important elements should be followed during counselling for every contraceptive method.

SAHR Approach:²

Another approach to counselling is SAHR. It is a client-centred approach and

² Adapted from: Population Council. 2005. *A Client-Centered Approach to Reproductive Health: A Trainer's Manual*. Population Council: Islamabad. At: http://www.popcouncil.org/pdfs/CCA_TrainersManual.pdf.

assures two-way exchange of information between the health care provider and the client in an environment of equality. In this approach, the provider and the client mutually negotiate a solution that helps in meeting the client's need. This approach has been developed and tested by the Population Council in Pakistan.

The acronym SAHR stands for:

- S** = Salutation (treat the client with dignity)
- A** = Assess the client's RH needs
- H** = Help negotiate a solution to the client's RH needs
- R** = Reassure the client

This framework ensures that clients select the best option/solution to their needs in a relaxed and friendly environment. See details at the end of this chapter.

Benefits of Counselling

Counselling is a vital part of FP. It helps clients:

- Arrive at an informed choice of reproductive options;
- Select a contraceptive method with which they are satisfied; and
- Use the chosen method safely and effectively.

Qualities of a Good Counsellor

Knowledge

A good counsellor should have knowledge of:

- Demographic profile: national and global perspective
- Hazards of rapid population growth on the socio-economic infrastructure of the country
- Legal status of FP in the country
- Government policies regarding population and development
- Influence of FP on the health of mother and child
- Fertility regulation in the Islamic context
- Common myths, misunderstandings, and misconceptions regarding FP and how they can be countered
- Local customs and traditions
- The human reproductive system (anatomy and physiology)
- Contraceptive technology update
- Client eligibility criteria, policies, and administrative procedures of the facility
- Concepts, principles, and goals of counselling
- Recordkeeping/reporting
- Follow-up/referral systems and procedures

Figure 2-1. Steps in Counselling

INITIAL COUNSELLING**Client Reception**

- Greet the client warmly and introduce yourself.
- Obtain basic information (name, address, etc.).

Counselling Area

- Ask about the client's reproductive goals and possible need for protection against STIs, including hepatitis B and C, HIV and AIDS. Ask if the client wants to space or limit births.
- Discuss the client's needs, concerns, and fears in a thorough and empathetic manner. Explore any attitudes or cultural or religious beliefs that either favour or eliminate one or more methods.
- Provide information about all contraceptive choices available and the risks and benefits of each. Help the client to choose an appropriate method.

METHOD-SPECIFIC COUNSELLING**Counselling Area**

- Once the client chooses a method:
- Make sure that the client has no medical condition that would be a problem or require more frequent follow-ups.
 - Clearly discuss the characteristics of the method, emphasizing the following points:
 - Effectiveness
 - Use
 - Convenience, comfort, and reversibility
 - Protection against STIs, including hepatitis B and C and HIV and AIDS
 - Explain common side effects or problems associated with the method, especially any changes in the menstrual bleeding pattern, and be sure they are fully understood.
 - If the client is at risk for STIs, inform that use of a barrier contraceptive is a must.
 - Correct doubts and misinformation about the method.

Procedural/Examination Area

- Review client assessment data to determine if the client is an appropriate candidate for the method or if there is any problem that should be monitored more frequently while the client is using it.
- Counsel how to use the method and what to do if any problem or side effect arises. Special emphasis should be given to menstrual bleeding patterns.
- Provide information on warning signs, medical problems, and the need to return to the clinic immediately, should any occur.
- Assure that the client can return to the clinic at any time to receive advice and medical attention.
- Ask the client to repeat the instructions.
- Answer the client's questions.
- Complete the client's record.

FOLLOW-UP/RETURN VISIT COUNSELLING (CONTINUING CLIENT)**Counselling/Examination**

- If the client has problems, resolve them. This can include offering a new method or referring the client to an appropriate facility.
- Check whether the client is satisfied.
- Inquire about problems and respond to concerns about side effects or problems.
- Ask the client to repeat the instructions related to the selected method to confirm that the client understood well.

Skills

A good counsellor should be able to:

- Build up a good rapport with the clients.
- Deal with clients at their level of education and understanding.
- Show empathy.
- Deal tactfully with sensitive issues.
- Listen patiently to the client's point of view.
- Be discreet and maintain confidentiality.
- Pay full attention to the client's need.
- Help the client to make a decision.

Attitude

A good counsellor should:

- Have a positive attitude towards FP.
- Be unbiased towards different population groups.
- Give unbiased information on FP methods.
- Have a desire to work with people.
- Be punctual.
- Be a hard worker.
- Be pleasant and polite.
- Be helpful.
- Be empathetic.
- Be attentive to the client's problems.
- Not ridicule the client over any issue.
- Show tolerance for values that differ from her/his own values.
- Be aware of factors that affect decision-making.
- Provide counselling in local languages.
- Be well-versed in the local language(s) of the client population.
- Show respect for the right and ability of people to make their own decisions.
- Be comfortable with issues related to human sexuality and people's expressions of their feelings.

The provision of counselling should be part of every interaction with the client. Information and counselling commonly will come from more than one source. Therefore, all staff should be knowledgeable about all available contraceptive methods.

Counselling helps to establish a positive interpersonal relationship between service providers and clients. When providers treat clients as valued customers and give them good service by listening to, understanding, and responding to their needs, their clients are more likely to be satisfied. When clients are satisfied with their treatment at a clinic, they will tell their friends and relatives about their good experience (and conversely, if they are dissatisfied they will pass along their bad experience, too).

Standards of a Good Counsellor

Effective counselling focuses on the client's individual needs and situation. Good counsellors are willing to listen and respond to the client's questions and concerns. The good counsellor:

- Understands and respects the client's rights.
- Earns the client's trust.
- Understands the benefits and limitations of all contraceptive methods.
- Understands the cultural and emotional factors that affect a client's or a couple's decision to use a particular contraceptive method.
- Encourages the client to ask questions.
- Uses a non-judgemental approach that shows the client respect and kindness.
- Presents information in an unbiased, client-sensitive manner.
- Listens to the client's concerns actively.
- Understands the effect of nonverbal communication.
- Recognizes when to refer the client to an appropriate facility.
- Attends to the client as quickly as possible.

Guidance Tools Can Improve Counselling

Using audiovisual aids, such as flip charts, can help providers communicate effectively with the clients and tailor information according to clients' individual situations and needs at both the initial and return visits. Checklists can be a useful screening tool for health care providers in resource-poor settings.

Instructions to the Counsellor

Give Information Clearly so That the Clients Understand

- Use simple words and short sentences in a language the client understands.
- Use pictures and models adapted to the local culture.
- Show samples of different contraceptives, and let the client handle them.
- Stop from time to time to ask if the client has understood.

- Ask if the client has any questions.
- Repeat instructions.
- Ask the client to repeat the instructions.
- Give the client written or printed information to take home.

Counsellor's Kit

- Diagrams of male and female reproductive anatomy/modules/flip chart
- Samples of all available contraceptive methods
- A checklist of the minimum information that all clients should receive
- A leaflet on common questions and answers about Islam and FP
- A list of referral outlets
- A list of contra-indications for all methods

Informed Choice

Informed choice means that a person freely makes a carefully considered decision based on accurate, useful information. An important purpose of FP counselling is to help the client make informed choices about FP and RH.

“Informed” means that:

- Clients have the clear, accurate, and specific information required to make their reproductive choices, including a choice among FP methods.
- Good-quality FP programs explain each FP method as needed, without overloading clients with information, and helping clients to use each method effectively and safely.
- Clients understand their own needs because they have thought about their own situations through interpersonal communication and through mass-media messages.

“Choice” means that:

- **Clients have a range of FP methods to choose.** Health care providers offer different methods to suit clients' needs. If a method cannot be provided, then the clients are referred to another facility.
- **Clients make their own decisions.** Counsellors help the clients think through their decisions, but do not persuade the clients to make a certain choice.

Informed Consent

Informed consent is the client's voluntary decision to opt for any contraceptive after receiving all relevant information regarding the requested method.

Special care should be taken when a client is:

- Pregnant, and specifically, consent should not be obtained when a woman is in labour
- Mentally retarded

Client Assessment

The primary objectives of assessing a clients prior to providing FP services are to determine:

- That the client is not pregnant;
- Whether any conditions requiring precaution exist for a particular method; and
- Whether there are any special problems that require further assessment, treatment, or regular follow-up.

This information usually can be determined by asking a few key questions. Unless specific problems are identified, the safe provision of most contraceptive methods, except IUCDs and voluntary sterilization, does not require performing a physical or pelvic examination because:

- The currently available low-dose combined (oestrogen and progestin) contraceptives, such as combined oral contraceptives (COCs) and combined injectable contraceptives (CICs), are quite safe.
- Progestin-only implants, injectables, and pills are free of oestrogen-related effects, and the amount of progestin delivered per day is lower than with COCs.

With the exception of condoms, no contraceptive method provides protection against STIs (e.g., hepatitis B and C, HIV/AIDS). All clients should be made aware of the risks of STI transmission.

How to Be Reasonably Sure That the Client Is Not Pregnant

One can reasonably be sure that a client is not pregnant if there are no signs or symptoms of pregnancy (e.g., breast tenderness or nausea) and she:

- Has not had intercourse since her last menses; or
- Has been correctly and consistently using a reliable contraceptive method; or
- Is within the first 7 days after the start of menses (days 1–7); or
- Is within 4 weeks postpartum (for non-breastfeeding women); or
- Is within the first 7 days postabortion; or
- Is fully breastfeeding, less than 6 months postpartum, and has had no menstrual bleeding yet.

When a woman is more than 6 months postpartum, the health care provider can be reasonably sure that the client is not pregnant if:

- Breastfeeding frequency is kept high;
- She has no menstrual bleeding (amenorrhoeic); and
- No clinical signs or symptoms of pregnancy are present.

Pelvic examination is seldom necessary, except to rule out pregnancy of greater than 6 weeks, measured from the last menstrual period (LMP).

Pregnancy testing is unnecessary except in cases where:

- It is difficult to confirm pregnancy (i.e., 6 weeks or less from the LMP); or
- The results of the pelvic examination are equivocal (e.g., the client is overweight, making sizing the uterus difficult).

In these situations, a sensitive urine pregnancy test may be helpful, if readily available and affordable. If pregnancy testing is not available, counsel the client to use a temporary contraceptive method like condoms or abstain from intercourse until menses occurs or pregnancy is confirmed.

Counselling of Clients with Special Needs

FP offers freedom from fear of unplanned pregnancy and can improve sexual life, partner relations, and family well-being. Many contraceptive methods are available, including methods that are short- or long-acting, permanent or reversible, hormonal or non-hormonal, and for use by women or men. When properly provided and used, currently available contraceptives are safe and effective for the vast majority of users.

Most healthy women are eligible to use any method of contraception and can select a method that best meets their needs. As a woman moves through the different stages of reproductive life, her contraceptive needs and her health status may change. Not all methods are equally acceptable at each stage of a woman's life. Adolescents, postpartum and postabortion women, breastfeeding women, and women over the age of 35 are groups with special contraceptive and counselling needs.

Adolescents

Adolescents who are married need access to safe and effective contraception. Many adolescents use no contraception or use a method irregularly, so they are at high risk of unwanted pregnancy, unsafe abortion, and STIs. In general, adolescents are eligible to use any method of contraception. Services should avoid unnecessary procedures that might discourage or frighten teenagers, such as requiring a pelvic examination when they request contraceptives.

Postabortion Women

Women who recently have had an abortion have special RH needs that influence their contraceptive options. Counsellors should be aware of these health issues so that they can provide appropriate counselling. Most important are the postabortion women who may face immediate, acute, and possibly life-threatening medical problems. Women with abortion-related complications need immediate medical attention as well as appropriate information and counselling with respect to FP once their condition has stabilized.

Postpartum Women

Women who recently have given birth also have special RH needs that influence their contraceptive options. In postpartum women, return to fertility is influenced by whether the woman is breastfeeding. In women who are not breastfeeding, the first postpartum ovulation may occur at any time from day 30 to day 90 after delivery. Women who are not breastfeeding or who have weaned their infants are eligible to use any contraceptive method, provided that there are no delivery-related complications and they are screened for any existing health conditions.

Breastfeeding Women

Women who are breastfeeding also have special health needs and concerns. They should not use a contraceptive method that will affect breast milk or the health of the infant, such as a combined oral contraceptive pill or combined injectables. These methods should be delayed until after 6 months. Progestin-only methods should be delayed until after 6 weeks, and an IUCD may be inserted either within 48 hours of delivery or after 6 weeks postpartum.

Women over Age 35

Although many women achieve the desired family size by the time they reach 35 years, women remain fertile until menopause, which generally occurs between the ages of 45 and 55 years. Contraception is recommended until 1 year after the menstrual cycle ceases. In addition, women over age 35 may need protection against STIs, including HIV. Access to appropriate and acceptable contraceptives is important for women in the later reproductive years because pregnancy after age 35 carries increased health risks for both the woman and child. A woman's choice and use of contraceptives during this time may be influenced by whether she wants more children, has health problems (such as diabetes, hypertension, anaemia, or genital tract disorders), or smokes, as well as by her previous experience with contraceptives. For women who are experiencing uncomfortable menopausal symptoms, oestrogen-containing hormonal methods may be a good choice, as they can alleviate some symptoms. Because older women are more likely to have pre-existing health problems, FP programmes should provide careful screening and counselling for these women when providing contraception.

Services for Clients with Chronic Health Problems

Clients with chronic or serious health problems still need access to safe and effective contraception. Providing an appropriate contraceptive method for these clients can be complicated since the health condition may limit the contraceptive choices. The counsellor must know about possible interactions among medical conditions, drugs, and contraceptives, and must be able to provide appropriate counselling. Women who have chronic or serious medical conditions may need medical follow-up and monitoring more often than other women. In balancing the needs and desires of the client, counsellors must consider that, for women with serious health conditions that make pregnancy dangerous, providing no contraceptive method would be even more dangerous than providing a method with minor side effects. Issues of mentally handicapped clients also need to be addressed through proper counselling of their spouses and family members.

Contraception for HIV-Infected Women

Women infected with HIV face a variety of RH decisions involving their desire for pregnancy, their contraceptive practices, and choices and decisions if an unintended pregnancy occurs. HIV-infected women should be allowed to make these decisions freely. Interventions to offer voluntary FP can give these women more control over their reproductive lives and serve as a strategy to prevent perinatal HIV infection.

Male condoms, used consistently and correctly, are effective in preventing HIV transmission if either partner is infected with HIV. Female condoms also offer significant protection from STIs, but their use has been limited by cost and user acceptability. Other methods of contraception such as hormonal contraceptives and IUCDs are effective in preventing unplanned pregnancies, but do not prevent HIV transmission.

Special Needs of Abused Women

Abused women clearly have special needs, including medical, psychological, and legal support, and safe housing for themselves and their children. To be effective, solutions must acknowledge the whole problem. Health care planners and other health care providers are in an excellent position to intervene because they represent one of the few institutions to come in contact with most women during their reproductive lives, the time of highest risk for domestic violence. FP providers must become aware of power imbalances and the resulting health effects. They cannot do their jobs effectively without being concerned about how the issue of power affects women's RH.

The most important contraceptive service for women in violent relationships is counselling, which must include recognition of the woman's difficulties with her partner and help in choosing a method that will not make those difficulties worse. Ideally, it will include referral or in-house professional counselling regarding violence issues and the resources available in the community.

Battered women who cannot protect themselves from STIs through condom use may need repeated screening and treatment for STIs. Emergency contraception is also a pressing need for many battered women.

Counselling Men

Men have special counselling needs and should receive special attention from health care providers to motivate them to make responsible choices regarding RH practices.

Men's Special Counselling Needs

- Men should be encouraged to support women's use of FP methods or to use FP methods themselves.
- It is important to talk to young men about responsible and safe sex before they become sexually active.
- Men often have less information or are more likely to be misinformed about FP methods, male and female anatomy, and reproductive functions because they tend to talk less about these issues than women.
- Men are often more concerned about sexual performance and desire than women.
- Men often have serious misconceptions and concerns that FP methods will negatively affect their sexual pleasure and/or performance.
- Men are often concerned that women will become promiscuous if they use FP.
- Many men do not know how to use condoms correctly. Health care providers should always demonstrate correct condom use, using a model when possible.
- Men are often not comfortable going to a health facility, especially if it serves women primarily.

Encourage men to participate in FP. Involving men can be crucial to a continuing client strategy. Men are more likely to support continued contraceptive use when they participate.

Counsellors can involve men and serve them better if they take four steps:

- Offer men FP and other RH services.
- Provide men with accurate information about FP.
- Explain how men can assure their own RH as well as that of their partners.
- Encourage couples to talk to each other about FP, as well as talking to health care providers.

Counsellors can often encourage men to talk with their partners about practicing FP and sharing decision-making by appealing to their sense of responsibility in family matters.

Rumours and Misconceptions

Rumours are unconfirmed stories that are transferred from one person to another by word of mouth. In general, rumours arise when:

- An issue or information is important to people, but it has not been clearly explained.
- There is nobody available who can clarify or rectify the incorrect information.
- The source of the rumour is perceived to be credible.
- People are motivated to spread them for political reasons.

A misconception is a mistaken interpretation of ideas or information. If a misconception is imbued with elaborate details and becomes a fanciful story, then it acquires the characteristics of a rumour.

Methods for Counteracting Rumours and Misconceptions

- When a client mentions a rumour, always listen politely. Do not ridicule her/him.
- Define what a rumour or misconception is.
- Find out where the rumour came from and talk with the people who started it or repeated it. Check whether there is some basis for the rumour.
- Explain the facts.
- Use strong scientific facts about FP methods to counteract misinformation.
- Always tell the truth. Never try to hide side effects or problems that might occur with various methods.
- Clarify information with the use of demonstrations and visual aids.
- Give examples of people who are satisfied users of the method (only if they are willing to have their names used). This kind of personal testimonial is most convincing.
- Reassure the client by examining and informing her/him about the findings.
- Counsel the client about all available FP methods.
- Reassure and let the client know that further care will be provided through home visits.

Relationship between Contraceptive Methods and Sexual Life

FP has much to do with sexual life and health protection and is not restricted to decisions relating to procreation. Any member of the community who is of reproductive age should be considered a potential FP client.

FP services are a type of preventive health service. Therefore, the rights of FP clients should be seen in the overall context of the rights of the clients for any health services.

The Rights of Family Planning Clients

Right to Information

All individuals in the community have a right to information about the benefits of FP for themselves and for their families.

Right to Access

All individuals in the community have a right to receive services from FP programmes, regardless of their social status, economic situation, religion, political belief, ethnic origin, marital status, geographical location, or any other group identity.

Right of Choice

Individuals and couples have the right to decide freely whether or not to practice FP. A client's concept of acceptability and appropriateness changes with circumstances. Therefore, the right of choice also involves clients' decisions concerning discontinuation or switching of method.

Right to Safety

Family planning clients have a right to safety while practicing FP. This right to safety implies the following:

- Clients have a right to protection against any possible negative effect of a contraceptive method on their physical and mental health.
- Since unwanted pregnancies may represent a risk to health, the right of the client to safety also includes the right to effective contraception.
- When receiving FP services, clients also have a right to protection against the possibility of acquiring infection from contact with a contaminated instrument.

Right to Privacy

When discussing needs or concerns, the client has a right to an environment in which she/he feels confident and relaxed. Auditory and visual (during examination) privacy should be ensured.

Right to Confidentiality

The client should be assured that any information disclosed or any details of the services received will not be communicated to others without consent.

Right to Dignity

FP clients have a right to be treated with courtesy, consideration, and attentiveness, and with full respect of their dignity, regardless of their level of education and social status.

Right to Comfort

The client has a right to comfort. This right of the client is intimately related to adequacy and quality of services (e.g., service delivery sites should have proper ventilation, lighting, seating, and toilet facilities). The environment in which the services are provided should be in keeping with the cultural values, characteristics, and demands of the community.

Right of Continuity

Clients have a right to receive contraceptive services and supplies for as long as they need them. The services provided to a particular client should not be discontinued unless the decision is made jointly between the counsellor and the client.

Right of Opinion

Clients have the right to express their positive or negative views (thanks or complaints) about the quality of services they receive at the facility.

Table 2-2. Comparative Statement of Failure Rate of Different Contraceptives in First Years of Use³

Family Planning Method	First-Year Pregnancy Rates (Trussell ^a)		12-Month Pregnancy Rates (Cleland and Ali ^b)
	Consistent and Correct Use	As Commonly Used	As Commonly Used
Implants	0.05	0.05	
Vasectomy	0.1	0.15	
Levonorgestrel IUCD	0.2	0.2	
Female sterilization	0.5	0.5	
Copper-bearing IUCD	0.6	0.8	2
Lactational amenorrhoea method (LAM) (for 6 months)	0.9	2	
Monthly injectables	0.05	3	
Progestin-only injectables	0.3	3	2
Combined oral contraceptives	0.3	8	7
Progestin-only oral pills	0.3	8	
Combined patch	0.3	8	
Combined vaginal ring	0.3	8	
Male condoms	2	15	10
Ovulations method	3		
TwoDay Method	4		
Standard Days Method	5		
Diaphragms with spermicide	6	16	
Female condoms	5	21	
Other fertility awareness methods		25	24
Withdrawal	4	27	21
Spermicides	18	29	
Cervical cap	26 ^b 9 ^a	32 ^b 16 ^a	
No method	85	85	85

^a Trussell J. Contraceptive efficacy. In: Hatcher R et al., eds. 2007. *Contraceptive Technology*, 19th revised ed. Rates for monthly injectables and cervical cap are from Trussell J. Contraceptive failure in the United States. 2004. *Contraception* 70(2): 89–96.

^b Cleland J and Ali MM. 2004. Reproductive consequences of contraceptive failure in 19 developing countries. *Obstetrics and Gynecology* 104(2): 314–320.

KEY

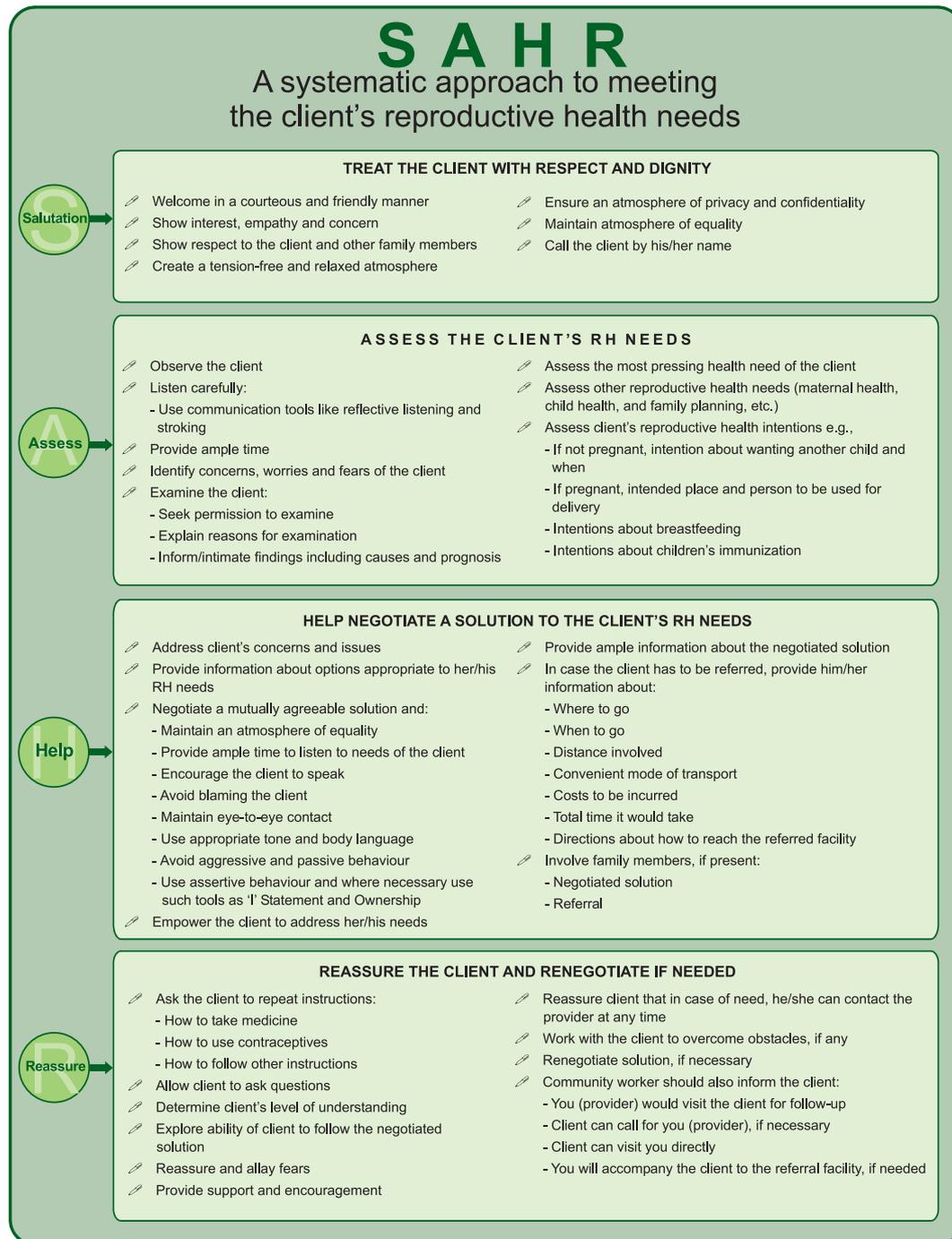
0-0.9
Very effective

1-9
Effective

10-25
Moderately effective

26-32
Less effective

³ Source: World Health Organization Department of Reproductive Health and Research (WHO/RHR) and Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs (CCP), INFO Project. 2007. *Family Planning: A Global Handbook for Providers*. CCP and WHO: Baltimore and Geneva.

Figure 2-2. The SAHR Approach to Counselling⁴

⁴ Adapted from: Population Council. 2005. *A Client-Centered Approach to Reproductive Health: A Trainer's Manual*. Population Council: Islamabad. At: http://www.popcouncil.org/pdfs/CCA_TrainersManual.pdf.

3

HEALTHY TIMING AND SPACING OF PREGNANCY

Introduction

In June 2005, the World Health Organization (WHO) brought together more than 30 technical experts to review the available global scientific evidence regarding optimal birth spacing and to answer the following questions:

- Does pregnancy spacing affect the health of mothers and newborns?
- How long should a woman wait to get pregnant again after childbirth?
- How long should a woman wait to get pregnant after a miscarriage or induced abortion?

The set of recommendations called Healthy Timing and Spacing of Pregnancy (HTSP) is based on the results of this technical consultation.¹

Key Research Findings about the Risks of Closely Spaced Pregnancies

Short birth intervals are associated with multiple adverse outcomes for mothers and newborns, including increased maternal and newborn death rates.

An infant born after a short birth interval has increased chances of:

- Being born pre-term
- Having below normal weight at birth
- Being small for gestational age
- Dying

A woman who becomes pregnant too quickly following a previous birth/miscarriage or induced abortion faces higher risks of:

¹ World Health Organization (WHO). 2006. *Report of a WHO Technical Consultation on Birth Spacing, Geneva, Switzerland, 13–15 June 2005*. WHO: Geneva.

- Anaemia
- Premature rupture of membranes
- Abortion
- Miscarriage
- Death

Early pregnancy (when the mother is younger than age 18) is associated with an increased risk of health complications for mothers and newborns, compared to women ages 20–24 years old. Adolescent mothers ages 15–19 are twice as likely to die during pregnancy or childbirth as those over 20; and girls below the age of 15 are five times more likely to die.

Three Components of Healthy Timing and Spacing of Pregnancy

- **After a live birth**, the recommended minimum interval before attempting the next pregnancy is at least 24 months (but not more than 5 years) in order to reduce the risk of adverse maternal, perinatal, and infant outcomes.
- **After a miscarriage or induced abortion**, the recommended minimum interval before attempting the next pregnancy is at least 6 months in order to reduce the risk of adverse maternal and perinatal outcomes.
- **Delay timing of the first pregnancy** in adolescents until age 18 to reduce the risk of adverse maternal, perinatal, and infant outcomes.

Country Profile: Pakistan and Birth Spacing

Approximately one in three births in Pakistan occurs less than 24 months after a previous birth. The shortest birth interval (21 months) occurs among women ages 15–19, who are already at the highest risk of pregnancy-related complications.² These short intervals have important implications for maternal and child health.

Policy

Information about optimal birth spacing as well as the benefits of HTSP and the need for timely initiation of a family planning (FP) method after childbirth, miscarriage, or abortion will be incorporated with health education, counselling, and service delivery for women and their families wherever they receive medical care. These health care sites include FP clinics, antenatal clinics, birthing facilities, postpartum and postnatal care facilities, and other facilities like Basic Health Units (BHUs) and Family Welfare Centres (FWCs) where mothers and children receive routine health care.

² National Institute of Population Studies (NIPS) [Pakistan], and Macro International Inc. 2008. *Pakistan Demographic and Health Survey 2006–07*. National Institute of Population Studies and Macro International Inc.: Islamabad.

Standards

The following standards will be observed:

- The client will be given full information about optimal pregnancy spacing and the benefits of HTSP as a part of FP health education and counselling. The importance of timely initiation of an FP method after childbirth, miscarriage, or abortion will be emphasized.
- The client's right to make a free and informed choice regarding eventual family size and fertility will be respected.

Rationale

Closely spaced pregnancies are associated with higher maternal and neonatal mortality rates as well as higher mortality rates among infants and older children under age 5.

Many women would prefer to avoid pregnancy but are not using any form of FP. These women are considered to have an “unmet need” for FP. In Pakistan, 64 percent of women in the first year postpartum have an unmet need for FP. Only 22 percent are using any method of FP during the first year postpartum, and only 12 percent of women desire another birth in the next 2 years.³

The Difference between “Birth Interval” and “Interpregnancy Interval”

The **birth-to-birth interval** (or birth interval) is the length of time from the birth of one baby until the birth of the next baby.

The **interpregnancy interval** (or “birth to pregnancy”) is the length of time from the birth of one baby to the conception of the next baby.

It is easiest to discuss HTSP with women using the birth to pregnancy interval, i.e., how long to wait before trying to get pregnant again.

Important Definitions	
Perinatal period	From the 20 th week of pregnancy to 28 days of life
Neonatal period	The first 28 days of a newborn's life; synonymous with “newborn”
Infant	From 28 days-1 year of life

³ Borda M. 2009. *Family Planning Needs during the Extended Postpartum Period in Pakistan*. ACCESS-FP Program: Baltimore, Maryland.

Benefits of HTSP for Newborns and Infants

- Lower risk of stillbirth
- Lower risk of neonatal death
- Lower risk of preterm birth
- Lower risk of low birth weight
- Lower risk of being small for gestational age
- Extended interval of breastfeeding associated with improved nutrition

Benefits of HTSP for Mothers

- Lower risk of maternal death
- Lower incidence of induced abortion
- Lower risk of third trimester bleeding and premature rupture of membranes
- Lower risk of postpartum endometritis
- Lower risk of miscarriage
- Lower risk of anaemia
- Allows for 2 years of breastfeeding, which is linked with a reduced risk of breast and ovarian cancer

Benefits of HTSP for Delaying Early Childbearing among Adolescents

- Lower risk of maternal death (Adolescents ages 15–19 are twice as likely to die during pregnancy or childbirth as those over 20; and girls below the age of 15 are five times more likely to die.)
- Lower incidence of induced abortion
- Lower incidence of pregnancy- and delivery-related complications such as premature labor, low birth weight newborns, pre-eclampsia, and fistula, which are more common among adolescent mothers

Key HTSP Messages during Family Planning Counselling

- Benefits of pregnancy spacing after a live birth.
- Benefits of pregnancy spacing after a miscarriage or induced abortion.
- Benefits of older age at first pregnancy.
- Importance of initiating an FP method soon after childbirth, miscarriage, or abortion. Fertility may return within 4–6 weeks for women who are not exclusively breastfeeding and as early as 2 weeks after miscarriage or abortion.

Women who are practicing the lactational amenorrhoea method (LAM) should make a transition to another FP method before the baby is 6 months old.

Figure 3-1. HTSP Messages for Different Situations and Clients

For couples who desire a next pregnancy after a live birth, the messages are:	For couples who decide to have a child after a miscarriage or abortion, the messages are:	For adolescents, the messages are:
<p>For the health of the mother and the baby, wait at least 24 months, but not more than 5 years, before trying to become pregnant again.</p> <p>Consider using an FP method of your choice during that time.</p> <p>If you are not exclusively breastfeeding, return to fertility may occur within 4-6 weeks of childbirth. Consider starting an FP method shortly after birth.</p> <p>If you are practicing LAM, fertility may return when:</p> <ul style="list-style-type: none"> • The baby is 6 months of age, OR • You are no longer exclusively breastfeeding, OR • Your menses has returned. <p>Consider starting an FP method before the baby is 6 months old.</p>	<p>For the health of the mother and the baby, wait at least 6 months before trying to become pregnant again.</p> <p>Consider using an FP method of your choice during that time.</p> <p>Fertility may return as early as 2 weeks after a miscarriage or abortion. Consider starting an FP method immediately after miscarriage or abortion.</p>	<p>For your health and your baby's health, wait until you are at least 18 years of age before trying to become pregnant.</p> <p>Consider using an FP method of your choice until you are 18 years old.</p>

Counselling Skills for HTSP

The table below describes the counselling skills and strategies to be used by the counsellor for different types of clients or client visits.

Table 3-1. HTSP Counselling Strategies for Different Types of Clients⁴

Client Type	Usual Counselling Tasks
Returning clients with no problems	<ul style="list-style-type: none"> • Provide more supplies or routine follow-up. • Ask a friendly question about how the client is doing with the method. • Assess her intentions with regard to becoming pregnant; remind her of the benefits of HTSP, as appropriate.
Returning clients with problems	<ul style="list-style-type: none"> • Understand the problem and help resolve it. • Help the client choose another method, if she so desires, so that she does not discontinue the use of her method and risk an unplanned or closely spaced pregnancy. • Remind her of the importance of using an FP method of her choice to ensure HTSP.
New clients with a method in mind	<ul style="list-style-type: none"> • Check that the client's understanding of the method is accurate. • Support the client's choice, based on your assessment of the client's situation and if the client is medically eligible for the method. • Discuss how to use the method and how to cope with any side effects. • Discuss the health benefits of HTSP specific to her situation (e.g., delay to age 18, spacing postpartum or postabortion) and how FP can help her maintain her health and ensure healthy pregnancies.
New clients with no method in mind	<ul style="list-style-type: none"> • Discuss the client's situation, where she is in her reproductive cycle, her plans (such as fertility intentions and desired family size), and what is important to her about a method. • Help the client consider methods that might suit her particular situation. If needed, help her reach a decision. • Support the client's choice, give instructions on use, and discuss how to cope with any side effects. • Discuss the health benefits of HTSP specific to her situation (e.g., delay to age 18, spacing postpartum or postabortion) and how FP can help her maintain her health and ensure healthy pregnancies.

⁴ Adapted from: World Health Organization Department of Reproductive Health and Research (WHO/RHR) and Johns Hopkins Bloomberg School of Public Health/Center for Communications Programs (CCP), INFO Project. 2007. *Family Planning: A Global Handbook for Providers*. CCP and WHO: Baltimore and Geneva.

The SAHR Approach for HTSP⁵

SAHR is a client-centred approach to FP counselling that emphasizes a two-way exchange of information between the health care provider and the client in an atmosphere of mutual respect. When SAHR is used, the provider and the client mutually negotiate a solution that helps in meeting the client's needs. This approach has been developed and tested by the Population Council in Pakistan.

Table 3-2. The Elements of SAHR Adapted for HTSP

Element of the Approach	What the Counsellor Does
<p>S SALUTATION Treat the client with dignity</p>	<ul style="list-style-type: none"> • Welcome the client in a courteous manner. • Create a relaxed atmosphere. • Show interest, empathy, and concern. • Show respect to the client and family. • Ensure an atmosphere of privacy. • Ensure confidentiality. • Maintain an atmosphere of equality. • Call the client by the client's name.
<p>A ASSESS Assess the client's RH needs</p>	<ul style="list-style-type: none"> • Observe the client. • Listen carefully and provide ample time. • Use communication tools like reflective listening. • Ask appropriate questions (i.e., open-ended, indirect and non-suggestive). • Ask the client's need for coming to the clinic. • Ask the client what method she or he is interested in. • Ask the client's reproductive needs (short-term, long-term, and permanent) and review the number and timing of prior pregnancies, births, miscarriages, and abortions. • Assess the source of decision-making at home. • Assess what the client knows about FP methods and past experiences with FP including FP use for delaying, spacing, or limiting pregnancies, now and in the past. • Take client's history appropriate to the method. • Examine the client if necessary. • Determine underlying attitudes and health beliefs about FP and birth spacing in a non-judgemental way. • Assess the client's risk of contracting a sexually transmitted infection and HIV.

⁵ Adapted from: Population Council. 2005. *A Client-Centered Approach to Reproductive Health: A Trainer's Manual*. Population Council: Islamabad. At: http://www.popcouncil.org/pdfs/CCA_TrainersManual.pdf.

Element of the Approach	What the Counsellor Does
<p>H HELP</p> <p>Help negotiate a solution to the client's RH needs</p>	<ul style="list-style-type: none"> • Correct rumours and misinformation about FP methods, birth timing, and spacing. • Negotiate a mutually agreeable solution. • Maintain an atmosphere of equality. • Provide ample time to listen. • Encourage the client to speak. • Avoid giving unsolicited advice. • Avoid blaming the client. • Maintain eye contact. • Use an appropriate tone and body language. • Avoid aggressive and passive behaviour. • Adopt assertive behaviour. • Practice reflective listening. • Provide a wide range of options. • Help the client choose a method by providing information about the options appropriate to his/her need, focusing on advantages, limitations, and potential side effects as well as benefits of HTSP. • Based on the client's knowledge of FP, provide clear information on the chosen method. • Explain to the client how to use the chosen method. • Explain any warning signs. • Try to discuss the mutually agreed-upon solution with other members of the client's family, with client's consent and where appropriate. Include benefits of HTSP. • If the client is a revisit, assess/help client to reconsider reproductive needs as appropriate and reinforce benefits of HTSP where appropriate.
<p>R REASSURANCE</p> <p>Reassure the client</p>	<ul style="list-style-type: none"> • Reassure the client about any minor side effects to expect. • Ask the client to repeat instructions given. • Discuss return visit and follow-up with the client. • Encourage the client to return at any time with questions/problems. • Renegotiate if necessary. • Politely say goodbye with an open invitation to return.

4

ASEPSIS/INFECTION PREVENTION IN FAMILY PLANNING

Introduction

Infection prevention and infection control are fundamental to the success of any family planning (FP) program that offers a variety of options to its clients, ranging from IUCD insertion/removal, injectables, and implants to surgical contraception.

To prevent infection, remember that expensive, sophisticated equipment is not essential. A simple procedure such as handwashing, or using protective gloves before handling contaminated instruments or soiled linen, is effective in preventing or reducing the risk of spreading infection. Likewise, inexpensive equipment and facilities can provide a safe environment for performing FP procedures, including surgery. An example is the drastic reduction in the risk of all types of hepatitis viruses and HIV transmission by decontamination of table surfaces, gowns, gloves, and instruments with the use of chlorine solution. High-level disinfection (HLD) preceded by decontamination and proper cleaning is acceptable only where autoclaving is not possible.

Standard Precautions

The key components of Standard Precautions and their use are outlined in the box on the next page. Placing a physical, mechanical, or chemical barrier between micro-organisms and an individual or a client is a highly effective means of preventing the spread of infections. For example, the following actions create protective barriers for preventing infections and provide the means for implementing the new Standard Precautions:

- **Consider every person** (client or staff) as potentially infectious and susceptible to infection.
- **Wash hands**, the most important procedure for preventing cross-contamination (person to person or contaminated object to person).
- **Wear gloves** (both hands) before touching anything wet, broken skin,

mucous membranes, blood or other body fluids, or soiled instruments and contaminated waste materials, or before performing invasive procedures.

- **Use physical barriers** (protective goggles, face masks, and aprons) if splashes and spills of any body fluids (secretions and excretions) are likely (e.g., cleaning instruments and other items).
- **Use antiseptic agents** for cleansing the skin or mucous membrane prior to surgery, cleaning wounds, or doing hand rubs or surgical hand scrubs with an antiseptic product.
- **Use safe work practices** such as not recapping or bending needles, safely passing sharp instruments, and suturing with blunt needles.
- **Safely dispose of infectious waste materials** to protect those who handle them and prevent injury or spread of infection to the community.

Standard Precautions: Key Components¹

Handwashing (or using an antiseptic hand rub):

- Before and after client/patient contact
- After touching blood, body fluids, secretions, excretions, and contaminated items
- Immediately after removing gloves
- After examining each client/patient

Gloves:

- For contact with blood, body fluids, secretions, and contaminated items, mucous membranes, and broken skin

Masks, goggles, face masks:

- Protect eyes, nose, and mouth when contact with blood and body fluids is likely

Gowns:

- Prevent infection by minimizing shedding/contamination from provider (shedding of dead skin, micro-organisms and dirt carried by clothes)
- Protect skin from blood or body fluid contact
- Prevent soiling of clothing during procedures that may involve contact with blood or body fluids

Linen:

- Handle soiled linen in a manner that prevents it from touching skin or mucous membranes

Client care equipment:

- Handle soiled equipment in a manner that prevents contact with skin or mucous membranes and prevents contamination of clothing or the surrounding area
- Clean reusable equipment prior to use

Environmental cleaning:

- Clean and disinfect equipment and furnishings in client care areas

Client resuscitation:

- Use mouthpieces/gauze, resuscitation bags, or other ventilation devices to avoid infection during mouth-to-mouth resuscitation

Client placement:

- Clients who are a potential source of infection should be dealt with separately

¹ Adapted from: Tietjen L, Bossemeyer D, and McIntosh N. 2003. *Infection Prevention Guidelines for Healthcare Facilities with Limited Resources*. Jhpiego: Baltimore, Maryland.

Standard Precautions: Key Components¹

Sharps:

- Safe passing of sharps during surgical procedures like tubal ligation
- Used needles must not be recapped
- Used needles must not be removed from disposable syringes
- Do not bend, break, or manipulate used needles by hand
- Place used sharps in specific puncture-resistant containers and transport in specified containers

Hand Hygiene

Handwashing: The purpose of handwashing is to mechanically remove soil and debris from the skin, and reduce the number of transient micro-organisms. Handwashing with plain soap and clean water is as effective as washing with antimicrobial soaps. In addition, plain soap causes less skin irritation.

Handwashing is different from surgical hand scrub and should be done before:

- Examining a client/patient
- Wearing gloves for any routine procedure/examination

Handwashing should be done after:

- Any situation in which hands may become contaminated, such as:
 - Handling soiled instruments and other items,
 - Touching mucous membranes, blood, or other body fluids (secretions or excretions), and
 - Having contact with a client.
- Removing gloves

To encourage handwashing, programme managers should make every effort to provide soap and a continuous supply of clean water, either from the tap or a bucket, and single-use towels.

Antiseptic hand rub: It is done when simple handwashing is not possible or is difficult. Use of an antiseptic hand rub is more effective in killing transient and resident flora than handwashing with antimicrobial agents or plain soap and water. It is quick and convenient to perform, and gives a greater initial reduction in hand flora. Antiseptic hand rubs also contain a small amount of an emollient such as glycerin, propylene glycol, or sorbitol that protects and softens skin.

To be effective, an adequate amount of hand rub solution should be used. For example, by increasing the amount of hand rub from 1 ml to 5 ml per application (about 1 teaspoonful), the effectiveness increases significantly.

A non-irritating, antiseptic hand rub can be made by adding glycerin, propylene glycol, or sorbitol to alcohol (2 ml in 100 ml of 60–90 percent ethyl or isopropyl

alcohol solution). Use 5 ml (about 1 teaspoonful) for each application and continue rubbing the solution over the hands until they are dry (15–30 seconds).

Surgical hand scrub: The purpose of the surgical hand scrub is to mechanically remove soil, debris, and transient organisms and to reduce resident flora during surgery. The goal is to prevent wound contamination by micro-organisms from the hands and arms of the surgeon and assistants.

For many years, preoperative hand scrubbing protocols required at least a 6- to 10-minute vigorous scrub with a brush or sponge, using soap containing an antiseptic agent (chlorhexidine or an iodophor). This practice, however, has been shown to damage the skin and can result in increased shedding of bacteria from the hands. Several studies suggest that neither a brush nor sponge is necessary to reduce bacterial counts on the hands of surgical staff to acceptable levels. For example, a 2-minute handwashing with soap and clean water followed by application of 2–4 percent chlorhexidine or 7.5–10 percent povidone iodine was shown to be as effective as a 5-minute hand scrub with an antiseptic soap. As a result, the guidelines for performing the general surgical scrub technique have been made less harsh and take less time to perform.

Applying an antiseptic minimizes the number of micro-organisms on hands under the gloves and minimizes the growth of flora during surgery. This is important because gloves may have inapparent holes or tears, or may be nicked during surgery.

Alternatively, handwashing with plain soap and water followed by use of an antiseptic hand rub containing chlorhexidine has been shown to yield significantly greater reductions in microbial counts on hands, improve skin health, and reduce time and resources.

The steps for performing this simpler and shorter surgical hand scrub technique are:

- Step 1: Remove rings, watches, and bracelets.
- Step 2: Thoroughly wash hands, especially between fingers, and forearms to the elbows with soap and water.
- Step 3: Clean nails with a nail brush.
- Step 4: Rinse hands and forearms with water and dry thoroughly with a clean, dry towel or air dry.
- Step 5: Apply 5 ml (about 1 teaspoonful) of an antiseptic hand rub to hands and forearms and rub until dry, then repeat application and rubbing two more times for a total of at least 2 minutes, using a total of about 15 ml (3 teaspoonfuls) of the hand rub.
- Step 6: Keep hands up and away from the body; do not touch any surface or article prior to putting sterile or high-level disinfected surgical gloves on both hands.

Gloves

Although the effectiveness of gloves in preventing contamination of health care providers' hands has been repeatedly confirmed, wearing gloves does not replace the need for handwashing. For example, even the best quality latex surgical gloves may have inapparent defects, gloves may be torn during use, and hands can become contaminated during glove removal. A separate pair of gloves must be used for each client to avoid cross-contamination.

Types of Gloves

There are three types of gloves used in health care facilities:

- Surgical gloves should be used when performing invasive medical or surgical procedures.
- Examination gloves provide protection to health care workers when they are performing many of their routine procedures.
- Utility or heavy-duty household gloves should be worn for processing instruments, equipment, and other items, for handling and disposing of contaminated waste, and when cleaning contaminated surfaces.

When surgical gloves are reused, they must be checked carefully for tears or cuts before final processing.

Table 4-1. Glove Requirements for Common Medical and Surgical Procedures¹

Task/Activity	Gloves Needed	Gloves Preferred	Gloves Acceptable
Blood pressure check	No	-----	-----
Temperature check	No	-----	-----
Injection	No	-----	-----
IV injection	No	-----	-----
Pelvic examination	Yes	Examination	HLD Surgical
IUCD insertion (loaded in sterile package and inserted using no-touch technique)	Yes	Examination	HLD Surgical
IUCD removal (using no-touch technique)	Yes	Examination	HLD Surgical
Norplant® implants insertion and removal	Yes	Sterile Surgical	HLD Surgical
Vasectomy or laparoscopy	Yes	Sterile Surgical	HLD Surgical
Handling and cleaning instruments	Yes	Utility/Examination	HLD Surgical
Handling contaminated waste	Yes	Utility/Examination	HLD Surgical
Cleaning blood or body fluid spills	Yes	Utility/Examination	HLD Surgical

Personal Protective Equipment and Drapes

Protective barriers, now commonly referred to as personal protective equipment (PPE), have been used for many years to protect clients from micro-organisms present on staff working in the health care setting. More recently, with the emergence of AIDS and HCV and the resurgence of tuberculosis and strains of influenza in many countries, use of PPE has become important for protecting the health care staff as well.

PPE includes gloves, masks/respirators, eyewear (face shields, goggles, or glasses), caps, gowns, aprons, and other items. In many countries, caps, masks, gowns, and drapes are made of cloth or paper. The most effective barriers, however, are made of treated fabrics or synthetic materials (e.g., plastic) that do not allow water or other liquids (blood or body fluids) to penetrate them. These fluid-resistant materials are not widely available because they are expensive. Lightweight cotton cloth (with a thread count of 140/inch²) is the material most commonly used for surgical clothing (masks, caps, and gowns) and drapes. Unfortunately, lightweight cotton does not provide an effective barrier because moisture can pass through it easily, allowing contamination. Denims, canvas, and heavy twill, on the other hand, are too dense for steam penetration (i.e., they cannot be sterilized), are hard to wash, and take too long to dry. When fabric is used, it should be white or light in color in order to show dirt and contamination easily.

Types of Personal Protective Equipment

Gloves protect hands from infectious materials and protect clients from micro-organisms on health care providers' hands. They are the most important physical barrier for preventing the spread of infection, but they must be changed between each client contact to avoid cross-contamination. For example, examination gloves should be worn when handling blood, body fluids, and surfaces or equipment contaminated with secretions or excretions and while touching non-intact skin or mucous membranes.

Masks should be large enough to cover the nose, lower face, jaw, and facial hair. They are worn in an attempt to contain the moisture droplets expelled when health care providers or surgical staff speak, cough, or sneeze, as well as prevent accidental splashes of blood or other contaminated body fluids from entering the health care provider's nose or mouth. Unless the masks are made of fluid-resistant materials, they are not effective in preventing either.

Eyewear protects health care providers in the event of an accidental splash of blood or other body fluid by covering the eyes. Eyewear includes clear plastic goggles, safety glasses, etc. Prescription glasses or glasses with plain lenses also are acceptable. Masks and eyewear should be worn when performing any task in which an accidental splash into the face is likely (e.g., performing a surgical procedure or cleaning instruments).

Caps are used to keep the hair and scalp covered so that flakes of skin and hair are not shed into the wound during surgery. Caps should be large enough to cover all hair. While caps provide protection to the client, their primary purpose is to protect the wearer from blood or body fluid splashes and sprays.

Scrub suits or cover gowns are worn over or instead of regular clothes. The main use of cover gowns is to protect the health care providers' clothing. Scrub suits usually consist of drawstring pants and a shirt. The neck of the shirt must not be cut so low as to slide off the wearer's shoulders. There is little evidence that scrub suits are needed during routine procedures when soiling of clothes is not likely.²

Surgical gowns were first used to protect clients from micro-organisms present on the abdomen and arms of health care providers during surgery. Surgical gowns made of fluid-resistant materials do play a role in keeping blood and other fluids, such as amniotic fluid, away from clients and health care workers, particularly in operating, delivery, and emergency rooms. Lightweight cotton gowns, which are available in most countries, offer little protection. Under these circumstances, if large spills occur, the best things to do is shower or bathe as soon as possible after completing the operation or procedure. If surgical gowns are worn, sleeves should either taper gently towards the wrists or end with elastic or ties around the wrists. (Large, droopy sleeves invite accidental contamination.)

In addition, the cuffs of the surgical gloves should completely cover the end of the sleeves.

Footwear is worn to protect feet from injury by sharps or fluids on the operating theatre floor. Theatre shoes/slippers must be kept clean and free of contamination from blood or other body fluid spills. All of the theatre shoes/slippers must be washed daily with antiseptic solutions and must not be worn outside the theatre. Any shoe taken outside the operating theatre must not be taken to the theatre again unless it is thoroughly cleaned and washed with an antiseptic solution and dried properly.

Drapes are usually made of hemmed linen in squares of varying sizes. They are used to create an operative field around an incision, wrap instruments and items for sterilization, cover tables in the operating room, and keep clients warm during surgical procedures. The main types of drapes are:

- **Towel drapes** are used for drying hands, covering around the operative site, and wrapping small instruments. They are often made of heavier cotton cloth than other linen items, which makes them more water-resistant.
- **Drapes or lap sheets** are used for covering the client. They are large, usually made of lightweight cotton, and provide only limited protection to clients and health care providers.

² Goldman DA. 1991. The role of barrier precautions in infection control. *Journal of Hospital Infection* 18(Suppl. A): 515–523.

- **Pack wrapper drapes** are large drapes that become a table cover when the sterile instrument pack is opened. This drape needs to be large enough only for wrapping the instruments and, when opened, to cover the tabletop completely.

Using Drapes for Surgical Procedures

Using sterile towel drapes to create a work area around the incision limits the amount of skin that needs to be cleaned and prepared with antiseptic solution prior to placing the drapes. Although this area is often called the sterile field, it is not completely sterile. Cloth drapes allow moisture to soak through them and can help spread organisms from skin, even after surgical cleansing with an antiseptic agent, into the incision. Thus, gloved hands (sterile or high-level disinfected), sterile or high-level disinfected instruments, and other items should not touch the towel drapes once they are in place. Because cloth drapes do not serve as an effective barrier, clean, dry towel drapes can be used if sterile towel drapes are not available.

The way in which the operative site is prepared and draped depends on the type of procedure to be performed. The following guidelines for draping are designed to reduce overuse of costly sterile items and avoid unnecessary draping:

- All drapes should be applied around a completely dry, widely prepared area.
- If sterile drapes are used, sterile or high-level disinfected surgical gloves should be worn when placing the drapes. (When putting drapes in place, health care workers must take care not to touch the client's body with gloved hands.)
- Drapes should be handled as little as possible and should never be shaken or flapped.
- Always hold drapes above the area to be draped and discard if they fall below this area.

Use of Antiseptic

Although antiseptics are sometimes used as disinfectants (e.g., Savlon or Dettol for processing instruments and other inanimate objects), they are not formulated for this use. They do not have the same killing power as chemical disinfectants (e.g., glutaraldehyde, hypochlorite, and peroxides) and should not be used for this purpose.

Plain soap is as effective as antimicrobial soap, provided the water is clean. Water that contains large amounts of particulate matter (makes the water cloudy) or is contaminated (high bacterial count) should not be used for performing a surgical hand scrub. In addition, antimicrobial soaps are costly and are more irritating to the skin than plain soap.

Skin Preparation prior to Surgical Procedures

Although skin cannot be sterilized, applying an antiseptic solution minimizes the number of micro-organisms around the surgical wound that may contaminate and cause infection.

Instructions:

- Step 1: Trim the hair close to the skin surface with scissors immediately before surgery. Do not shave hair around the operative site as it increases the risk of infection 5–10 fold because the tiny nicks in the skin provide an ideal setting for micro-organisms to grow and multiply.
- Step 2: Ask the client about allergic reactions (e.g., pyodine preparations) before selecting an antiseptic solution.
- Step 3: If the skin or external genital area is visibly soiled, gently wash it with soap and clean water and dry the area before applying the antiseptic.

Select the antiseptic solution from the following recommended products:

- Alcohol-based solutions (tinctures) of pyodine or chlorhexidine
 - Alcohols (60–90 percent ethyl, isopropyl, or methylated spirit)
 - Chlorhexidine gluconate (2–4 percent) (e.g., Hibitane, Hibiscrub, Hibiclens®)
 - Chlorhexidine gluconate and cetrimide, various concentrations (at least 2 percent) (e.g., Savlon)
 - Iodine (3 percent); aqueous iodine iodophors (7.5–10 percent), various other concentrations (e.g., Betadine), Chloroxylenol (Para-chloro-metaxyleneol or PCMX 0.5–3.75 percent), various other concentrations (e.g., Dettol)
- Step 4: Using dry, high-level disinfected forceps and new cotton or gauze squares soaked in antiseptic, thoroughly cleanse the skin. Work from the operative site outward for several centimetres. (A circular motion from the centre out helps to prevent contamination of the operative site with local skin bacteria.)
- Step 5: Allow enough time for the antiseptic to be effective before beginning the procedure. For example, when an iodophor is used, allow 2 minutes or wait until the skin is visibly dry before proceeding, because the active agent is released slowly.

Note: Do not allow the antiseptic to pool underneath the client's body because it can irritate the skin.

Instructions for Cervical or Vaginal Preparation

For cervical and vaginal antisepsis, prior to inserting a uterine elevator for minilaparotomy or IUCD, select an aqueous (water-based) antiseptic such as an iodophor (povidone-iodine) or 2–4 percent chlorhexidine gluconate (e.g., Hibiclens or Savlon if properly prepared). Do not use alcohol or alcohol-containing preparations, such as Dettol. Alcohols cause burn and they also dry and irritate mucous membranes, which in turn promote the growth of microorganisms. In addition, hexachlorophene (pHisoHex[®]) is neurotoxic and should not be used on mucous membranes, such as the vaginal mucosa, because it is readily absorbed.

Skin Preparation for Injections

According to WHO (World Health Organization) and its Safe Injection Global Network (SIGN), swabbing of clean skin with an antiseptic solution prior to giving an injection is unnecessary, because in controlled trials no infections were noted. In addition, a review of microbiologic studies did not suggest that wiping the skin with an antiseptic, before giving an intradermal, subcutaneous, or intramuscular injection, reduces the risk of infection.

If the injection site is visibly soiled, wash the site with soap and water and dry with a clean towel, and then give the injection.

Safe Practices in Operating Rooms

In the past decade, awareness of the risk of exposure to blood and body fluids containing HIV, HBV, and most recently HCV has created a new era in surgical infection prevention practices. Just as clients must be protected from wound contamination and infections, the health care providers must also be protected from intra-operative injuries and exposure to clients' blood and other body fluids.

Preventing infections following an operation is a complex process that begins in the operating room by preparing and maintaining a safe environment for performing the surgery. Surgical aseptic techniques are designed to create such an environment by controlling the four main sources of infectious organisms: the client, health care providers, equipment, and operating room surroundings. Although the client is often the source of surgical infections, the other three sources are important and should not be overlooked.

Specific techniques required to establish and maintain surgical asepsis and make the surgical surroundings safer include the following:

- **Client considerations:** Skin cleaning pre-operatively, skin antisepsis, and wound covering.

- **Health care provider considerations:** Hand hygiene (handwashing and/or hand rub with waterless, alcohol-based antiseptic agents) or hand scrubbing; use and removal of gloves and gowns.
- **Equipment and room preparation considerations:** Traffic flow and activity patterns as well as housekeeping practices and decontamination, cleaning and either sterilization or high-level disinfection of instruments, gloves, and other items.
- **Surrounding considerations:** Maintaining an aseptic operating field and using safer operating practices and techniques.

Instruments Causing Injuries

The vast majority of sharps injuries in hospitals occur in the operating room and most are due to scalpel and suture needles being most frequently used during operations. Many other items can also cause sharps injuries and glove tears resulting in exposure to blood. Some of the most important items that are used in an FP clinic and can cause injury are:

- Skin hooks and towel clips
- Sharp-pointed scissors and sharp-tipped mosquito forceps and dissecting forceps used in no-scalpel vasectomy (NSV)
- Sharp-toothed tenaculi
- Scalpel blades
- Hypodermic needles
- Suture needles
- Laparoscopy and implant trocars

Almost all of these injuries can be easily avoided with no extra expenditure. For example:

- Use a small Mayo forceps (not fingers) when holding the scalpel blade, putting it on or taking it off, or loading the suture needle. (Alternatively, use disposable scalpels with a permanent blade that cannot be removed.)
- Always use tissue forceps, not fingers, to hold tissue when using a scalpel or suturing.
- Use a hands-free technique to pass or transfer sharps (scalpel, needles, and sharp-tipped scissors) by establishing a Safe or Neutral Zone in the operative field.
- Always remove sharps from the field immediately after use.
- Make sure that sharps containers are replaced when they are only three-quarters full and place containers as close to and convenient for the health care provider as possible (i.e., within arm's reach).

A safer method of passing sharps (scalpels, suture needles, and sharp scissors) during surgery, called the hands-free technique, has recently been recommended. This technique for sharps is inexpensive, simple to use, and ensures that the surgeon, assistant, or scrub assistant never touches the same instrument at the same time.

Instruments passed with the hands-free technique (besides those listed above) include anything sharp enough to puncture a glove (e.g., trocars, sharp-tipped mosquito forceps, and loaded needle holders). Using the hands-free technique, the assistant places a sterile or high-level disinfected kidney tray/basin, or other suitable small container, on the operative field between the assistant and the surgeon. The container is designated as the Safe or Neutral Zone in which sharps are placed before and immediately after use.

Another way to do this is to have the assistant place the instrument in a container and pass it to the surgeon. The surgeon lifts the instrument out of the container, which is left on the operative site until the surgeon returns the instrument to it. The assistant then picks up the container and returns it to the Mayo stand.

Table 4-2. Reducing the Risk of Exposure

Function	Safer	Less Safe	Least Safe!
Skin incision	Cautery	Disposable scalpel	Scalpel with removable blade
Cutting	Scissors, blunt tip or cautery probe	Scissors, sharp tip	Scalpel
Haemostasis	Blunt suture needles, staples, or cautery	Sharp suture needles	Wire sutures
Sponging with gauze while using a scalpel	Surgeon does sponging; assistant only retracts	Assistant sponges only on request	Assistant sponges spontaneously (no communication)
Retraction	Blunt retractor	Sharp retractor	Fingers or hands
Sharps transfer	Neutral Zone	Hand-to-hand (communication)	Hand-to-hand (no communication)
Surgical gloves	Double-gloving	Single pair of gloves or double-gloving with reprocessed gloves	Single pair of reprocessed gloves
Closing peritoneum (small, 2-3 cm incision)	Do not close	Purse-string closure using tissue forceps to grasp needle	Purse-string closure using fingers to grasp needle

Safe Handling of Hypodermic Needles and Syringes

In the operating room, scalpels and suture needles are the leading source of penetrating injuries. Hypodermic (hollow-bore) needles cause the most injuries to health care providers at all levels. Consider:

- Surgeons and assistants are most often stuck by hypodermic needles during procedures.
- Cleaning staff are most often stuck by needles when washing soiled instruments.
- Housekeeping staff are most often stuck by needles when disposing of infectious waste material.

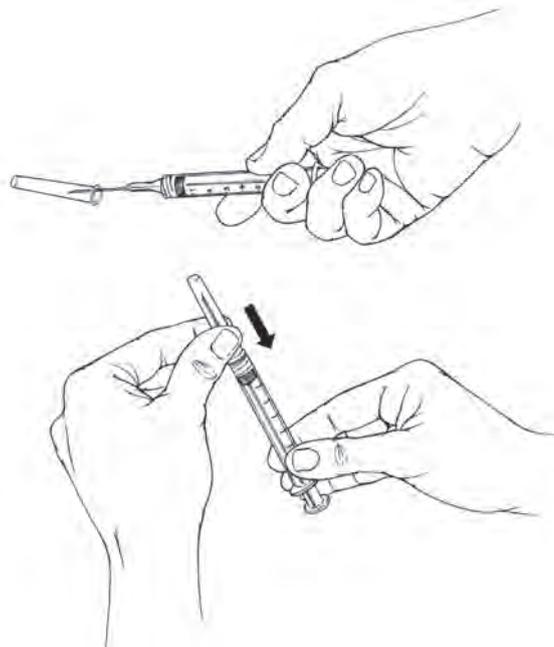
Safety Tips for Using Hypodermic Needles and Syringes

- Use needle and syringe only once.
- Do not disassemble the needle and syringe after use.
- Do not recap, bend, or break needles prior to disposal.
- Decontaminate the needle and syringe prior to disposal.
- Dispose of the needle and syringe in a puncture-resistant container.

If the needle has to be recapped, use the one-handed recap method:

- First, place the needle cap on a firm, flat surface; then remove your hand.
- Next, with one hand holding the syringe, use the needle to “scoop” up the cap.
- With the cap now covering the needle tip, turn the syringe upright (vertical) so that the needle and syringe are pointing towards the ceiling.
- Finally, using the forefinger and thumb of your other hand, grasp the cap just above its open end and push the cap firmly down onto the hub (the place where the needle joins the syringe under the cap).

Figure 4-1. One-Handed Recap Method



Source: Tietjen L, Bossemeyer D, and McIntosh N. 2003. *Infection Prevention Guidelines for Healthcare Facilities with Limited Resources*. Jhpiego: Baltimore, Maryland.

Sharps Containers

Using sharps disposal containers helps prevent injuries from sharps. Sharps containers should be fitted with a cover, and should be puncture-proof, leak-proof, and tamper-proof (difficult to open or break). If plastic or metal containers are unavailable, use containers made of dense cardboard (cardboard safety boxes) that meet WHO specifications. If cardboard safety boxes are unavailable, easily available objects can substitute as sharps containers:

- Tin with a lid
- Thick plastic bottle
- Heavy plastic box
- Heavy cardboard box

Recommendations for Safe Use of Sharps Containers

- All sharps containers should be clearly marked “SHARPS” and have pictorial instructions for their use and disposal.
- Place sharps containers away from high-traffic areas and as close as possible to where the sharps will be used. Do not place containers near electric switches, overhead fans, or thermostat controls where people might accidentally put one of their hands into them.
- Attach containers to walls or other surfaces if possible. Position the containers at a convenient height so staff can use and replace them easily.
- Never reuse or recycle sharps containers.
- Mark the containers clearly so that people will not unknowingly use them as garbage receptacles.
- Do not fill the safety box beyond three-quarters of its capacity.
- Avoid shaking a container to settle its contents to make room for more sharps.

Infection Prevention Techniques

Asepsis and aseptic techniques are general terms used to describe the combination of efforts made to prevent entry of micro-organisms into any area of the body where they are likely to cause infection. The goal of asepsis is to eliminate or reduce to a safe level the number of micro-organisms on both animate (living) surfaces such as skin and other body tissues, and inanimate objects (e.g., surgical instruments).

Antisepsis is the prevention of infection by killing or inhibiting the growth of micro-organisms on skin and other body tissues.

Instrument Processing

Steps for infection prevention techniques are necessary for all surgical procedures, including FP and maternal and child health care. The steps are:

Decontamination

Decontamination is the first step in handling large surfaces (e.g., examination or operating tables), surgical instruments, and linen and gloves contaminated with blood or body fluids during or following surgical procedures. This step, taken before cleaning, makes the handling of these contaminated objects safer for the health care providers, especially cleaning personnel, and it reduces the risk of transmitting infections.

Chlorine Solutions for Decontamination and High-Level Disinfection

WHO recommends 0.5 percent chlorine solution for decontaminating surfaces and instruments before cleaning. The solution is fast-acting, very effective against hepatitis and HIV viruses, inexpensive, and readily available as common bleaching agents (sodium hypochlorite solutions). It is extremely useful for decontaminating large surfaces such as examination tables. These surfaces should be wiped with 0.5 percent chlorine solution, and rinsed with water and dried to prevent corrosion.

To decontaminate examination/operating table tops, wipe the surface with 0.5 percent chlorine solution. For articles such as linen, gloves, and instruments, soak them in 0.5 percent chlorine solution for 10 minutes. This solution can be prepared from household liquid bleach or powder available in different concentrations.

Chlorine solution is also effective in high-level disinfection of instruments. A major disadvantage is corrosion of metals if instruments are left too long in the solution. Using a plastic container, however, you can safely soak stainless steel instruments in 0.1 percent chlorine solution for up to 20 minutes for high level-disinfection. Afterwards, rinse them with boiled water and dry them promptly to prevent corrosion. The solution deteriorates rapidly; hence, use a fresh one daily and also whenever the solution becomes visibly cloudy.

Preparation of Chlorine Solution

Precautions

- Turn off the fan.
- Wear gloves, cap, mask, and eye glasses to avoid splashing in eyes and preventing irritating effects.
- Always use plastic containers and spoons.
- Make fresh solution, every day; discard the solution if it becomes cloudy.
- Do not expose the solution to direct sunlight.

Method of Preparation

Formula for preparing 0.5 percent chlorine solution:

- Bleaching powder:
 - Grams per litre = % of dilution required / % of concentration of powder x 1000
- Liquid bleach:
 - Parts of water = % of concentrate given on container (liquid bleach) / % of dilution required - 1

Steps of Preparation

- Calculate the amount of water and bleach.
- Put the calculated parts of clean tap water in a plastic container.
- Add calculated parts of liquid bleach/powder (when preparing with powder, add small amount of water to make the paste and then add the rest of the water).
- Stir well.

Cleaning

Cleaning is the process that physically removes all visible blood, body fluids, or any other foreign material such as dust or soil from the inanimate objects. It improves the quality of subsequent high-level disinfection or sterilization.

To clean examination/operating table tops, linen, gloves, and storage containers, wash organic material that remains after decontamination with detergent and water. Then wipe the table top and rinse other items with clean water. For cleaning instruments, use a brush to remove all particles.

Sterilization

Sterilization is the process that eliminates all micro-organisms, including bacterial endospores, from inanimate objects. Some of the sterilization techniques are mentioned below.

Sterilization through Autoclaving

For this purpose, temperatures of 121°C and 15 pounds pressure (pounds per square inch) are required for 20 or 30 minutes (when unwrapped or wrapped respectively), depending upon the article to be sterilized. These temperatures are achieved by the use of an autoclave in which steam generated drives out the air, increases the pressure, and raises the temperature to the required level.

Remember to properly load the autoclave with appropriately wrapped and positioned instruments and other equipment; otherwise, sterilization will be inadequate. Also, insert a sterilization indicator tape to ensure that all objects are exposed to the hot steam.

Sterilization of many instruments, such as those with cutting edges and glass syringes, is better performed with dry heat. Temperatures of 170°C are required for 20 or 30 minutes (when unwrapped or wrapped respectively). To ensure even heating, an electric oven fitted with a fan is necessary.

Chemical Sterilization

Chemical sterilization achieves disinfection by using liquid chemicals and is recommended for equipment and items that cannot be autoclaved. Chemicals destroy or inhibit the growth of bacteria and other micro-organisms similar to heating, i.e., by protein coagulation or enzyme inhibition. The objects that are easiest to sterilize chemically are those with a smooth, flat, and firm surface such as a laparoscopic instrument.

Items are sterilized by soaking them in a particular chemical solution (such as the one containing glutaraldehyde), followed by rinsing them in sterile/boiled water.

Cidex, which contains glutaraldehyde, is a commonly available solution used for sterilization. Other products containing glutaraldehyde or other chemical sterilizers may be locally available, but make sure that the solution to be used is appropriate for sterilization.

Remember that:

- Glutaraldehyde is irritating to the skin, eyes, and respiratory tract. While using it, wear gloves, limit exposure time, and keep the area well ventilated.
- The length of time that glutaraldehyde solutions can be used varies, usually from 14–30 days. Always follow the manufacturer's instructions regarding proper storage temperatures and expiry date. Solutions should be replaced any time they become cloudy.

Formaldehyde is potentially cancer-causing and extremely irritating to the skin, eyes, nose, and respiratory tract. Therefore, routine use of formaldehyde for sterilizing instruments and other items is not recommended.

Instructions for chemical sterilization:

- Choose the appropriate disinfectant.
- Follow directions for proper dilution of the chemical.
- Soak items in the solution for the required period of time.
- Completely immerse clean items in disinfectant.
- Rinse items thoroughly with sterile or boiled water or sterilized normal saline.
- If needed, dry the items with a sterile towel, or let them air dry.
- Use the sterile items immediately, or store them in a suitable, tightly closed sterile container for up to 1 week.

High-Level Disinfection

High-level disinfection (HLD), through boiling or the use of chemicals, eliminates all micro-organisms, viruses, bacteria, parasites, and fungi, with the exception of some bacterial endospores such as tetanus and gangrene. HLD for instruments that perforate skin and mucous membranes is acceptable only when autoclaving is not possible and all earlier stages of processing are observed.

High-Level Disinfection by Boiling

- Use a container with a lid for boiling instruments.
- Make sure that the items being processed for HLD are completely immersed in water.
- Boil all instruments for 20 minutes, calculating the time after the boiling point is reached.
- Do not add to or remove anything from the pot/container after water begins to boil.
- Air dry before use or storage.

High-Level Disinfection by Chemicals

Where boiling is not possible, HLD can also be done by using chemicals like glutaraldehyde or 0.1 percent chlorine solution.

When using a glutaraldehyde solution:

- Prepare it according to the instructions.
- If possible, use an indicator strip each time to determine if the solution is still effective.
- After preparing the solution, put it in a clean container with a lid.
- Mark the container with the date the solution was prepared and the date it expires.

When using a chlorine solution:

- Prepare the 0.5 percent chlorine solution as described for decontamination using boiled water. Fresh solution should be made each day or more often if the solution becomes cloudy.
- Items must be completely immersed in solution. Open all hinged instruments and disassemble items with sliding or multiple parts.
- Soak for 10 minutes.
- Prepare 0.1 percent chlorine solution.
- Immerse the items for 20 minutes.
- Rinse items thoroughly with boiled water.

Table 4-3. Infection Prevention in Processing Instruments and Equipment

Process	Decontamination	Cleaning	High-Level Disinfection	Sterilization ¹
Instruments/Equipment Pelvic exam table top or other large surface area	Wipe off with 0.5% chlorine	Wash with detergent and water if organic material remains after decontamination procedure	Not necessary	Not necessary
Linens (caps, gowns, masks, and surgical drapes)	<ul style="list-style-type: none"> Soak in 0.5% chlorine solution for 10 minutes if contaminated with blood or body fluids prior to cleaning Rinse and wash immediately² 	<ul style="list-style-type: none"> Wash with detergent and water, removing all particles Rinse with clean water Air dry 	Not necessary for caps, gowns, and masks. For surgical drapes: <ul style="list-style-type: none"> Boil or chemically HLD Air-dried surgical drapes should be ironed before use 	Not necessary for caps, gowns, and masks. For surgical drapes: <ul style="list-style-type: none"> Autoclave at 121°C (250°F) and 106 kPa (15 lbs/in²) for 20 minutes
Gloves (rubber or plastic)	<ul style="list-style-type: none"> Soak in 0.5% chlorine solution for 10 minutes prior to cleaning Rinse or wash immediately² 	<ul style="list-style-type: none"> Wash with detergent and water, removing all particles Rinse with clean water and check for holes Air dry 	<p>If touching only mucous membranes or broken skin (e.g., for pelvic exam or IUCD insertion):</p> <ul style="list-style-type: none"> Boil for 20 minutes in a container with a lid (start timing when water begins to boil) Gloves must be immersed completely in water Do not add anything to container after water begins to boil Air dry before use or storage 	<p>If used for surgery:</p> <ul style="list-style-type: none"> Autoclave at 121°C (250°F) and 106 kPa (15 lbs/in²) for 20 minutes

Instruments/Equipment	Decontamination	Cleaning	High-Level Disinfection	Sterilization
Instruments for pelvic examination and IUCD insertion (e.g., specula, tenacula, forceps, and uterine sounds)	<ul style="list-style-type: none"> Soak in 0.5% chlorine solution for 10 minutes Rinse or wash immediately² 	<ul style="list-style-type: none"> Using a brush, wash with detergent and water, removing all particles Rinse with clean water Air dry 	<p>Boiling:</p> <ul style="list-style-type: none"> Boil for 20 minutes in a container with a lid (start timing when water begins to boil) Instruments must be immersed completely in water during boiling Do not add anything to container after water begins to boil Air dry before use or storage <p>Chemical:</p> <ul style="list-style-type: none"> Soak for 20 minutes in: <ul style="list-style-type: none"> A glutaraldehyde and rinse well in water that has been boiled for 20 minutes 	<ul style="list-style-type: none"> Dry heat for 1 hour after reaching 170°C (340°F) or Autoclave at 121°C (250°F) and 106 kPa (15 lbs/in²) for 20 minutes (30 minutes if wrapped)
Instruments for voluntary sterilization and Norplant insertion	<ul style="list-style-type: none"> Soak in 0.5% chlorine solution for 10 minutes prior to cleaning (Rinse or wash immediately²) 	<ul style="list-style-type: none"> Using a brush, wash with detergent and water removing all particles Rinse with clean water, air or towel dry 	<p>Acceptable:³</p> <ul style="list-style-type: none"> Boil or do chemical HLD as above 	<ul style="list-style-type: none"> Dry heat for 1 hour after 170°C (340°F)
Needles and syringes	<ul style="list-style-type: none"> Fill assembled needle and syringe with 0.5% chlorine solution Soak for 10 minutes prior to cleaning Rinse by flushing three times with clean water 	<ul style="list-style-type: none"> Disassemble, then wash with detergent and water, removing all particles Rinse with clean water Air dry 	<p>Acceptable:³</p> <ul style="list-style-type: none"> Boil or do chemical HLD as above <p>Place items that float in a weighted, processed bag</p>	<ul style="list-style-type: none"> Dry heat for 1 hour after 170°C (340°F), or Autoclave at 121°C (250°F) and 106 kPa (15 lbs/in²) for 20 minutes (30 minutes if wrapped)

Instruments/Equipment	Decontamination	Cleaning	High-Level Disinfection	Sterilization
Storage containers for instruments	<ul style="list-style-type: none"> Soak in 0.5% chlorine solution for 10 minutes prior to cleaning Rinse or wash immediately² 	<ul style="list-style-type: none"> Wash with detergent and water, removing all particles Rinse with clean water Air dry 	<p>Boil container and lid as above; if container is too large, then:</p> <ul style="list-style-type: none"> Fill container with 0.1% chlorine solution and soak for 20 minutes Rinse with water that has been boiled for 20 minutes and air dry before use <p>Disinfect weekly, and when empty or contaminated</p>	<ul style="list-style-type: none"> Dry heat for 1 hour after reaching 170°C (340°F) or Autoclave at 121°C (250°F) and 106 kPa (lbs/in²) for 20 minutes (30 minutes if wrapped) <p>Disinfect weekly, and when empty or contaminated</p>
Endoscopes (laparoscopes)	<ul style="list-style-type: none"> Wipe exposed surfaces with gauze pad soaked with 60-90% alcohol Rinse immediately 	<ul style="list-style-type: none"> Disassemble, then wash with detergent and water, removing all particles Rinse with clean water Air dry 	<p>Soak for 20 minutes in:</p> <ul style="list-style-type: none"> Glutaraldehyde solution Rinse in water that has been boiled for 20 minutes 	<p>Sterilize daily if possible, using chemical sterilization. Soak in:</p> <ul style="list-style-type: none"> Glutaraldehyde for 10 hours Rinse with sterilized water or water that has been boiled for 20 minutes

¹ If unwrapped, use immediately; if wrapped, may be stored up to 1 week prior to use.

² Avoid prolonged exposure to chlorine solution to minimize corrosion of instruments and deterioration of rubber or cloth products.

³ If sterilization (dry heat or autoclave) not available, these items can be HLD either by boiling or soaking in chemical disinfectant.

⁴ Instruments with cutting edges or needles should not be sterilized at temperature above 160°C to avoid dulling.

Adapted from: Perkins JJ. 1983. *Principles and Methods of Sterilization in Health Sciences*, 2nd ed. Charles C. Thomas Publisher Ltd.: Springfield, Illinois.

Waste Management

Wastes from hospitals and health care facilities may be contaminated (potentially infectious) or non-contaminated.

Contaminated wastes include blood, pus, urine, stool, and other body fluids, as well as items that come in contact with them, such as used dressings. Wastes from operating rooms (human tissue, blood or blood soaked sponges, gauze, or cotton) and laboratories (blood, faeces, sputum, urine specimens, and microbiological cultures) should be considered contaminated. Soiled medical devices or items that can inflict injury (e.g., used needles and scalpel blades) are capable of spreading blood-borne diseases such as hepatitis B, hepatitis C, and AIDS and are also considered contaminated waste.

The purpose of waste management is to:

- Protect people who handle waste items from accidental injury.
- Prevent the spread of infection to health care providers who handle the waste.
- Prevent the spread of infection to the local community.

Open piles of waste should be avoided because they:

- Are risks to those who scavenge and unknowingly reuse contaminated items.
- Allow persons to accidentally step on sharp items and injure themselves.
- Produce foul odours.
- Attract insects and animals.

Proper disposal of contaminated waste may include:

- Pouring liquids or wet waste directly into a safe sewerage system.
- Incinerating (burning) items to destroy the item as well as any micro-organisms. (This is the best method for disposal of contaminated waste. Burning also reduces the bulk volume of waste and ensures that the items are not scavenged and reused.)
- Burying all contaminated wastes to prevent further handling.

Handling of Contaminated Waste

Proper handling of contaminated waste minimizes the spread of infection to health care personnel and to the local community. Whenever possible, contaminated waste should be collected and transported to disposal sites in leak-proof, covered waste containers.

- Use plastic or galvanized metal containers with tight-fitting covers for contaminated wastes. Many facilities now use colour-coded plastic bags to alert handlers to the contents and to keep the general (non-contaminated) waste separate from contaminated waste.

- Use puncture-resistant sharps containers for all disposable sharps (sharps that will not be reused).
- Place waste containers close to where the waste is generated and where convenient for users (carrying waste from place to place increases the risk of infection for handlers). This is especially important for sharps, which carry the highest risk of injury for health care providers.
- Equipment that is used to hold and transport wastes must not be used for any other purpose in the clinic or hospital. (Contaminated waste containers should be marked.)
- Wash all waste containers with a disinfectant cleaning solution (0.5 percent chlorine solution plus soap) and rinse with water regularly.
- When possible, use separate containers for combustible and non-combustible wastes prior to disposal. This step prevents workers from having to handle and separate wastes by hand later.
- Use PPE when handling wastes (e.g., heavy-duty utility gloves and closed protective shoes).
- Wash hands or use a waterless, alcohol-based antiseptic hand rub after removing gloves when handling wastes.

Disposal of Sharps

Disposal of sharp items (hypodermic needles, suture needles, razors, and scalpel blades) require special handling because they are the items most likely to injure health care providers who handle them as well as people in the community if these items go to the municipal landfill.

Encapsulation: Encapsulation is recommended as the easiest way to safely dispose of sharps. Sharps are collected in puncture-resistant and leak-proof containers. When the container is three-quarters full, a material such as cement (mortar), plastic foam, or clay is poured into the container until it is completely filled. After the material has hardened, the container is sealed and may be land-filled, stored, or buried. It is also possible to encapsulate chemical or pharmaceutical waste together with sharps.³

Steps for the Disposal of Sharps

- Step 1: Do not recap needle or disassemble needle and syringe.
- Step 2: After use, hold the needle tip under the surface of a 0.5 percent chlorine solution, fill the syringe with solution, and push out (flush) three times.
- Step 3: Place assembled needles and syringes to be disposed of in a puncture-resistant sharps container such as a heavy cardboard box, plastic bottle, or tin can with lid. The opening in the lid should be large enough so that

³ World Health Organization (WHO). 1999. *Safe Management of Wastes from Healthcare Activities*. WHO: Geneva.

items can be easily dropped through it, but small enough that nothing can be removed from inside. (Old intravenous fluid bottles may also be used, but they can break.)

Step 4: When the container is three-quarters full, it should be removed from the procedure area for disposal.

Disposing of the Sharps Container

Step 1: Wear heavy-duty utility gloves.

Step 2: When the sharps container is three-quarters full it should be capped, plugged, or taped tightly closed. Be sure that no sharp items are sticking out of the container.

Step 3: Dispose of the sharps container by burning, encapsulating, or burying.

Step 4: Remove utility gloves (wash daily or when visibly soiled, and dry).

Step 5: Wash hands and dry them with a clean cloth or towel or air dry. (Alternatively, if hands are not visibly soiled, apply 5 ml, about 1 teaspoonful, of an antiseptic hand rub and rub the solution vigorously onto hands until dry.)

How to Dispose of Solid Contaminated Waste

Solid contaminated waste (e.g., surgical specimens, used dressings, and other items contaminated with blood and organic materials) may carry micro-organisms.

Step 1: Wear heavy-duty or utility gloves when handling and transporting solid wastes.

Step 2: Dispose of solid wastes by placing them in a plastic or galvanized metal container with a tight-fitting cover.

Step 3: Collect the waste containers on a regular basis and transport the burnable ones to the incinerator or another area for burning.

Step 4: Remove utility gloves (wash daily or when visibly soiled and dry).

Step 5: Wash and dry hands or use an antiseptic hand rub as described above.

Incineration

Types of Incinerators

Incineration is a high-temperature process that reduces the volume and weight of waste. This process is usually selected to treat waste that cannot be recycled, reused, or disposed of in a sanitary landfill or dumpsite.

Incinerators can range from extremely sophisticated, high-temperature ones to very basic units that operate at much lower temperatures. All types of incinerators, if operated properly, eliminate micro-organisms from waste and reduce it to ashes.

Four basic types of incinerators are used for treating waste:

1. Double-chamber, high-temperature incinerators are designed to burn infectious waste.
2. Single-chamber, high-temperature incinerators are less expensive and are used when double-chamber incinerators are not affordable.
3. Rotary kilns operate at high temperatures and are used for destroying cytotoxic substances and heat-resistant chemicals.
4. Drum or brick (clay) incinerators operate at lower temperatures and are less effective, but can be made locally using readily available materials.

Open burning is not recommended because it is dangerous, unsightly, and the wind will scatter the waste.

For health care facilities with limited resources and where high-temperature incinerators are not affordable, waste may be incinerated in a drum incinerator. A drum incinerator is the simplest form of single-chamber incinerator. It can be made inexpensively and is better than open burning.

How to Build and Use a Simple Drum Incinerator for Waste Disposal

Step 1: Where possible, select a site downwind from the clinic.

Step 2: Build a simple incinerator using local materials (mud or stone) or a used oil drum (e.g., a 55-gallon drum). The size depends on the amount of daily waste collected.

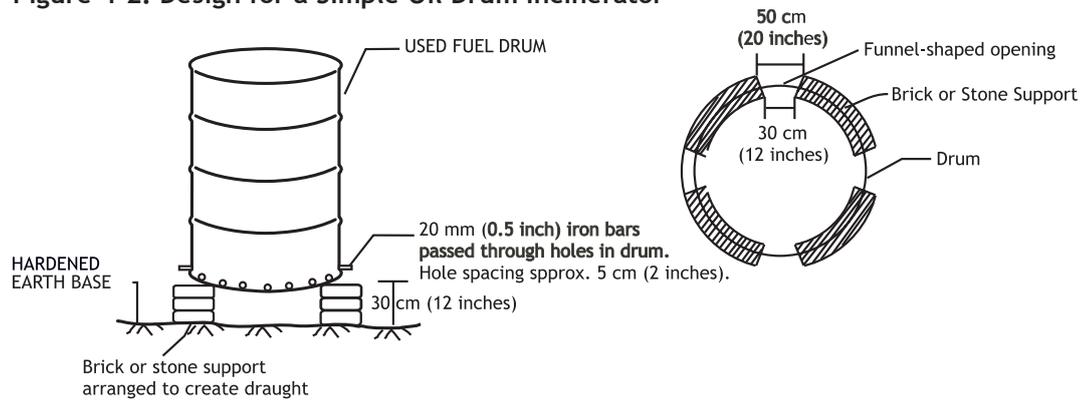
Step 3: Make sure the incinerator has:

- Sufficient air inlets underneath for good combustion.
- Loosely placed fire bars to allow for expansion.
- An adequate opening for adding fresh refuse and removing ashes.
- A long enough chimney to allow for a good draught and evacuation of smoke.

Step 4: Place the drum on hardened earth or a concrete base.

Step 5: Burn all combustible waste, such as paper and cardboard, as well as used dressings and other contaminated wastes. If the waste or refuse is wet, add kerosene so that a hot fire burns all of the waste. Ash from incinerated material can be treated as non-contaminated waste.

Figure 4-2. Design for a Simple Oil Drum Incinerator



Source: Tietjen L, Bossemeyer D, and McIntosh N. 2003. *Infection Prevention Guidelines for Healthcare Facilities with Limited Resources*. Jhpiego: Baltimore, Maryland, citing South East Asia Regional Office (SEARO)/World Health Organization. 1988. *A Manual on Infection Control in Health Facilities*. SEARO: New Delhi.

How to Make and Use a Small Burial Site for Waste Disposal

- Step 1: Find an appropriate location.
- Step 2: Dig a pit 1 metre (3 feet) square and 2 metres (6 feet) deep. The bottom of the pit should be 2 metres (6 feet) above the water table.
- Step 3: Dispose of the contaminated waste in the pit and cover the waste with 10–15 cm (4–6 inches) of dirt each day. The final layer of dirt should be 50–60 cm (20–24 inches) and compacted to prevent odours and attraction of insects, and to keep animals from digging up the buried waste. Depending on the volume of waste, the capacity of the pit should last for 30–60 days.

5

MEDICAL ELIGIBILITY CRITERIA

Introduction

Over the past 30 years, there have been significant advances in the development of new contraceptive technologies, including transitions from high-dose to low-dose combined oral contraceptives and from inert to copper- and levonorgestrel-releasing IUCDs.

In addition, combined injectable contraceptives, a combined hormonal patch and vaginal ring, progestin-only injectables, and implants have been introduced.

However, current policies and health care practices in some countries are based on scientific studies of contraceptive products that are no longer in wide use, on long-standing theoretical concerns that have never been substantiated, or on the personal preference or bias of service providers. These outdated policies or practices often result in limitations to both the quality of, and the access to, family planning (FP) services for clients.

This chapter is intended to update the medical eligibility criteria (MEC) used in the provision of fertility awareness methods, lactational amenorrhoea methods, barrier methods, all hormonal methods, IUCDs, male and female sterilization, and emergency contraception.

Barriers to Contraceptive Use

In recent years, attention has been focused on minimizing administrative barriers to FP, that is, unnecessary rules and regulations that burden clients and narrow their contraceptive choices. One type of administrative barrier, so-called medical barriers, has a medical rationale even though it is scientifically unjustified.¹ These barriers include:

¹ Bertrand JT et al. 1995. Access, quality of care, and medical barriers in family planning programs. *International Family Planning Perspectives* 21(2): 64–69, 74; Shelton J, Angle MA, and Jacobstein RA. 2001. Medical barriers to access to family planning. *Lancet* 340: 1334–1335; Stanback J et al. 1997. Menstruation requirements: A significant barrier to contraceptive access in developing countries. *Studies in Family Planning* 28(3): 245–250.

- Outdated contraindications that remain part of a programme's official guidelines or providers' informal screening routine, for example, refusing to supply oral contraceptives to women with varicose veins or tuberculosis.
- Eligibility requirements that needlessly limit the use of certain methods based on a woman's age, parity, or lack of spousal consent.
- Demands for additional procedures that may benefit women's overall health but are unnecessary for safe and effective contraceptive use, for example, requiring women to undergo a pelvic examination before receiving oral contraceptives.
- Creating hurdles for women by making extra visits mandatory.
- Requiring certain provider qualifications to deliver a method, for example, restricting IUCD insertions to physicians when nurses can be trained to perform the task.
- Provider biases for or against specific methods.
- Regulatory mechanisms that prevent certain contraceptive methods from being approved or that hinder their advertising.

Global investigations into medical barriers in the early 1990s found that there was a lack of consensus on medical eligibility requirements as well as delays in acting on new research findings. As a result, practices varied widely among individual providers. To help overcome these problems and eliminate medical barriers, international experts have codified medical eligibility requirements for contraception. In addition, they have developed checklists to rule out pregnancy among FP clients. Some critics worry, however, that the drive to eliminate medical barriers is decreasing the quality of care by removing safeguards to contraceptive use and by eliminating procedures with broad health benefits, such as pelvic exams. Even with changes in official guidelines, unnecessary medical barriers have persisted in many countries because they are rooted in providers' personal beliefs and cultural values.²

What Are Unjustified Medical Barriers?

- Practices derived (at least partly) from a medical rationale.
- Non-evidence-based barriers that result in denial of contraception.
- Eligibility restrictions, based on providers' limitations/personal biases.

Examples of Unjustified Medical Barriers

- Unnecessary barriers to initiation: menstruation

² Miller K et al. 1998. *Clinic-Based Family Planning and Reproductive Health Services in Africa: Findings from Situation Analysis Studies*. Population Council: New York; Speizer IS et al. 2000. Do service providers in Tanzania unnecessarily restrict clients' access to contraceptive methods? *International Family Planning Perspectives* 26(1): 13–20, 42; Stanback J and Twum-Baah KA. 2001. Why do family planning providers restrict access to services? An examination in Ghana. *International Family Planning Perspectives* 27: 37–41.

- Other client eligibility criteria: age, parity, marital status
- Inappropriate follow-up schedule: IUCD follow-up every 6 months
- Rest periods required: every 2–3 years for pills
- Unnecessary procedures required: pelvic exam, pregnancy test
- Provider bias: DMPA better for thin women

Addressing Medical Barriers: World Health Organization Medical Eligibility Criteria

What Are the Medical Eligibility Criteria?

- Recommendations on the specific conditions (medical and non-medical) to safely use contraceptive methods for:
 - Initiation; and
 - Continuation.
- These recommendations are based on evidence that depends on:
 - Direct studies on users with and without the conditions;
 - Theoretical considerations; and
 - Expert opinions.

Identification of Conditions

- Conditions represent either:
 - An individual's characteristics (e.g., age, parity, etc.);
 - Known pre-existing medical conditions (e.g., hypertension, etc.); and
 - Use of medications (e.g., rifampicin).

Table 5-4 on the following pages summarizes the World Health Organization (WHO) Medical Eligibility Criteria for starting contraceptive methods.

Table 5-1. World Health Organization Categories for Temporary Methods³

WHO Category	Eligibility Criteria
1	Can use the method. No restriction on use. All trained service providers can give.
2	Can use the method. Advantages generally outweigh theoretical or proven risks. Category 2 conditions could be considered in choosing a method. If the client chooses the method, more than usual follow-up may be needed.
3	Use of method not usually recommended unless other more appropriate methods are not available or not acceptable. Should only use the method if according to clinical judgement the risk of pregnancy is greater than the use of contraceptive. Careful follow-up will be needed.
4	Should not use the method. Condition represents an unacceptable health risk if the method is used.

Simplified Two-Category System

In case of limited clinical judgement, the WHO four-category classification system can be simplified into a two-category system as shown in this table:

Table 5-2. Simplified Medical Eligibility Criteria Classification Categories³

Category	With Clinical Judgement	With Limited Clinical Judgement
1	Use method in any circumstances.	YES (Use Method)
2	Generally use method.	
3	Use of method not usually recommended unless other more appropriate methods are not available or not acceptable.	NO (Do Not Use Method)
4	Method not to be used.	

Table 5-3. World Health Organization Categories for Female Sterilization and Vasectomy³

Category	Rationale
Accept (A)	No medical reason prevents performing the procedure in a routine setting.
Caution (C)	The procedure can be performed in a routine setting but with extra preparation and precautions.
Delay (D)	Delay the procedure. Condition must be treated and resolved before the procedure can be performed. Provide temporary methods.
Special (S)	Refer client to a centre where an experienced surgeon and staff can perform the procedure. Setting should be equipped for general anaesthesia and other medical support. Provide temporary methods.

Note: In the table that follows, category 3 and 4 conditions are shaded to indicate that the method should not be provided where clinical judgement is limited.

³ Adapted from: World Health Organization Department of Reproductive Health and Research (WHO/RHR) and Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs (CCP), INFO Project. 2007. *Family Planning: A Global Handbook for Providers*. CCP and WHO: Baltimore and Geneva; WHO/RHR and CCP, INFO Project. 2008. *Appendix D. Medical Eligibility Criteria*. (Appendix from *Family Planning: A Global Handbook for Providers*.) At: <http://info.k4health.org/globalhandbook/remindersheets/Word-AppendixD.doc>.

Table 5-4. Medical Eligibility Criteria for Contraceptive Use³

Condition	Combined oral contraceptives	Monthly injectables	Combined patch and combined vaginal ring	Progestin-only pills	Progestin-only injectables	Implants	Emergency contraceptive pills*	Copper-bearing intrauterine device	Levonorgestrel intrauterine device	Female sterilization*
	NA	NA	NA	NA	NA	NA	NA	4	4	D
Personal Characteristics and Reproductive History										
Pregnant	NA	NA	NA	NA	NA	NA	NA	4	4	D
Age	Menarche to < 40 years			Menarche to < 18 years				Menarche to < 20 years		Young age
	1	1	1	1	2	1	–	2	2	C
	≥ 40 years			18 to 45 years				≥ 20 years		
	2	2	2	1	1	1	–	1	1	
				> 45						
				1	2	1	–			
Parity										
Nulliparous (has not given birth)	1	1	1	1	1	1	–	2	2	A
Parous (has given birth)	1	1	1	1	1	1	–	1	1	A
Breastfeeding										
< 6 weeks postpartum	4	4	4	3 ^a	3 ^a	3 ^a	1	b	b	*
≥ 6 weeks to < 6 months postpartum (primarily breastfeeding)	3	3	3	1	1	1	1	b	b	A
≥ 6 months postpartum	2	2	2	1	1	1	1	b	b	A
Postpartum (not breastfeeding)										
< 21 days	3	3	3	1	1	1	–	b	b	*
≥ 21 days	1	1	1	1	1	1	–	b	b	
Postabortion										
First trimester	1	1	1	1	1	1	–	1	1	*
Second trimester	1	1	1	1	1	1	–	2	2	
Immediate post-septic abortion	1	1	1	1	1	1	–	4	4	
Past ectopic pregnancy	1	1	1	2	1	1	1	1	1	A
History of pelvic surgery	1	1	1	1	1	1	–	1	1	C*
Smoking										
Age < 35 years	2	2	2	1	1	1	–	1	1	A
Age ≥ 35 years										
<15 cigarettes/day	3	2	3	1	1	1	–	1	1	A
≥15 cigarettes/day	4	3	4	1	1	1	–	1	1	A
Obesity										
>30 kg/m ² body mass index	2	2	2	1	1**	1	–	1	1	C
Blood pressure measurement unavailable										
	NA ^c	NA ^c	NA ^c	NA ^c	NA ^c	NA ^c	–	NA	NA	NA

* See additional conditions relating to emergency contraceptive pills and female sterilization.

** From menarche to age <18 years, ≥30 kg/m² body mass index is category 2 for DMPA, category 1 for NET-EN.

^a In settings where pregnancy morbidity and mortality risks are high and this method is one of few widely available contraceptives, it may be made accessible to breastfeeding women immediately postpartum.

^b Postpartum IUCD use: For the copper-bearing IUCD, insertion at <48 hours is category 1. For the LNG-IUCD, insertion at <48 hours is category 3 for breastfeeding women and category 1 for women not breastfeeding. For all women and both IUCD types, insertion from 48 hours to <4 weeks is category 3; ≥4 weeks, category 1; and puerperal sepsis, category 4.

^c In settings where pregnancy morbidity and mortality risks are high and this method is one of few widely available contraceptives, women should not be denied access simply because their blood pressure cannot be measured.

= Use the method

 = Do not use the method

I = Initiation of the method

C = Continuation of the method

— = Use the method

NA = Not applicable

Condition	Combined Oral Contraceptives	Monthly Injectables	Combined patch and combined vaginal ring	Progestin-only pills	Progestin-only injectables	Implants	Emergency contraceptive pills*	Copper-bearing intrauterine device	Levonorgestrel intrauterine device	Female sterilization*
Cardiovascular Disease										
Multiple risk factors for arterial cardiovascular disease (older age, smoking, diabetes, and hypertension)	3/4 ^d	3/4 ^d	3/4 ^d	2	3	2	—	1	2	S
Hypertension^e										
History of hypertension, where blood pressure CANNOT be evaluated (including hypertension in pregnancy)	3	3	3	2 ^c	2 ^c	2 ^c	—	1	2	NA
Adequately controlled hypertension, where blood pressure CAN be evaluated	3	3	3	1	2	1	—	1	1	C
Elevated blood pressure (properly measured)										
Systolic 140-159 or diastolic 90-99	3	3	3	1	2	1	—	1	1	C ^f
Systolic ≥ 160 or diastolic ≥ 100 ^g	4	4	4	2	3	2	—	1	2	S ^f
Vascular disease	4	4	4	2	3	2	—	1	2	S
History of high blood pressure during pregnancy (where current blood pressure is measurable and normal)	2	2	2	1	1	1	—	1	1	A
Deep venous thrombosis (DVT)/ Pulmonary embolism (PE)										
History of DVT/PE	4	4	4	2	2	2	*	1	2	A
Acute DVT/PE	4	4	4	3	3	3	*	1	3	D
Family history of DVT/PE (first-degree relatives)	2	2	2	1	1	1	*	1	1	A
DVT/PE and on anticoagulant therapy	4	4	4	2	2	2	*	1	2	S
Major surgery										
With prolonged immobilization	4	4	4	2	2	2	—	1	2	D
Without prolonged immobilization	2	2	2	1	1	1	—	1	1	A
Minor surgery without prolonged immobilization	1	1	1	1	1	1	—	1	1	A

^d When multiple major risk factors exist, any of which alone would substantially increase the risk of cardiovascular disease, use of the method may increase her risk to an unacceptable level. However, a simple addition of categories for multiple risk factors is not intended. For example, a combination of factors assigned a category 2 may not necessarily warrant a higher category.

^e Assuming no other risk factors for cardiovascular disease exist. A single reading of blood pressure is not sufficient to classify a woman as hypertensive.

^f Elevated blood pressure should be controlled before the procedure and monitored during the procedure.

^g This condition may make pregnancy an unacceptable health risk. Women should be advised that because of relatively higher pregnancy rates, as commonly used, spermicides, withdrawal, fertility awareness methods, cervical caps, diaphragms, or female or male condoms may not be the most appropriate choice.

- = Use the method
- = Do not use the method
- I = Initiation of the method
- C = Continuation of the method
- = Use the method
- NA = Not applicable

Condition	Combined Oral Contraceptives	Monthly Injectables	Combined patch and combined vaginal ring	Progestin-only pills	Progestin-only injectables	Implants	Emergency contraceptive pills*	Copper-bearing intrauterine device	Levonorgestrel intrauterine device	Female sterilization*
Known thrombogenic mutations (e.g., Factor V Leiden, Prothrombin mutation; Protein S, Protein C, and Antithrombin deficiencies) ^g	4	4	4	2	2	2	*	1	2	A
Superficial venous thrombosis										
Varicose veins	1	1	1	1	1	1	–	1	1	A
Superficial thrombophlebitis	2	2	2	1	1	1	–	1	1	A
Ischemic heart disease^g				I C		I C			I C	
Current	4	4	4	2 3	3	2 3	*	1	2 3	D
History of										C
Stroke (history of cerebrovascular accident) ^g	4	4	4	2 3	3	2 3	*	1	2	C
Known hyperlipidemias	2/3 ^h	2/3 ^h	2/3 ^h	2	2	2	–	1	2	A
Valvular heart disease										
Uncomplicated	2	2	2	1	1	1	–	1	1	C ⁱ
Complicated ^{g†}	4	4	4	1	1	1	–	2 ⁱ	2 ⁱ	S ⁱ
Systemic lupus erythematosus					I C			I C		
Positive (or unknown) antiphospholipid antibodies	4	4	4	3	3 3	3	–	1 1	3	S
Severe thrombocytopenia	2	2	2	2	3 2	2	–	3 2	2	S
Immunosuppressive treatment	2	2	2	2	2 2	2	2	2 1	2	S
None of the above	2	2	2	2	2 2	2	–	1 1	2	C
Neurological Conditions										
Headaches^j	I C	I C	I C	I C	I C	I C			I C	
Non-migrainous (mild or severe)	1 2	1 2	1 2	1 2	1 2	1 2	–	1	1 2	A
Migraine										
Without aura	I C	I C	I C	I C	I C	I C	–	1	I C	
Age < 35	2 3	2 3	2 3	1 2	2 2	2 2	–	1	2 2	A
Age ≥ 35	3 4	3 4	3 4	1 2	2 2	2 2	–	1	2 2	A
With aura, at any age	4 4	4 4	4 4	2 3	2 3	2 3			2 3	
Epilepsy	1 ^k	1 ^k	1 ^k	1 ^k	1 ^k	1 ^k	–	1	1	C

^h Assess according to the type and severity of hyperlipidemia and the presence of other cardiovascular risk factors.
ⁱ Prophylactic antibiotics are advised before providing the method.
^j Category is for women without any other risk factors for stroke.
^k If taking anticonvulsants, refer to section on drug interactions.
[†] Pulmonary hypertension, atrial fibrillation, history of subacute bacterial endocarditis

= Use the method

 = Do not use the method

I = Initiation of the method

C = Continuation of the method

– = Use the method

NA = Not applicable

Condition	Combined Oral Contraceptives	Monthly Injectables	Combined patch and combined vaginal ring	Progestin-only pills	Progestin-only injectables	Implants	Emergency contraceptive pills*	Copper-bearing intrauterine device	Levonorgestrel intrauterine device	Female sterilization*
Depressive Disorders										
Depressive disorders	1 ^l	1 ^l	1 ^l	1 ^l	1 ^l	1 ^l	–	1	1 ^l	C
Reproductive Tract Infections and Disorders										
Vaginal bleeding patterns										
Irregular pattern without heavy bleeding	1	1	1	2	2	2	–	1	1	A
Heavy or prolonged bleeding (including regular and irregular patterns)	1	1	1	2	2	2	–	2	1	A
Unexplained vaginal bleeding (suspicious for serious condition), before evaluation	2	2	2	2	3	3	–	I C 4 2	I C 4 2	D
Endometriosis	1	1	1	1	1	1	–	2	1	S
Benign ovarian tumours (including cysts)	1	1	1	1	1	1	–	1	1	A
Severe dysmenorrhoea	1	1	1	1	1	1	–	2	1	A
Trophoblast disease										
β-hCG regression	1	1	1	1	1	1	–	3	3	A
β-hCG elevation [§]	1	1	1	1	1	1	–	4	4	D
Cervical ectropion	1	1	1	1	1	1	–	1	1	A
Cervical intraepithelial neoplasia (CIN)	2	2	2	1	2	2	–	1	2	A
Cervical cancer (awaiting treatment)	2	2	2	1	2	2	–	I C 4 2	I C 4 2	D
Breast disease										
Undiagnosed mass	2	2	2	2	2	2	–	1	2	A
Benign breast disease	1	1	1	1	1	1	–	1	1	A
Family history of cancer	1	1	1	1	1	1	–	1	1	A
Breast cancer										
Current [§]	4	4	4	4	4	4	–	1	4	C
Past, no evidence of disease for at least 5 years	3	3	3	3	3	3	–	1	3	A
Endometrial cancer [§]	1	1	1	1	1	1	–	I C 4 2	I C 4 2	D
Ovarian cancer [§]	1	1	1	1	1	1	–	3 2	3 2	D
Uterine fibroids										
Without distortion of the uterine cavity	1	1	1	1	1	1	–	1	1	C
With distortion of the uterine cavity	1	1	1	1	1	1	–	4	4	C
Anatomical abnormalities										
Distorted uterine cavity	–	–	–	–	–	–	–	4	4	–
Other abnormalities not distorting the uterine cavity or interfering with IUCD insertion (including cervical stenosis or lacerations)	–	–	–	–	–	–	–	2	2	–

^l Certain medications may interact with the method, making it less effective.

- = Use the method
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- = Use the method
- NA = Not applicable

Condition	Combined Oral Contraceptives	Monthly Injectables	Combined patch and combined vaginal ring	Progestin-only pills	Progestin-only injectables	Implants	Emergency contraceptive pills*	Copper-bearing intrauterine device	Levonorgestrel intrauterine device	Female sterilization*		
Pelvic inflammatory disease (PID)												
Past PID (assuming no current risk factors for STIs)								I	C	I	C	
With subsequent pregnancy	1	1	1	1	1	1	–	1	1	1	A	
Without subsequent pregnancy	1	1	1	1	1	1	–	2	2	2	C	
Current PID	1	1	1	1	1	1	–	4	2 ^m	4	2 ^m	D
Sexually transmitted infections (STIs)[§]								I	C	I	C	
Current purulent cervicitis, chlamydia, or gonorrhoea	1	1	1	1	1	1	–	4	2	4	2	D
Other STIs (excluding HIV and hepatitis)	1	1	1	1	1	1	–	2	2	2	2	A
Vaginitis (including trichomonas vaginalis and bacterial vaginosis)	1	1	1	1	1	1	–	2	2	2	2	A
Increased risk of STIs	1	1	1	1	1	1	–	2/ 3 ⁿ	2	2/ 3 ⁿ	2	A
HIV/AIDS[§]												
								I	C	I	C	
High risk of HIV	1	1	1	1	1	1	–	2	2	2	2	A
HIV-infected	1	1	1	1	1	1	–	2	2	2	2	A
AIDS	1	1	1	1	1	1	–	3	2	3	2	S ^o
Treated with NRTIs	1	1	1	1	1	1	–	2/ 3 ^p	2	2/ 3 ^p	2	–
Treated with NNRTIs	2	2	2	2	DMPA 1 NET-EN 2	2	–	2/ 3 ^p	2	2/ 3 ^p	2	–
Treated with ritonavir-boosted protease inhibitors	3	3	3	3	DMPA 1 NET-EN 2	2	–	2/ 3 ^p	2	2/ 3 ^p	2	–

Note: NRTIs = nucleoside reverse transcriptase inhibitors; NNRTIs = non-nucleoside reverse transcriptase inhibitors

^m Treat PID using appropriate antibiotics. There is usually no need to remove the IUCD if the client wishes to continue use.

ⁿ The condition is category 3 if a woman has a very high individual likelihood of exposure to gonorrhoea or chlamydia.

^o Presence of an AIDS-related illness may require a delay in the procedure.

^p AIDS is category 2 for insertion for those clinically well on antiretroviral therapy; otherwise, category 3 for insertion.

= Use the method

 = Do not use the method

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C = Continuation of the method

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NA = Not applicable

Condition	Combined Oral Contraceptives	Monthly Injectables	Combined patch and combined vaginal ring	Progestin-only pills	Progestin-only injectables	Implants	Emergency contraceptive pills*	Copper-bearing intrauterine device	Levonorgestrel intrauterine device	Female sterilization*	
Other Infections											
Schistosomiasis											
Uncomplicated	1	1	1	1	1	1	–	1	1	A	
Fibrosis of liver (if severe, see cirrhosis, next page) [§]	1	1	1	1	1	1	–	1	1	C	
Tuberculosis[§]											
Non-pelvic	1	1	1	1	1	1	–	I	C	I	C
Known pelvic	1	1	1	1	1	1	–	4	3	4	3
Malaria	1	1	1	1	1	1	–	1	1	A	
Endocrine Conditions											
Diabetes											
History of gestational diabetes	1	1	1	1	1	1	–	1	1	A ^q	
Non-vascular diabetes											
Non-insulin dependent	2	2	2	2	2	2	–	1	2	C ^{i,q}	
Insulin dependent [§]	2	2	2	2	2	2	–	1	2	C ^{i,q}	
With kidney, eye, or nerve damage [§]	3/4 ^r	3/4 ^r	3/4 ^r	2	3	2	–	1	2	S	
Other vascular disease or diabetes of >20 years' duration [§]	3/4 ^r	3/4 ^r	3/4 ^r	2	3	2	–	1	2	S	
Thyroid disorders											
Simple goitre	1	1	1	1	1	1	–	1	1	A	
Hyperthyroid	1	1	1	1	1	1	–	1	1	S	
Hypothyroid	1	1	1	1	1	1	–	1	1	C	
Gastrointestinal Conditions											
Gall bladder disease											
Symptomatic											
Treated by cholecystectomy	2	2	2	2	2	2	–	1	2	A	
Medically treated	3	2	3	2	2	2	–	1	2	A	
Current	3	2	3	2	2	2	–	1	2	D	
Asymptomatic	2	2	2	2	2	2	–	1	2	A	
History of cholestasis											
Pregnancy-related	2	2	2	1	1	1	–	1	2	A	
Past combined oral contraceptives-related	3	2	3	2	2	2	–	1	2	A	
Viral hepatitis											
Acute or flare											
	3/4 ^r	2	3	2	3/4 ^r	2	1	1	1	1	2
Carrier	1	1	1	1	1	1	–	1	1	A	
Chronic	1	1	1	1	1	1	–	1	1	A	

^q If blood glucose is not well controlled, referral to a higher-level facility is recommended.

^r Assess according to severity of condition.

^s In women with symptomatic viral hepatitis, withhold these methods until liver function returns to normal or 3 months after she becomes asymptomatic, whichever is earlier.

- = Use the method
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- = Use the method
- NA = Not applicable

Condition	Combined Oral Contraceptives	Monthly Injectables	Combined patch and combined vaginal ring	Progestin-only pills	Progestin-only injectables	Implants	Emergency contraceptive pills*	Copper-bearing intrauterine device	Levonorgestrel intrauterine device	Female sterilization*
Cirrhosis										
Mild (compensated)	1	1	1	1	1	1	–	1	1	A
Severe (decompensated) ^g	4	3	4	3	3	3	–	1	3	S
Liver tumours										
Focal nodular hyperplasia	2	2	2	2	2	2	–	1	2	A
Hepatocellular adenoma	4	3	4	3	3	3	–		3	C ^t
Malignant (hepatoma) ^g	4	3/4	4	3	3	3	–	1	3	C ^t
Anaemias										
Thalassaemia	1	1	1	1	1	1	–	2	1	C
Sickle cell disease ^g	2	2	2	1	1	1	–	2	1	C
Iron-deficiency anaemia	1	1	1	1	1	1	–	2	1	D/C ^u
Drug Interactions (for antiretroviral drugs, see HIV/AIDS)										
Anticonvulsant therapy										
Certain anticonvulsants	3 ^l	2	3 ^l	3 ^l	DMPA 1 NET-EN 2	2 ^l	–	1	1	–
Lamotrigine	3 ^{tt}	3 ^{tt}	3 ^{tt}	1	1	1	–	1	1	–
Antimicrobial therapy										
Other antibiotics	1	1	1	1	1	1	–	1	1	–
Antifungals and antiparasitics	1	1	1	1	1	1	–	1	1	–
Rifampicin therapy	3 ^l	2	3 ^l	3 ^l	DMPA 1 NET-EN 2	2	–	1	1	–

^t Liver function should be evaluated.
^u For haemoglobin < 7 g/dl, delay. For hemoglobin ≥ 7 to < 10 g/dl, caution.
^{tt} Combined hormonal contraceptives may reduce the effectiveness of lamotrigine.

Additional Conditions Relating to Emergency Contraceptive Pills

- Category 1: Repeated use; rape.
- Category 2: History of severe cardiovascular complications (ischemic heart disease, cerebrovascular attack, or other thromboembolic conditions).

Additional Conditions Relating to Female Sterilization

Caution: Diaphragmatic hernia; kidney disease; severe nutritional deficiencies; previous abdominal or pelvic surgery; concurrent with elective surgery.

Delay: Abdominal skin infection; acute respiratory disease (bronchitis, pneumonia); systemic infection or gastroenteritis; emergency surgery (without previous counselling); surgery for an infectious condition; certain postpartum conditions (7–41 days after childbirth); severe pre-eclampsia/eclampsia; prolonged rupture of membranes (24 hours or more); fever during or immediately after delivery; sepsis after delivery; severe haemorrhage; severe trauma to the genital tract; cervical or vaginal tear (at time of delivery);

certain postabortion conditions (sepsis, fever, or severe haemorrhage; severe trauma to the genital tract; cervical or vaginal tear at time of abortion; acute haematometra); sub-acute bacterial endocarditis; unmanaged atrial fibrillation.

Special arrangements: Coagulation disorders; chronic asthma, bronchitis, emphysema, or lung infection; fixed uterus due to previous surgery or infection; abdominal wall or umbilical hernia; postpartum uterine rupture or perforation; postabortion uterine perforation.

Conditions Relating to Vasectomy

No special considerations: High risk of HIV, HIV-infected, sickle cell disease.

Caution: Young age; depressive disorders; diabetes; previous scrotal injury; hydrocele; cryptorchidism (may require referral).

Delay: Active STIs (excluding HIV and hepatitis); scrotal skin infection; balanitis; epididymitis or orchitis; systemic infection or gastroenteritis; filariasis; elephantiasis; intrascrotal mass.

Special arrangements: AIDS (AIDS-related illness may require delay); coagulation disorders; inguinal hernia.

Conditions Relating to Male and Female Condoms, Spermicides, Diaphragms, Cervical Caps, and the Lactational Amenorrhoea Method

All other conditions listed on the previous pages that do not appear here are a category 1 or NA for male and female condoms, spermicides, diaphragms, and cervical caps and not listed in the Medical Eligibility Criteria for the lactational amenorrhoea method.

Table 5-5. Eligibility Criteria for Use of Barrier Methods, Spermicides, and the Lactational Amenorrhoea Method³

Condition	Male and female condoms	Spermicides	Diaphragms	Cervical CPS	Lactational amenorrhoea method ³
Reproductive History					
Parity					
Nulliparous (has not given birth)	1	1	1	1	–
Parous (has given birth)	1	1	2	2	–
< 6 weeks postpartum	1	1	NA ^v	NA ^v	–
Cardiovascular Disease					
Complicated valvular heart disease (pulmonary hypertension, risk of atrial fibrillation, history of subacute bacterial endocarditis) [§]	1	1	2	2	–
Reproductive Tract Infections And Disorders					
Cervical intraepithelial neoplasia	1	1	1	4	–
Cervical cancer	1	2	1	4	–
Anatomical abnormalities	1	1	NA ^w	NA ^x	–
HIV/AIDS[§]					
High risk of HIV	1	4	4	4	–
HIV-infected	1	3	3	3	C ^y
AIDS	1	3	3	3	C ^y
Others					
History of toxic shock syndrome	1	1	3	3	–
Urinary tract infection	1	1	2	2	–
Allergy to latex ^z	3	1	3	3	–

^v Wait to fit/use until uterine involution is complete.
^w Diaphragm cannot be used in certain cases of uterine prolapse.
^x Cap use is not appropriate for a client with severely distorted cervical anatomy.
^y Women with HIV or AIDS should avoid breastfeeding if replacement feeding is affordable, feasible, acceptable, sustainable, and safe. Otherwise, exclusive breastfeeding is recommended during the first 6 months of a baby's life and should then be discontinued over a period of 2 days to 3 weeks.
^z Does not apply to plastic condoms, diaphragms, and cervical caps.

Additional Conditions Relating to Lactational Amenorrhoea Method

Medication used during breastfeeding: To protect infant health, breastfeeding is not recommended for women using such drugs as anti-metabolites, bromocriptine, certain anticoagulants, corticosteroids (high doses), cyclosporine, ergotamine, lithium, mood altering drugs, radioactive drugs, and reserpine.

Conditions affecting the newborn that may make breastfeeding difficult: Congenital deformities of the mouth, jaw, or palate; newborns who are small-for-date or premature and needing intensive neonatal care; and certain metabolic disorders.

Table 5-6. Eligibility Criteria for Use of Symptoms- and Calendar-Based Methods³

Condition	Symptoms- and Calendar-Based Methods ³	
	Symptoms-based methods	Calendar-based methods
Age: post menarche or perimenopause	C	C
Breastfeeding < 6 weeks postpartum	D	D ^{aa}
Breastfeeding ≥ 6 weeks postpartum	C	D ^{bb}
Postpartum, not breastfeeding	D ^{cc}	D ^{aa}
Postabortion	C	D ^{dd}
Irregular vaginal bleeding	D	D
Vaginal discharge	D	A
Taking drugs that affect cycle regularity, hormones, and/or fertility signs	D/C ^{ee}	D/C ^{ee}
Diseases that elevate body temperature		
Acute	D	A
Chronic	C	A

^{aa} Delay until she has had 3 regular menstrual cycles.

^{bb} Use caution after monthly bleeding or normal secretions return (usually at least 6 weeks after childbirth).

^{cc} Delay until monthly bleeding or normal secretions return (usually < 4 weeks postpartum).

^{dd} Delay until she has had one regular menstrual cycle.

^{ee} Delay until the drug's effect has been determined, then use caution.

6

NATURAL METHODS

Introduction

Natural Family Planning (NFP) refers to a variety of methods used to plan or prevent pregnancy, based on identifying the woman's fertile days. For all natural methods, avoiding unprotected intercourse during the fertile days is what prevents pregnancy. Natural methods are also known as fertility awareness-based methods.

There are 6 days during the menstrual cycle when it is possible for a woman to become pregnant. This is because of the life span of the sperm, which remain viable in the woman's reproductive tract for up to 5 days, and the fact that the ovum can be fertilized for up to 24 hours following ovulation. This fertility period will move backwards or forwards, depending on when ovulation actually occurs.

The effectiveness and significant advantages of NFP address the needs of diverse populations with varied religious and ethical beliefs. They also provide an alternative for women who want to use natural methods for medical or personal reasons.

The most common natural methods used are:

- Lactational amenorrhoea method (LAM or breastfeeding)
- Fertility awareness-based methods:
 - Calendar methods:
 - Calendar-based method
 - Standard Days Method® (SDM)
 - Symptoms-based methods:
 - Ovulation method/cervical mucus method
 - TwoDay Method®
 - Basal body temperature (BBT) method
 - Symptothermal method/multiple indicator method
 - Withdrawal method

Policy/Standard

- Natural methods should be offered to all potential clients as a choice during counselling.
- All service providers should be well-trained in counselling and techniques of natural methods.

Lactational Amenorrhoea Method (LAM) Family Planning Method Based on Breastfeeding

In developing nations, including Pakistan, breastfeeding plays a major role in prolonging birth intervals and thereby reducing the fertility rate. LAM is a temporary family planning (FP) method based on the natural effect of breastfeeding on fertility. (“Lactational” means related to breastfeeding. “Amenorrhoea” means not having monthly bleeding.)

LAM requires three conditions. All three of the following conditions must be met:

- The mother’s monthly bleeding has not returned;
- The baby is fully or nearly fully breastfed and is fed often, day and night; and
- The baby is less than 6 months old.

“Fully breastfeeding” includes both exclusive breastfeeding (the infant receives no other liquid or food, not even water, in addition to breast milk) and almost-exclusive breastfeeding (the infant receives vitamins, water, juice, or other nutrients once in a while in addition to breast milk).

“Nearly fully breastfeeding” means that the infant receives some liquid or food in addition to breast milk, but the majority of feedings (more than three-fourths of all feeds) are breast milk.

Mode of Action

LAM works primarily by preventing the release of eggs from the ovaries (ovulation). Frequent breastfeeding temporarily prevents the release of the natural hormones that cause ovulation.

Effectiveness

Effectiveness depends on the user: Risk of pregnancy is greatest when a woman cannot fully or nearly fully breastfeed her infant.

- When used correctly, there is less than 1 pregnancy per 100 women using LAM in the first 6 months after childbirth.
- As commonly used, there are about 2 pregnancies per 100 women using LAM in the first 6 months after childbirth. This means that 98 of every 100 women relying on LAM will not become pregnant.

Return of fertility after LAM is stopped: Depends on how much the woman continues to breastfeed.

Protection against sexually transmitted infections (STIs): None.

Advantages

- Effectively prevents pregnancy for at least 6 months.
- Can be used immediately after childbirth.
- No need to do anything at time of sexual intercourse.
- No direct cost for FP or for feeding the baby.
- No supplies or procedures needed to prevent pregnancy.
- No hormonal side effects.
- A breastfeeding woman can use LAM to space her next birth and as a transition to another contraceptive method.
- Breastfeeding practices required by LAM have other health benefits for baby and mother, including:
 - Provides the healthiest food for the baby.
 - Helps protect the baby from life-threatening diseases such as diarrhoea, measles, and pneumonia by passing the mother's immunities to the baby.
 - Helps develop a close relationship between mother and baby.
 - Helps early involution of uterus.
 - Prevents breast engorgement.

Limitations

- Effectiveness after 6 months is not certain.
- Frequent breastfeeding may be inconvenient or difficult for some women, especially working mothers.
- No protection against STIs, including HIV/AIDS.

Lactational Amenorrhea Method for Women with HIV

- Women who are infected with HIV or who have AIDS can use LAM. Breastfeeding will not make their condition worse. There is a chance, however, that mothers with HIV will transmit HIV to their infants through breastfeeding. As breastfeeding is generally practiced, 10–20 of every 100 infants breastfed by mothers with HIV will become infected with HIV through breast milk, in addition to those already infected during pregnancy and delivery. HIV transmission through breast milk is more likely among mothers with advanced disease or who are newly infected.

- Women taking antiretroviral (ARV) medications can use LAM. In fact, ARV therapy during the first weeks of breastfeeding may reduce the risk of HIV transmission through breast milk.
- Replacement feeding poses no risk of HIV transmission. If—and only if—replacement feeding is acceptable, feasible, affordable, sustainable, and safe, it is recommended for the first 6 months after childbirth. If available replacement feeding cannot meet these five criteria, exclusive breastfeeding for the first 6 months is the safest way to feed the baby, and it is compatible with LAM.
- One strategy for making breastfeeding safer is expressing breast milk and heat-treating it. For women relying on LAM, expressing milk may be slightly less effective at preventing pregnancy than breastfeeding.
- Urge women with HIV to use condoms along with LAM. Used consistently and correctly, condoms help prevent transmission of HIV and other STIs.

Client Assessment as per World Health Organization Medical Eligibility Criteria

All breastfeeding women can safely use LAM, but a woman in the following circumstances may want to consider other contraceptive methods:

- Has HIV infection, including AIDS.
- Is using certain medications during breastfeeding (including mood-altering drugs, reserpine, ergotamine, anti-metabolites, cyclosporine, high doses of corticosteroids, bromocriptine, radioactive drugs, lithium, and certain anticoagulants).
- Her newborn has a condition that makes it difficult to breastfeed (including being small-for-date or premature and needing intensive neonatal care, being unable to digest food normally, or having deformities of the mouth, jaw, or palate).

LAM can also be used in any circumstances by women with the following characteristics or health conditions:

- Smoke cigarettes
- Iron deficiency anaemia
- Fat or thin
- Malaria
- Young or old
- Sickle cell disease
- Benign breast disease
- Gall bladder disease
- Thyroid disease

- Headaches
- Uterine fibroid
- High blood pressure
- Valvular heart disease
- Varicose veins
- Diabetes

The only conditions that limit use of LAM are conditions that make breastfeeding difficult or that rule out breastfeeding.

How to Use the Method

Starting Time

Start breastfeeding as soon as possible (within 1 hour) after the baby is born.



Source: Georgetown University, Institute for Reproductive Health, and Jhpiego. 2009. *Lactational Amenorrhea Method (LAM): A Learning Resource Package for Family Planning Service Providers and Trainers*. Georgetown University: Washington, D.C.

Technique

- An ideal pattern is feeding on demand (that is, whenever the baby wants to be fed) and at least 10–12 times in 24 hours in the first few weeks after childbirth and thereafter 8–10 times in 24 hours, including at least once at night in the first months.
- Daytime feedings should be no more than 4 hours apart, and nighttime feedings no more than 6 hours apart.
- Some babies may not want to breastfeed 8–10 times a day and may want to sleep through the night. These babies may need gentle encouragement to breastfeed more often.

The mother should start giving other foods in addition to breast milk when the baby is 6 months old. At this age, breast milk can no longer fully nourish a growing baby.

Time to Start Another FP Method: Start Another Method When:

- Menstrual periods return (bleeding in the first 56 days, or 8 weeks, after childbirth is not considered menstrual bleeding), or
- Baby is 6 months old (about the time the baby starts sitting up), or
- The woman stops fully or nearly fully breastfeeding, or
- The woman no longer wants to rely on LAM for FP.

Follow-Up Visit

Plan for the next visit while the LAM criteria still apply, so that the woman can choose another method and continue to be protected from pregnancy.

If possible, give her condoms or progestin-only pills. She can start to use them if the baby is no longer fully or nearly fully breastfeeding, if her monthly bleeding returns, or if the baby reaches 6 months of age before she can come back for another method. Emergency contraceptive pills (ECPs) are another option, particularly for unprotected sex. Plan for a follow-on method. Give her any supplies now.

Supporting the User

If the client reports any problems with using LAM:

- Do not dismiss the woman's concerns or take them lightly.
- Give help and advice about breastfeeding technique, and encourage continuing breastfeeding.
- If the woman is not satisfied with LAM after counselling and discussion, help her to choose another method.

Table 6-1. Lactational Amenorrhoea Method: Side Effects and Their Management

Side Effects	Management
Baby is not getting enough milk	<p>Reassure the woman that most women can produce enough breast milk to feed their babies.</p> <p>If the newborn is gaining more than 500 gm a month, weighs more than birth weight at 2 weeks, or urinates at least 6 times a day, reassure her that her baby is getting enough breast milk.</p> <p>Tell her to breastfeed her newborn about every 2 hours to increase milk supply.</p> <p>Recommend that she reduce any supplemental foods and/or liquids if the baby is less than 6 months of age.</p>

Side Effects	Management
Sore breasts	<p>If her breasts are full, tight, and painful, she may have engorged breasts. If one breast has tender lumps, she may have blocked ducts. Engorged breasts or blocked ducts may progress to red and tender, infected breasts. Treat infected breasts with antibiotics according to clinic guidelines. To aid healing, advise her to:</p> <ul style="list-style-type: none"> • Continue to breastfeed often. • Massage her breasts before and during breastfeeding. • Apply heat or a warm compress to breasts. • Try different breastfeeding positions. • Ensure that the infant attaches properly to the breast. • Express some milk before breastfeeding.
Sore or cracked nipples	<p>If her nipples are cracked, she can continue breastfeeding. Assure her that they will heal over time.</p> <p>To aid healing, advise her to:</p> <ul style="list-style-type: none"> • Apply drops of breast milk to the nipples after breastfeeding and allow them to air dry. • After feeding, use a finger to break suction first before removing the baby from the breast. • Do not wait until the breast is full to breastfeed. If full, express some milk first. <p>Teach the woman about proper attachment and how to check for signs that the baby is not attaching properly.</p> <p>Tell her to clean her nipples with water only, once a day, and to avoid soaps and alcohol-based solutions.</p> <p>Examine her nipples and the baby's mouth and buttocks for signs of fungal infection (thrush).</p>

Counselling for Breastfeeding

Explain the benefits of breastfeeding as the source of nutrition for the baby and a natural method of contraception. Ask the client if she is having any difficulty in breastfeeding and advise her as needed.

Encourage the woman to continue breastfeeding her baby for as long as possible. She will need another method when:

- Her menstrual periods return;
- The baby becomes 6 months old; or
- The baby is not taking breast milk as frequently as before (more than 6 hours between feedings), or the baby is taking food or liquid as substitutes for breast milk feeds.

After explaining the instructions, ask the client to repeat them.

Contraception for Non-Lactating Mothers

Most non-lactating women resume menses within 4–6 weeks of delivery. Ovulation generally occurs and the client can again become pregnant. Ovulation can return at any time, even before menstruation. However, this period is unpredictable, and an FP method should be used to ensure that pregnancy does not occur and the client can again become pregnant.

Suitable Methods of Contraception during Lactation

The most appropriate methods of contraception for lactating mothers are those that do not influence the quantity and quality of breast milk, are not excreted in breast milk in amounts that make it unsafe for the infant, are effective and safe for the mother, are easily available, and are convenient to use.

Counsel the client about the methods that can be used, and assist her in making a choice. Give the following information about contraceptives that can and cannot be used during the lactation period:

- Combined oral contraceptive pills are not suitable during the first 6 months of lactation.
- The IUCD (CuT or Multiload) can be inserted 4 weeks after delivery. In facilities where there are trained providers, the CuT IUCD can be inserted within 10 minutes after delivery of the placenta or during the first 48 hours after delivery of the baby.
- Mini-pills (progestin-only) can be started after 6 weeks postpartum.
- Norplant® implants can be used after 6 weeks postpartum.
- Progestin injectable contraceptives can be given after 6 weeks postpartum.
- Condoms can safely be used at any time.

Tubal ligation can be performed if the client does not want any more children. It can be performed within 1 week after delivery, or at any time 6 or more weeks after delivery as an interval procedure.

Fertility Awareness-Based Methods

Fertility awareness means that a woman learns how to detect when the fertile time of her menstrual cycle begins and ends (ovulation days).

Women can use several ways to calculate the fertile time:

- Calendar-based methods (SDM, calendar rhythm method)
- Symptoms-based methods (ovulation method/cervical mucus, TwoDay Method, BBT method, symptothermal method/multiple indicator method, cervical mucous observation)

Mode of Action

Fertility awareness helps a couple know when the woman can become pregnant. The couple avoids pregnancy by changing their sexual behaviour during fertile days. They can practice:

- Periodic abstinence—avoiding vaginal sex completely during the fertile time. This method is also called Natural Family Planning (NFP).

Effectiveness

Effective or very effective when used consistently and correctly; effectiveness ranges from 91–99 percent for various methods.

Only somewhat effective as commonly used: 25 pregnancies occur per 100 women in the first year of use (1 in every 4).

Advantages

- Once learned, can be used to avoid pregnancy or to become pregnant, according to the couple's wishes.
- No physical side effects.
- Very little or no cost.
- Can be used by most couples if they are committed to it.
- Effective if used correctly and consistently.
- Once learned, may require no further help from health care providers.
- Can be learned from trained volunteers. Contact with medical personnel is not necessary.
- Immediately reversible.
- Acceptable to some religious groups that reject or discourage use of other methods.
- No effect on breastfeeding or breast milk.
- No hormonal side effects.
- Involves men in FP.
- Educates couple about women's fertility cycles.

Limitations

- Effectiveness depends on correct usage.
- Takes the woman up to two or three cycles to learn how to identify fertile time accurately. For a calendar method, a menstrual record of at least 6 months is required.
- Abstinence during fertile days may be difficult for some couples.
- Will not work without continuing cooperation and commitment of the couple.

- Can become unreliable or hard to use in conditions like fever due to infection, or when menstrual cycle length is short or long.
- After childbirth, may be hard to identify the fertile time until the menstrual cycle becomes regular again.
- Calendar method may not be effective for women with irregular menstrual cycles.
- Most methods require women or couples to keep careful daily records and pay close attention to body changes.
- Does not protect against STIs including HIV/AIDS.
- If client has or might get an STI, convince her to use condoms regularly. Give her condoms.

Method of Use

Starting Time

Once trained, a woman or couple can begin using fertility awareness-based techniques at any time. Before starting the fertility awareness-based methods, a woman must record the length of her menstrual cycles for at least 6 months.

Immediately after childbirth or abortion: Once bleeding stops after delivery, cervical secretions can be used for birth spacing, but with difficulty. The calendar method and BBT method are unreliable at this stage.

Fertility awareness-based methods can be used in any circumstances by women with any of the following characteristics or health conditions:

- Smoke cigarettes
- High blood pressure
- Deep vein thrombosis or pulmonary embolism
- Varicose veins
- Mild or severe headaches
- Painful menstruation
- Uterine fibroids
- Endometriosis
- Ovarian cysts
- Iron deficiency anaemia
- Viral hepatitis
- Malaria

Calendar-Based Methods

All women can use calendar-based methods. No medical conditions prevent the use of these methods, but some conditions can make them more difficult to use effectively.

Caution means that additional or special counselling may be needed to ensure correct use of the method.

Delay means that use of a particular fertility awareness method should be delayed until the condition is evaluated or corrected. Give the client another method to use until she can start the calendar-based method.

In the following situations, use caution with calendar-based methods:

- Menstrual cycles have just started or have become less frequent or stopped due to older age. (Menstrual cycle irregularities are common in young women in the first several years after their first monthly bleeding and in older women who are approaching menopause. Identifying the fertile time may be difficult.)

In the following situations, delay starting calendar-based methods:

- Recently gave birth or is breastfeeding. (Delay until she has had at least three menstrual cycles and her cycles are regular again.)
- Recently had an abortion or miscarriage. (Delay until the start of her next monthly bleeding.)
- Irregular vaginal bleeding.

In the following situations, delay or use caution with calendar-based methods:

- Taking any mood-altering drugs such as anti-anxiety therapies (except benzodiazepines), antidepressants (selective serotonin reuptake inhibitors [SSRIs], tricyclic or tetracyclic), long-term use of certain antibiotics, or long-term use of any nonsteroidal anti-inflammatory drug (such as aspirin or ibuprofen). These drugs may affect timing of ovulation.

Providing Calendar-Based Methods

When to Start

Once trained, a woman or couple usually can begin using calendar-based methods at any time. Clients who cannot start immediately another method to use until they can start.

Table 6-2. When to Start Calendar-Based Methods

Woman's Situation	When to Start
Having regular menstrual cycles	Any time of the month No need to wait until the start of next monthly bleeding.
No monthly bleeding	Delay calendar-based methods until monthly bleeding returns.
After childbirth (whether or not breastfeeding)	Delay the Standard Days Method until she has had three menstrual cycles and the last one was 26-32 days long. Regular cycles will return later in breastfeeding women than in women who are not breastfeeding.
After miscarriage or abortion	Delay the Standard Days Method until the start of her next monthly bleeding, when she can start if she has no bleeding due to injury to the genital tract.
Switching from a hormonal method	Delay starting the Standard Days Method until the start of her next monthly bleeding. If she is switching from injectables, delay the Standard Days Method at least until her repeat injection would have been given, and then start it at the beginning of her next monthly bleeding.
After taking emergency contraceptive pills	Delay the Standard Days Method until the start of her next monthly bleeding.

Explaining How to Use Calendar-Based Methods

Standard Days Method

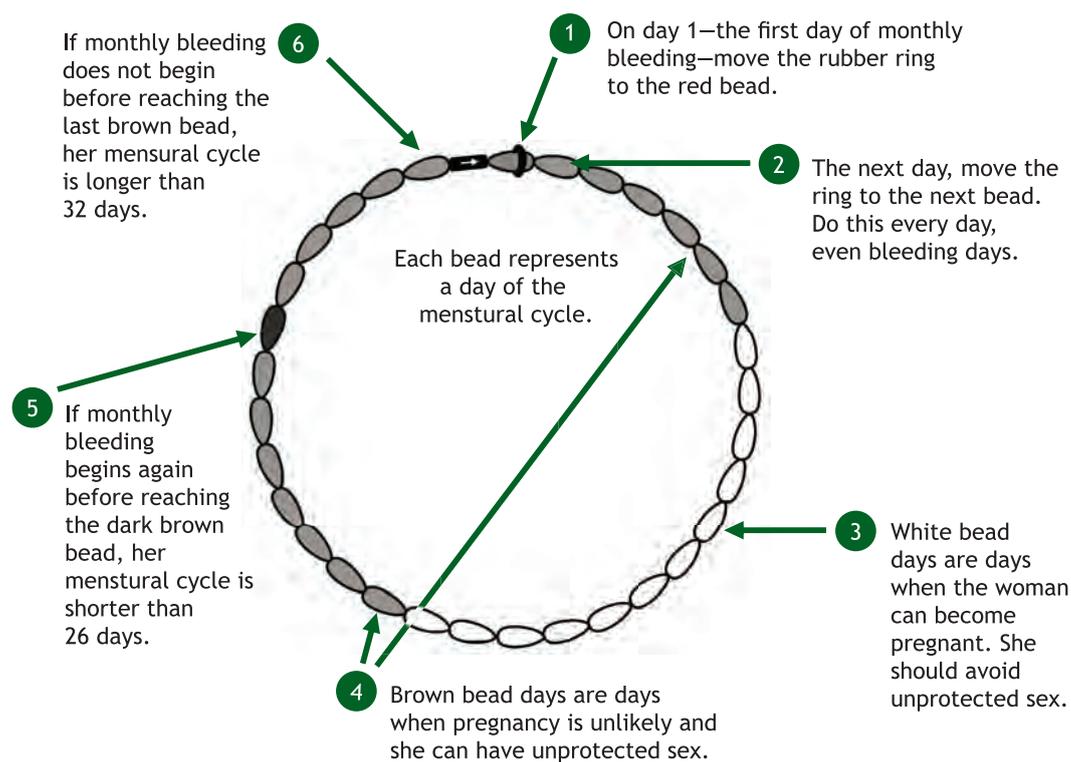
IMPORTANT: A woman can use the Standard Days Method if most of her menstrual cycles are 26–32 days long.

If she has more than two longer (>32 days) or shorter (<26 days) cycles within a year, the Standard Days Method will be less effective and she should choose another method.



Table 6-3. How to Use Calendar-Based Methods

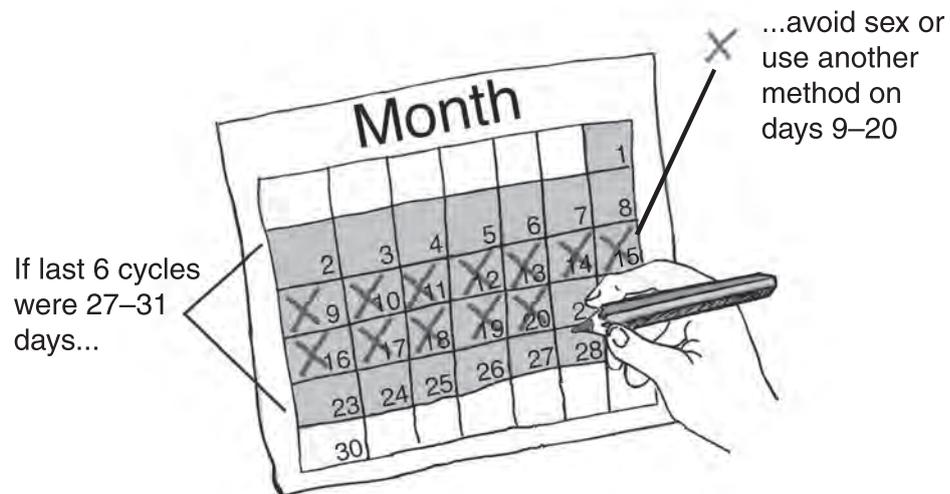
Basic Principles of the Method	How to Use the Method
Keep track of the days of the menstrual cycle	A woman keeps track of the days of her menstrual cycle, counting the first day of monthly bleeding as day 1.
Avoid unprotected sex from days 8-19	<p>Days 8-19 of every cycle are considered fertile days for all users of the Standard Days Method.</p> <p>The couple avoids vaginal sex or uses condoms or a diaphragm during days 8-19. They can also use withdrawal or spermicides, but these are less effective.</p> <p>The couple can have unprotected sex on all the other days of the cycle—days 1-7 at the beginning of the cycle and from day 20 until her next monthly bleeding begins.</p>
Use memory aids if needed	The couple can use CycleBeads, a colour-coded string of beads that indicates fertile and non-fertile days of a cycle, or they can mark a calendar or use some other memory aid.



Calendar Rhythm Method

Table 6-4. Using the Calendar Rhythm Method

Basic Principles of the Method	How to Use the Method
Keep track of the days of the menstrual cycle	Before relying on this method, a woman records the number of days in each menstrual cycle for at least 6 months. The first day of monthly bleeding is always counted as day 1.
Estimate the fertile time	The woman subtracts 18 from the length of her shortest recorded cycle. This tells her the estimated first day of her fertile time. Then she subtracts 11 days from the length of her longest recorded cycle. This tells her the estimated last day of her fertile time.
Avoid unprotected sex during fertile time	The couple avoids vaginal sex, or uses condoms or a diaphragm, during the fertile time. They can also use withdrawal or spermicides, but these are less effective.
Update calculations monthly	She updates these calculations each month, always using the 6 most recent cycles. Example: <ul style="list-style-type: none"> • If the shortest of her last six cycles was 27 days, $27 - 18 = 9$, she starts avoiding unprotected sex from day 9. • If the longest of her last six cycles was 31 days, $31 - 11 = 20$, she can have unprotected sex again from day 21. • Thus, she must avoid unprotected sex from day 9 through day 20 of her cycle.



Symptoms-Based Methods

All women can use symptoms-based methods. No medical conditions prevent the use of these methods, but some conditions can make them more difficult to use effectively.

Caution means that additional or special counselling may be needed to ensure correct use of the method.

Delay means that use of a particular fertility awareness method should be delayed until the condition is evaluated or corrected. Give the client another method to use until she can start the symptoms-based method.

In the following situations, use caution with symptoms-based methods:

- Recently had an abortion or miscarriage.
- Menstrual cycles have just started or have become less frequent or stopped due to older age. (Menstrual cycle irregularities are common in young women in the first several years after their first monthly bleeding and in older women who are approaching menopause. Identifying the fertile time may be difficult.)
- Has a chronic condition that raises her body temperature (for BBT and symptothermal methods).

In the following situations, delay starting symptoms-based methods:

- Recently gave birth or is breastfeeding. (Delay until normal vaginal secretions have returned—usually at least 6 months after childbirth for breastfeeding women and at least 4 weeks after childbirth for women who are not breastfeeding. For several months after regular cycles have returned, use with caution.)
- An acute condition that raises her body temperature (for basal body temperature and symptothermal methods).
- Irregular vaginal bleeding.
- Abnormal vaginal discharge.

In the following situations, delay or use caution with symptoms-based methods:

- Taking any mood-altering drugs such as anti-anxiety therapies (except benzodiazepines), antidepressants (selective serotonin reuptake inhibitors [SSRIs], tricyclic or tetracyclic), anti-psychotics (including chlorpromazine, thioridazine, haloperidol, risperdone, clozapine, or lithium), long-term use of certain antibiotics, any nonsteroidal anti-inflammatory drug (such as aspirin or ibuprofen), or antihistamines. These drugs may affect cervical secretions, raise body temperature, or delay ovulation.

Providing Symptoms-Based Methods

When to Start

Once trained, a woman or couple usually can begin using symptoms-based methods at any time. Women not using a hormonal method can practice monitoring their fertility signs before they start using symptoms-based methods. Clients who cannot start immediately should be given another method to use until they can start.

Table 6-5. When to Start Symptoms-Based Methods

Woman's Situation	When to Start
Having regular menstrual cycles	Any time of the month No need to wait until the start of next monthly bleeding.
No monthly bleeding	Delay symptoms-based methods until monthly bleeding returns.
After childbirth (whether or not breastfeeding)	She can start symptoms-based methods once normal secretions have returned. Normal secretions will return later in breastfeeding women than in women who are not breastfeeding.
After miscarriage or abortion	She can start symptoms-based methods immediately with special counselling and support, provided she has no infection-related secretions or bleeding due to injury to the genital tract.
Switching from a hormonal method	She can start symptoms-based methods in the next menstrual cycle after stopping a hormonal method.
After taking emergency contraceptive pills	She can start symptoms-based methods once normal secretions have returned.

Explaining How to Use Symptoms-Based Methods

Ovulation Method/Cervical Mucus Method

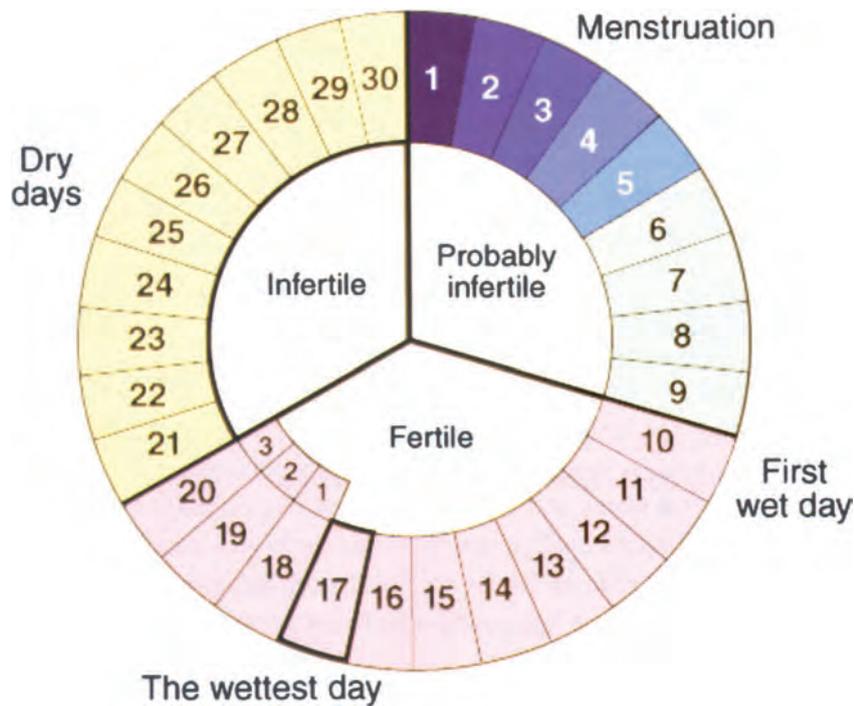
IMPORTANT: If a woman has a vaginal infection or other condition that changes the cervical mucus, this method may be difficult to use.

Table 6-6. Using the Ovulation/Cervical Mucus Method

Basic Principles of the Method	How to Use the Method
Check cervical secretions daily	The woman checks every day for any cervical secretions with fingers, on underwear, or tissue paper or by sensation in or around the vagina.
Avoid unprotected sex on days of heavy monthly bleeding	Ovulation might occur early in the cycle, during the last days of monthly bleeding, and heavy bleeding could make mucus difficult to observe.

Basic Principles of the Method	How to Use the Method
Resume unprotected sex until secretions begin	<p>Between the end of monthly bleeding and the start of secretions, the couple can have unprotected sex, but not on 2 days in a row. (Avoiding sex on the second day allows time for semen to disappear and for cervical mucus to be observed.)</p> <p>It is recommended that they have sex in the evenings, after the woman has been in an upright position for at least a few hours and has been able to check for cervical mucus.</p>
Avoid unprotected sex when secretions begin and until 4 days after “peak day”	<p>As soon as she notices any secretions, she considers herself fertile and avoids unprotected sex.</p> <p>She continues to check her cervical secretions each day. The secretions have a “peak day”—the last day that they are clear, slippery, stretchy, and wet. She will know this has passed when, on the next day, her secretions are sticky or dry, or she has no secretions at all. She continues to consider herself fertile for 3 days after that peak day and avoids unprotected sex.</p>
Resume unprotected sex	The couple can have unprotected sex on the fourth day after her peak day and until her next monthly bleeding begins.

Figure 6-1. Example of a Fertility Wheel to Help Women Use Natural Methods



TwoDay Method

IMPORTANT: If a woman has a vaginal infection or other condition that changes cervical mucus, the TwoDay Method will be difficult to use.

Table 6-7. Using the TwoDay Method

Basic Principles of the Method	How to Use the Method
Check for secretions	The woman checks for cervical secretions every afternoon and/or evening, on fingers, underwear, or tissue paper or by sensation in or around the vagina. As soon as she notices any secretions of any type, colour, or consistency, she considers herself fertile that day and the following day.
Avoid sex or use another method on fertile days	The couple avoids vaginal sex or uses condoms or a diaphragm on each day with secretions and on the day following a day with secretions. They can also use the withdrawal method or spermicides, but these are less effective.
Resume unprotected sex after 2 dry days	The couple can have unprotected sex again after the woman has had 2 dry days (days without secretions of any type) in a row.

Basal Body Temperature (BBT) Method

IMPORTANT: If a woman has fever or other changes in body temperature, the BBT method will be difficult to use.

Table 6-8. Using the Basal Body Temperature (BBT) Method

Basic Principles of the Method	How to Use the Method
Take body temperature daily	The woman takes her body temperature at the same time each morning before she gets out of bed and before she eats anything. She records her temperature on a special graph. She watches for her temperature to rise slightly—0.2°–0.5° C (0.4°–1.0° F)—just after ovulation (usually about midway through the menstrual cycle).
Avoid sex or use another method until 3 days after the temperature rise	The couple avoids vaginal sex, or uses condoms or a diaphragm from the first day of monthly bleeding until 3 days after the woman's temperature has risen above her regular temperature. They can also use withdrawal or spermicides, but these are less effective.

Basic Principles of the Method	How to Use the Method
Resume unprotected sex until next monthly bleeding begins	<p>When the woman's temperature has risen above her regular temperature and stayed higher for 3 full days, ovulation has occurred and the fertile period has passed.</p> <p>The couple can have unprotected sex on the fourth day of raised temperature and until her next monthly bleeding begins.</p>

Symptothermal Method (basal body temperature + cervical secretions + other fertility signs)

Table 6-9. Using the Symptothermal Method

Basic Principles of the Method	How to Use the Method
Avoid unprotected sex on fertile days	<p>Users identify fertile and non-fertile days by combining BBT and ovulation method instructions.</p> <p>Women may also identify the fertile time by other signs such as breast tenderness and ovulatory pain (lower abdominal pain or cramping around the time of ovulation).</p> <p>The couple avoids unprotected sex between the first day of monthly bleeding and either the fourth day after peak cervical secretions or the third full day after the rise in temperature (BBT), whichever happens later.</p> <p>Some women who use this method have unprotected sex between the end of monthly bleeding and the beginning of secretions, but not on 2 days in a row.</p>

Withdrawal Method (Coitus Interruptus)

Coitus interruptus, or withdrawal, is one of the oldest forms of contraception known to man. Coitus interruptus is defined as sexual intercourse that is deliberately interrupted by withdrawal of the penis from the vagina prior to ejaculation. The withdrawal method is not particularly effective as a contraceptive method.

Mode of Action

Withdrawal prior to ejaculation reduces or eliminates the introduction of sperm into the vagina.

Effectiveness

- Perfect use failure rate in first year: 4 percent
- Typical use failure rate in first year: 27 percent

Advantages

- Withdrawal as a contraceptive method is better than no method at all.
- Incurs no expenditure.
- It has relatively few medical complications, except those brought about by an unwanted pregnancy or possible transmission of STIs.
- Requires no preparation or supplies.
- Has no adverse effect on fertility after discontinuation of method.

Limitations

- May not be applicable for couples with sexual dysfunction such as premature ejaculation or unpredictable ejaculation.
- May reduce sexual pleasure of woman and intensity of orgasm in man.
- Requires the couple to think about what is happening during sexual intercourse.
- Relies on the male removing the penis from the vagina at a point prior to orgasm and often when he is in a high state of arousal.
- Provides no protection against STIs such as HIV/AIDS, genital herpes, or gonorrhoea.
- Over the long term, many couples find the withdrawal method frustrating and unsatisfactory.

Medical Eligibility Criteria

All men can use withdrawal. No medical conditions prevent its use.

Method of Use

Starting time: Can begin at any time.

Explaining How to Use

When the man feels close to ejaculating, he should withdraw his penis from the vagina and ejaculate outside the vagina, keeping his semen away from her external genitalia.

If man has ejaculated recently, he should urinate before sex and wipe the tip of his penis to remove any sperm remaining.

Table 6-10. Advice on Use of the Withdrawal Method

Discussion Points on Use of Withdrawal	What to Advise the Man or Couple
Learning proper use can take time	Suggest that the couple also use another method until the man feels that he can use withdrawal correctly with every act of sex.
Greater protection from pregnancy is available	Suggest an additional or alternative family planning method. (Couples who have been using withdrawal effectively should not be discouraged from continuing.)
Some men may have difficulty using withdrawal	Explain that withdrawal is difficult for men who cannot sense consistently when ejaculation is about to occur or for men who ejaculate prematurely.
Can use emergency contraceptive pills (ECPs)	Explain ECP use in case a man ejaculates before withdrawing (see “Emergency Contraceptive Pills”, pp. 45-58 of <i>Family Planning: A Global Handbook for Providers</i>). Give ECPs if available.

7

BARRIER AND PROTECTIVE METHODS

Introduction

Barrier methods of contraception involve the use of mechanical devices that prevent sperm from entering into the cervix. The efficacies of all barrier methods are enhanced with the use of spermicides. Barrier and protective methods include vaginal methods and male and female condoms. These are available over the counter and are inexpensive.

Policy

The available barrier and protective methods are to be offered to the client along with other contraceptives so that the client may choose the method she or he wants. Condoms are to be sold at government-prescribed rates.

Standards

- The client must be provided full information on the use and disposal of condoms.
- The client should be informed that condoms prevent sexually transmitted infections (STIs).
- The client must be informed of the rare occurrence of allergic manifestations with the use of condoms.

Male Condoms

A male condom is a sheath or covering made of thin latex rubber or vinyl that fits over a man's erect penis. Condoms are known by many different brand names and are of different sizes, shapes, colours, and textures.

Mode of Action

A condom works by creating a barrier that keeps sperm out of the vagina, thus preventing pregnancy. It also prevents infections present in the semen, on the penis, or in the vagina from infecting the other partner.

Effectiveness

When used correctly with every act of sex, about 2 pregnancies per 100 women occur over the first year of use. As commonly used, about 15 pregnancies per 100 women occur over the first year of use.

Advantages

- Prevent STIs, including HIV/AIDS, and pregnancy, when used correctly with every act of sexual intercourse. Consistent condom use reduces risks of HIV transmission by approximately 10 fold.
- Help protect against STIs, pelvic inflammatory disease (PID), chronic pain, and possibly cervical cancer in women and infertility in both men and women.
- Can be used to prevent STIs during pregnancy.
- Can be used soon after childbirth.
- Are safe and have no hormonal side effects.
- User-controlled—can be stopped at any time.
- Offer occasional contraception with no daily upkeep.
- Easy to keep on hand in case sex occurs unexpectedly.
- Can be used by men of any age.
- Can be used without seeing a health care provider.
- Usually easy to obtain and are sold in many places.
- Enable a man to take responsibility for preventing pregnancy and disease.
- Increase sexual enjoyment because no need to worry about pregnancy or STIs.
- Often help prevent premature ejaculation (help the man last longer during sex).
- Male involvement is encouraged and is essential.
- Availability of wide range of condom types and designs can add variety.

Limitations

- Latex condoms may cause itching in a few people who are allergic to latex.
- Some people may be allergic to the lubricant on some brands of condoms.
- Either member of a couple may have latex allergy or reaction to spermicide (polyurethane condom is the appropriate alternative).
- May decrease sensation, making sex less enjoyable for either partner.
- The couple must take time to put the condom on the erect penis before sex.
- The supply of condoms must be on hand even if the woman or man is not expecting to have sex.
- There is a small possibility that the condom will slip off or break during sex.
- Condoms can weaken if stored too long or in too much heat or sunlight, or if used with oil-based lubricants, and then may break during use.
- A man's cooperation is needed for a woman to protect herself from pregnancy and STIs.
- May have a bad reputation because many people connect condoms with immoral sex, sex outside marriage, or sex with prostitutes.
- May embarrass some people to buy, ask partner to use, put on, take off, or dispose condoms.
- Use may interrupt or be perceived as interrupting lovemaking. Requires discipline to resist impulse to progress to intercourse after erection.
- May cause man to lose erection.
- Plain condoms may decrease lubrication and provide less stimulation for woman.
- Require prompt withdrawal after ejaculation, which may decrease pleasure.
- Make sex messy for the man (getting rid of condom).
- Require education/experience for successful use.
- Couples may be embarrassed to purchase or to put on condoms due to taboos about touching genitalia.

Client Assessment as per World Health Organization Medical Eligibility Criteria for Male Condoms

In general, anyone can use condoms safely and effectively. Only one medical condition prevents the use of condoms, i.e., severe allergy (severe redness, itching, and swelling after use). The client can be asked about this allergy and no tests are indicated. If the client is at risk of STIs including HIV/AIDS, s/he may use the condoms despite the allergy.

Method of Use

Male condom use can be started at any time. Care should be taken to use condoms for all sexual acts. Just one unprotected act of sexual intercourse can lead to pregnancy or an STI.

Technique of Use

- Make sure condoms are stored properly and obtained from a good source.
- Check manufacturing or expiry date on package.
- Take out condom from package.
- Do not use teeth or sharp objects to open condom package.
- Unroll condom slightly to make sure it unrolls properly.
- Place condom on the tip of the erect penis.
- Squeeze air out of tip of condom about 1–2 cm.
- Unroll condom down the penis.
- If condom is initially placed on the penis backwards, do not turn it around, throw it away and start with a new one.
- Start the sex act with condom on.
- After ejaculation, hold on to the condom at the base of penis while withdrawing it.
- Withdraw while still erect.
- Take off the condom carefully, without spilling semen.
- Tie the open end of the condom to prevent spills or leaks.
- Dispose of the condom safely.

Side Effects and Management

If the client reports any problems with condoms: Do not dismiss the client's concerns or take them lightly. If the client is not satisfied, help him in choosing another contraceptive.

Table 7-1. Male Condoms: Side Effects and Their Management

Side Effect	Management
Itching or rash on genitals	<ul style="list-style-type: none"> • If itching continues, check for infection. Treat or refer for treatment as appropriate. • Recommend a dry condom if client had been using a lubricated condom. • If problem continues, help client to choose another method if client is not at risk of STIs. • For clients at risk of STIs, urge continued use of condom despite discomfort.
Man cannot maintain an erection while using condom	<ul style="list-style-type: none"> • This is often due to embarrassment. • Discuss how to make condom use enjoyable by having partner put it on. With counselling and experience, the problem may be solved. • Suggest a small amount of water-based lubricant on the penis and extra lubricant on the outside. This may increase sensation and help the man maintain an erection.

Counselling

Couples desiring to use condoms often benefit from specific instructions. Use a model and actual condom. Counsel new users about:

- Options among condom types
- Storage for safety and ready access
- How to negotiate condom use with partner and when to place condom on
- How to use the condom correctly

If a condom breaks:

- Clients must use emergency contraceptives to prevent pregnancy.

Provide the following information on care for condoms:

- Store condoms in a cool, dark place, if possible. Heat and light damage condoms.
- If possible, use lubricated condoms that come in square wrappers and are packaged so that light does not reach them. Lubrication may help prevent tears.
- Handle condoms carefully. Fingernails and rings can tear them.
- Do not unroll condoms before use. This may weaken them. Also, an unrolled condom is difficult to put on.

Always use a new condom if the first condom:

- Has torn or damaged packaging.
- Has a manufacturing date on the package that is more than 5 years past.

- Is uneven or changed in colour.
- Feels brittle, dried out, or very sticky.

Explain specific reasons to see a health care provider if either partner:

- Has symptoms of STIs such as sores on the genitals, pain when urinating, or a discharge.
- Has an allergic reaction to condoms (itching, rash, irritation).
- Other specific reasons to return: need more condoms, dissatisfied with condoms for any reason, have any questions or problems.

Follow-Up

At any return visit:

- Ask if the client has any questions or anything to discuss.
- Ask the client about his or her experience with condoms, whether the client is satisfied, and whether the client has any problems. Give any information and advice that the client needs.
- If client is satisfied: Give client plenty of condoms. Give each client a 3-month supply of condoms, if possible, or more. How often people have sex varies, but for most clients, 40 condoms probably will last for at least 3 months.
- If the client had intercourse, did he/she have intercourse even once without using a condom?
- Does the client know how to use ECPs? Does he/she need ECPs?
- If the client has problems that cannot be resolved, help the client choose another method.
- Emphasize to clients at risk for STIs including HIV/AIDS to keep using condoms despite any dissatisfaction. Explain that only condoms protect against STIs.

Female Condoms

The female condom is a sheath, or lining, that fits loosely inside the vagina; it is made of thin, transparent, soft plastic, with a flexible ring at both ends:

- One ring at the closed end helps to insert the condom.
- The ring at the open end holds part of the condom outside the vagina.

Mode of Action

The mode of action of the female condom is the same as that of the male condom.

Effectiveness

When used correctly with every act of sex, about 5 pregnancies per 100 women occur over the first year of use. As commonly used, about 21 pregnancies per 100 women occur over the first year of use.

Advantages

- Cause 97 percent reduction in incidence of HIV infection.
- Do not require male partner's erection for use.
- Are controlled by the woman.
- Are designed to prevent both STIs and pregnancy.
- No medical conditions appear to limit use.
- No apparent side effects, no allergic reactions.
- Intercourse may be more pleasurable because fear of pregnancy and STIs is decreased.
- If woman inserts the condom, she is better assured that she is somewhat protected.
- Make sex less messy for the woman after removal of the condom.
- No medical visit required to start use.
- Immediately effective after placement.
- Provide an option to women whose partners cannot or will not use the male condom. May circumvent some concerns men have with male condoms.
- Can be safely used by people with latex allergies or sensitivities.
- Opportunity for women to share the responsibility for the condoms with their partners.
- Polyurethane, the material from which female condoms are made, is less likely to cause an allergic reaction than male latex condoms. With both types, the likelihood of breakage is very small if the condoms are used correctly.
- The female condom will protect against most STIs and pregnancy if used correctly.
- The polyurethane is thin and conducts heat well, so sensation is preserved.
- The female condom can be used with oil-based lubricants.
- There are no special storage requirements because polyurethane is not affected by changes in temperature and dampness. The expiry date for female condoms is 5 years from the date of manufacture.

Limitations

- Are expensive.
- Ring is visible outside the vagina.
- Can make noises during intercourse.
- Only somewhat effective as commonly used.
- Usually need partner's consent and cooperation.
- Regular supply is required.

- Woman has to touch her genitals.
- Some women find the female condom difficult to insert and remove.
- Have a higher failure rate in preventing pregnancy than non-barrier methods such as the oral contraceptive pill.
- It is recommended that a female condom be used only once.

Client Assessment as per World Health Organization Medical Eligibility Criteria for Female Condoms

All women can use the plastic female condom. No medical condition prevents the use of this method.

Method of Use

A woman can begin using female condoms at any time during her monthly cycle and soon after childbirth, abortion, or miscarriage.

Technique of Use

- Open packaging carefully. Avoid scissors or sharp objects that could cut or tear the condom.
- The client should rest comfortably in a squatting or lithotomy position.
- Compress the inner ring of the device and introduce the condom into the vagina much like a diaphragm. Use the inner ring to guide the sheath high into the vagina until the outer ring rests against the vulva. Rotate the inner ring to stabilize the device in the vault. Avoid tearing the condom with fingernails or jewellery. See package instructions for details and drawings illustrating insertion technique.
- Either the man or woman should manually place the penis into the sheath for intercourse and should take care to avoid penile contact outside the female condom.
- The man should monitor for any friction between penis and condom, which can cause breakage or inversion of the device.
- Remove the condom immediately after intercourse and then discard it.
- If there is any dislocation of the female condom during intercourse or any breakage or spillage of the ejaculate into the genitalia, have the client use emergency contraceptive pills (ECPs) as soon as possible. If she is at risk for STIs when the condom fails, seek medical care.

Caution: When a latex male condom is used with a polyurethane female condom, there can be an increased risk of breakage of either or both condoms. The oil-based lubricant of the female condom can cause breakage of the male condom. Friction could cause breakage of either.

Table 7-2. Female Condoms: Side Effects and Their Management

Side Effect	Management
Difficulty in inserting condom	<ul style="list-style-type: none"> • Re instruct the client.
Problem with removal	<ul style="list-style-type: none"> • Recommend relaxation techniques or suggest that the partner may remove it.
Condom dislodgement or penis inserted outside condom	<ul style="list-style-type: none"> • Insert a new condom prior to continuing intercourse. • Use ECPs if any spill suspected. • If at risk for STIs, seek medical care.
Allergy to condom	<ul style="list-style-type: none"> • Occurs very rarely.

Follow-Up

Return Visit

At any return visit, ask:

- Did the client have any problems using the female condom?
- If the client had intercourse, did she have intercourse even once without using a condom?
- Does the client know how to use ECPs? Does she need more ECPs?
- Does the client plan to have children? Or plan to have more children? When?
- Ask if the client has any questions or anything to discuss.
- Ask the client about her experience with the method, whether she is satisfied, and whether she has any problems. Give her any information or help that she needs and invite her to return again any time she has questions or concerns. If she has problems that cannot be resolved, help her choose another method.
- Ask if she has had any health problems since her last visit.

8

ORAL CONTRACEPTIVE PILLS

Introduction

Oral contraceptive pills (OCPs) have been available since the 1960s. The early preparations contained 50 mcg of oestrogen, but modern preparations contain 20–35 mcg and are called “low-dose” OCPs. Most preparations contain a combination of an oestrogen (usually ethinyl estradiol, in a low dose of 20–35 mcg) and a progestin (norethindrone, norgestrel, desogestrel, or norgestimate). These are called “combined oral contraceptive pills” (COCs). There are two types of COC pill packets. Some packets have 28 pills. These contain 21 “active” pills, which contain hormones, followed by seven “reminder” pills of a different colour, which do not contain hormones, but only iron or lactose. Other packets usually have 21 “active” pills. Women who use oral contraceptives swallow a pill each day to prevent pregnancy.

Progestin-only pills (POPs) are also available, and are useful for women who cannot take oestrogen or are lactating (COCs are not recommended during the initial six months postpartum). These are called “mini-pills.”

Policy

- OCPs are not to be given to a woman who is pregnant or is suspected to be pregnant.
- COCs are not to be given to a lactating mother until the child is 6 months of age.
- POPs are to be given to a lactating mother only after 6 weeks postpartum.
- OCPs are not to be recommended approximately 4 weeks before and 6 weeks after major surgery that requires long-term immobilization.

Standards

The following standards will be observed:

- The client should be given full information about the use, risks, advantages, and possible side effects before OCPs are prescribed for her.
- Pills should be given only to those who meet the Medical Eligibility Criteria (MEC).

Combined Oral Contraceptive Pills

Mode of Action

The combined pills contain both oestrogen and progestin. They act in the following ways:

- Inhibit ovulation.
- Thicken cervical mucus.
- Make the endometrium less suitable for implantation.

There is no evidence of a harmful effect if an unsuspecting pregnant woman inadvertently uses OCPs; nevertheless, a woman should be given OCPs only when it is reasonably certain she is not pregnant.

Effectiveness

Effectiveness Depends on the User

- Risk of pregnancy is greatest when a woman starts a new pill pack after the prescribed time, or misses three or more pills.
- As commonly used, about 8 pregnancies occur per 100 women using COCs over the first year. This means that 92 of every 100 women using COCs will not become pregnant.
- When pills are taken regularly, less than 1 pregnancy occurs per 100 women using COCs over the first year.

Advantages

- Very effective when used correctly.
- No need to do anything at the time of sexual intercourse.
- Increased sexual enjoyment because no need to worry about pregnancy.
- Monthly periods are regular with lighter monthly bleeding and fewer days of bleeding.
- Can be used as long as a woman wants to prevent pregnancy.
- No rest period needed.
- Can be used at any age from adolescence to menopause.

- Can be used by women who have children and by nulliparous women.
- User can stop taking pills at any time.
- Fertility returns soon after stopping.
- Can be used as an emergency contraceptive after unprotected sex.
- Can prevent or decrease iron deficiency anaemia.
- Help prevent:
 - Ectopic pregnancies
 - Endometrial cancer
 - Ovarian cancer
 - Ovarian cysts
 - Pelvic inflammatory disease (PID)
 - Benign breast disease
- Reduce:
 - Menstrual cramps
 - Menstrual bleeding problems
 - Ovulation pain
 - Symptoms of polycystic ovarian syndrome (irregular bleeding, acne, excess hair on face or body)
 - Symptoms of endometriosis (pelvic pain, irregular bleeding)

Limitations

Common side effects (not signs of sickness):

- Nausea (most common in first 3 months).
- Spotting or bleeding between menstrual periods, especially if a woman forgets to take her pills or takes them late (most common in first 3 months).
- Mild headaches.
- Breast tenderness.
- Slight weight gain.
- Amenorrhoea (some women see amenorrhoea as an advantage).
- Not highly effective unless taken every day. Difficult for some women to remember every day.
- New packet of pills must be at hand every 28 days.
- In a few women, may cause mood changes including depression and less interest in sex.

- Very rarely can cause stroke, blood clots in deep veins of the legs, or heart attack. Those at highest risk are women with high blood pressure and women who are aged 35 or older and at the same time smoke 15 or more cigarettes per day.
- Do not protect against sexually transmitted infections (STIs), including HIV.

Client Assessment as per World Health Organization Medical Eligibility Criteria for Combined Oral Contraceptive Pills

Ask the client the following questions about known medical conditions. Examinations and tests are not necessary. If she answers “no” to all of the questions, then she can start COCs if she wants. If she answers “yes” to a question, follow the instructions. In some cases she can still start COCs. These questions also apply for the combined patch and the combined vaginal ring.

1. Is the client breastfeeding a baby younger than 6 months old?
 - If fully or nearly fully breastfeeding: Give her COCs and tell her to start taking them 6 months after giving birth or when breast milk is no longer the baby’s main food—whichever comes first.
 - If partially breastfeeding: She can start COCs as soon as 6 weeks after childbirth.
2. Has the client had a baby in the last 3 weeks but she is not breastfeeding?
 - Give her COCs now and tell her to start taking them 3 weeks after childbirth.
3. Does the client smoke cigarettes?
 - If she is 35 years of age or older and smokes, do not provide COCs. Convince her to stop smoking and help her choose another method.
4. Does the client have cirrhosis of the liver, a liver infection, or liver tumour? (Are her eyes or skin unusually yellow? [Signs of jaundice]) Has she ever had jaundice when using COCs?
 - If she reports serious active liver disease (jaundice, active hepatitis, mild or severe cirrhosis, liver tumours) or ever had jaundice while using COCs, do not provide COCs. Help her choose a method without hormones.
5. Does the client have high blood pressure?
 - If blood pressure cannot be checked and she reports a history of high blood pressure or if she is being treated for high blood pressure, do not provide COCs. Refer her for a blood pressure check if possible or help her choose a method without oestrogen. Check blood pressure if possible: If her blood pressure is below 140/90 mm Hg, provide COCs. If her systolic blood pressure is 140 mm Hg or higher or diastolic blood pressure is 90 or higher, do not provide COCs. Help her choose a method without oestrogen, but not progestin-only injectables if systolic blood pressure is 160 or higher or diastolic pressure is 100 or higher. (One blood pressure reading in the range of 140-159/90-99 mm Hg is not enough to diagnose high blood pressure. Give her a backup method to use until she can return for another blood pressure check, or help her choose another method now if she prefers. If her blood pressure at next check is below 140/90, she can use COCs.)
6. Has the client had diabetes for more than 20 years or damage to her blood vessels, vision, kidneys, or nervous system caused by diabetes?
 - Do not provide COCs. Help her choose a method without oestrogen but not progestin-only injectables.

Client Assessment as per World Health Organization Medical Eligibility Criteria for Combined Oral Contraceptive Pills

7. Does the client have gall bladder disease now or is she taking medication for gall bladder disease?
Do not provide COCs. Help her choose another method, but not the combined patch or combined vaginal ring.
8. Has the client ever had a stroke, blood clot in her legs or lungs, heart attack, or other serious heart problems?
If she reports heart attack, heart disease, or stroke, do not provide COCs. Help her choose a method without oestrogen, but not progestin-only injectables.
If she reports a current blood clot in the deep veins of the legs or lungs (not superficial clots), help her choose a method without hormones.
9. Does the client have or has she ever had breast cancer?
Do not provide COCs. Help her choose a method without hormones.
10. Does the client sometimes see a bright area of lost vision in the eye before a very bad headache (migraine aura)? Does she get throbbing, severe headaches, and often on one side of the head, which can last from a few hours to several days and can cause nausea or vomiting (migraine headaches)? Such headaches are often made worse by light, noise, or moving about.
If she has migraine aura or migraine headaches without aura and is age 35 or older, do not provide COCs. Help these clients choose a method without oestrogen. If she is under 35 and has migraine headaches without aura, she can use COCs.
11. Is the client taking medications for seizures or taking rifampicin for tuberculosis or other medicine?
If she is taking barbiturates, carbamazepine, oxcarbazepine, phenytoin, primidone, topiramate, or rifampicin, do not provide COCs. They can make COCs less effective. Help her choose another method, but not progestin-only pills or implants.
12. Is the client planning major surgery that will keep her from walking for 1 week or more?
If so, she can start COCs 2 weeks after the surgery. Until she can start COCs, she should use a backup method.
13. Does the client have conditions that could increase her chances of heart disease (coronary artery disease) or stroke, such as older age, smoking, high blood pressure, or diabetes?
Do not provide COCs. Help her choose a method without oestrogen but not progestin-only injectables.

Indications

- Have or have not had children
- Are fat or thin
- Are any age, including adolescents and over 40 (except clients who smoke and are above 35 years of age)
- Smoke cigarettes but are below 35 years of age

- Have just had an abortion or miscarriage
- Heavy, painful menstrual periods or iron deficiency anaemia (condition may improve)
- Irregular menstrual periods
- Benign breast disease
- Diabetes without vascular, kidney, eye, or nerve disease
- Mild headaches
- Varicose veins
- Malaria
- Thyroid disease
- Pelvic inflammatory disease (PID)
- Endometriosis
- Benign ovarian tumours
- Uterine fibroids
- Past ectopic pregnancy
- Tuberculosis (unless taking rifampicin)

Method of Use

Starting Time

- Any of the first 5 days after menstrual bleeding starts, if she has a normal cycle. The first day of menstrual bleeding may be easiest to remember.
- Any other time it is reasonably certain that she is not pregnant. If more than 5 days since menstrual bleeding started, she can begin COCs but should avoid sex or also use condoms or spermicide for the next 7 days. Her usual bleeding pattern may change temporarily.
- When switching from injectables or implants, she can start COCs immediately if it is reasonably certain she is not pregnant. No need to wait for a first period after using injectables or implants.
- After she stops breastfeeding or 6 months after childbirth, whichever comes first.
- Three to 6 weeks after childbirth if she is not breastfeeding. No need to wait for menstrual periods to return to be certain that she is not pregnant.
- Six weeks or more after childbirth if she is partially breastfeeding, or any time it is reasonably certain that she is not pregnant. If not reasonably certain, she should avoid sex or use condoms or spermicide until her first period starts, and then begin COCs.
- In the first 7 days after first- or second- trimester miscarriage or abortion. Later, at any time it is reasonably certain that she is not pregnant.

Technique

28-pill packet (containing 21 white [active] and seven brown [placebo]):

- Start the white pills within the first 5 days of the menstrual cycle.
- If not menstruating, start the pills on the same day and keep taking one pill every day until finishing all of the white pills, but use a backup method for the first 7 days of taking the pills.
- Start the brown pills immediately after finishing the white pills and continue taking one pill every day for 7 days.
- Menses usually starts 2–3 days after starting the brown pills.
- After finishing the seven brown pills, start the new packet of 28 pills (it does not matter if bleeding continues).

21-pill packet (containing 21 white pills):

- Start the pills within the first 5 days of the menstrual cycle.
- If not menstruating, start taking the pill and keep taking one pill every day until finishing all of the pills, but use a backup method for the first 7 days of taking the pills.
- After finishing the pills, do not take any pills for the next 7 days.
- Menses usually starts 2–3 days after the pills are finished.
- After a 7-day period of no pills, start the new packet of 21 pills.

Missed Pills

Instructions If a Woman Forgets to Take a Pill or Pills

- Take a missed hormonal pill (white) as soon as possible.
- Keep taking pills as usual, one each day. (She may take two pills at the same time or on the same day.)

Missed one or two pills? Started a new pack 1 or 2 days late?

- Take a hormonal pill as soon as possible.
- There is little or no risk of pregnancy.

Missed three or more pills in the first or second week? Started a new pack 3 or more days late?

- Take a hormonal pill as soon as possible.
- Use a backup method for the next 7 days.
- Also, if she had sex in the past 5 days, she should consider using emergency contraceptive pills (ECPs).

Missed three or more pills in the third week?

- Take a hormonal pill as soon as possible.
- Finish all hormonal pills in the pack. Throw away the seven non-hormonal pills in a 28-pill pack.
- Start a new pack the next day.
- Use a backup method for the next 7 days.
- Also, if she had sex in the past 5 days, she should consider using ECPs.

Missed any non-hormonal pills (brown pills)? (Last seven pills in 28-pill pack)

- Discard the missed non-hormonal pill(s).
- Keep taking COCs, one each day, and start the new pack as usual.

Severe vomiting or diarrhoea?

- If she vomits within 2 hours after taking a pill, she should take another pill from her pack as soon as possible, and then keep taking pills as usual.
- If she has vomiting or diarrhoea for more than 2 days, follow instructions for missed pills, above.

Side Effects and Management

Most women tolerate COCs very well. However, a number of women may have side effects, especially in the first few months of taking the pill.

Table 8-1. Combined Oral Contraceptive Pills: Side Effects and Their Management

Side Effect	Management
Dizziness or nausea	<ul style="list-style-type: none"> • Make sure she is taking the pill at bed time. • She should take the pill with meals and not on an empty stomach. • Check for pregnancy; if no cause is found, reassure the client.
Vomiting	
<ul style="list-style-type: none"> • Once or twice during the day 	<ul style="list-style-type: none"> • If she vomits within 2 hours of taking the pill, ask her to take an extra pill from another packet. • Make sure she is taking the pill just before going to bed and with food.
<ul style="list-style-type: none"> • More than twice a day 	Pills should be stopped; inform her that withdrawal bleeding will occur. Change over to another suitable contraceptive method of her choice.
Severe diarrhoea	If she has diarrhoea for more than 2 days, follow instructions for missed pills as mentioned above.
More than 24 hours of tenderness or fullness of the breast	<ul style="list-style-type: none"> • Follow the instructions for missed pills. <ul style="list-style-type: none"> – Examine breasts for lump. – If none, reassure the client. – Prescribe a mild analgesic (paracetamol), if necessary.

Side Effect	Management
Weight gain	
<ul style="list-style-type: none"> Less than 2 kg in months 	Ask if her appetite has increased, and if so, ask her to decrease food intake, especially of fats and sweets.
<ul style="list-style-type: none"> More than 2 kg in 3 months 	Stop pills; provide another suitable contraceptive method.
Spotting or irregular bleeding	
<ul style="list-style-type: none"> If due to STI or PID 	Continue treatment and COCs.
<ul style="list-style-type: none"> Within 3 months of starting the pills 	<ul style="list-style-type: none"> Reassure the client that it is transitory. Ask if she has been forgetting to take pills. If so, ask her to be regular and take the pill at the same time each day. For temporary relief, give: <ul style="list-style-type: none"> Tab. ibuprofen 800 mg TDS (max) after meals for 5 days, or Tab. Ponstan, 2xTDS, beginning when irregular bleeding starts.
<ul style="list-style-type: none"> After 3 months of starting the pills 	If this persists despite the client being regular in taking pills, then stop pills and give a backup method and watch/investigate. If no problem, reassure and provide another suitable contraceptive method.
Amenorrhoea	<ul style="list-style-type: none"> Check for pregnancy. If negative, reassure and give oral pills with higher dose of hormones. If amenorrhoea persists (after changing pills) for more than 3 months, stop pills and give another suitable contraceptive method.
Rise in BP (above 140/90)	Advise her to come to the clinic for a regular check of BP on three visits, 1 week apart. If high BP persists, stop pills and give another suitable method and refer.
Severe migraine	If it develops while using COCs, stop the pills. Give her another suitable contraceptive method.
Rare side effects	
Acne	
<ul style="list-style-type: none"> Mild acne 	<ul style="list-style-type: none"> Avoid use of creams containing lanolin. Ask her to keep the skin clean. Avoid fatty food.
<ul style="list-style-type: none"> Severe acne 	Stop pills. Give another suitable contraceptive method.
Pigmentation of skin (especially of face)	<ul style="list-style-type: none"> Stop pills. Give another suitable contraceptive method.
Generalized loss of hair	<ul style="list-style-type: none"> Avoid use of creams containing mercury. Ask if this followed after the start of pills; if so, stop pills and give another suitable contraceptive method.
Depression or irritability	If confirmed to have happened after starting the pills, stop pills, and give another suitable contraceptive method.
Loss of sexual desire	If confirmed to have happened after starting pills: <ul style="list-style-type: none"> Rule out local infections as a cause. Stop pills, and give another suitable contraceptive method.

Counselling

A woman who chooses low-dose COCs can benefit from good counselling. A friendly provider who listens to a woman's concerns, answers her questions, and gives clear, practical information about side effects and advice about their proper use will help the woman use COCs with success and satisfaction.

The health care provider should follow these steps to provide COCs:

- Show her which kind of pill packet you are giving her, 21 pills or 28 pills.
- Tell her about the advantages and limitations.
- Inform her about the common side effects and what to do.
- Give her a sufficient number of pill packets, depending on her need. Running out of pills is a major reason for unintended pregnancies.
- Explain how to use COCs and what to do if she misses pills.
- If possible, give her condoms or spermicide to use:
 - Until she can start taking her pills (if needed).
 - If she starts a packet of pills late, if she forgets several pills in a row, or if she stops taking oral contraceptives for any reason.
 - If she or her spouse is at risk of HIV/AIDS or any other STI, show her how to use condoms.
- Plan a return visit in time to give her more pills before her supply runs out.
- Invite the client to come back to the clinic at any time if she has questions, problems, or wants another method.
- Ask her to repeat the most important instructions and, using the pill packet, show how she will take her pills.
- Ask her if she has any questions, fears, or concerns, and answer her concerns respectfully and caringly.
- For any unscheduled visit, ask her to bring the packet in use with her.

Follow-Up

The follow-up care and support of the client is very important for continued use of OCPs. The health care provider has a responsibility to keep the client satisfied, in case she has side effects, by providing correct information and reassurance.

Explain Specific Reasons to See a Trained Health Care Provider

- Describe the symptoms of problems that require medical attention.
- Serious complications of pill use are rare. Still, a client should see a doctor or return to the clinic if she has questions, or problems that may be symptoms of a serious problem or warning signs.

Warning Signs

COCs may or may not cause these problems. But if any of the following occur, the client should immediately contact a trained provider:

- A= Abdominal pain (severe)
- C= Chest pain (severe) with cough and shortness of breath
- H= Headache (severe) with dizziness and shortness of breath
- E= Eye problems (vision loss, blurring, or flashes of light)
- S= Severe leg pain (calf or thigh)

Helping Clients at Any Return Visit

At any return visit, ask the client:

- If she has any questions or anything to discuss.
- About her experience with the method, whether she is satisfied, and whether she has any problems. Give her any information or help that she needs and invite her to return again any time she has questions or concerns. If she has problems that cannot be resolved, help her choose another method.
- If she has had any health problems since her last visit, and assess the following:
 - Check blood pressure once a year if possible.
 - Ask if she has developed high blood pressure, heart disease due to blocked arteries, stroke, breast cancer, active liver disease, or gall bladder disease, or she is taking medicines for seizures, rifampicin, or griseofulvin. If appropriate, help her choose another method.
 - Ask if she has developed very bad headaches. If appropriate, help her choose another suitable method.

Plan for Her Next Visit

If she has not developed any condition, that means she can use COCs; provide more supplies if needed. Plan for her next visit before she needs more pills.

Minimum Record

Maintain the following record for follow-up of the client:

- Daily register.
- Client record card.
- Client card, to be given to the client with information such as:
 - Name, age, and registration number
 - Type of COCs given
 - Date for follow-up visit
- Update records at each visit including details of complaints, side effects, and treatment given.

Progestin-Only Pills

Effectiveness

- Effectiveness depends on the user. For women who have monthly bleeding, risk of pregnancy is greatest if pills are taken late or missed completely.

For breastfeeding women:

- As commonly used, about 1 pregnancy occurs per 100 women using POPs over the first year. This means that 99 of every 100 women will not become pregnant.
- When pills are taken every day, less than 1 pregnancy occurs per 100 women using POPs over the first year (3 per 1,000 women).

For women not breastfeeding, they are less effective:

- As commonly used, about 3–10 pregnancies occur per 100 women using POPs over the first year. This means that 90–97 of every 100 women will not become pregnant.
- When pills are taken every day at the same time, less than 1 pregnancy occurs per 100 women using POPs over the first year (9 per 1,000 women).

Advantages

- Protect against pregnancy.
- Very effective when used correctly.
- No need to do anything at the time of sexual intercourse.
- Increased sexual enjoyment because no need to worry about pregnancy.
- Monthly periods are regular; lighter monthly bleeding and fewer days of bleeding; milder and fewer menstrual cramps.
- Can be used for as long as a woman wants to prevent pregnancy.
- No rest period needed.
- Can be used at any age from adolescence to menopause.
- User can stop taking pills at any time.
- Fertility returns soon after stopping.
- Can be used as an emergency contraceptive after unprotected sex.
- Can be used by nursing mothers starting 6 weeks after childbirth.
- Do not affect quantity and quality of breast milk.
- No oestrogen-related side effects. Do not increase risk of oestrogen-related complications such as heart attack or stroke.
- Women take one pill every day with no break. Easier to understand than taking 21-day combined pills.

- Can be very effective during breastfeeding.

Limitations

Some users report the following:

- Changes in bleeding patterns, including:
 - For breastfeeding women, longer delay in return of monthly bleeding after childbirth (lengthened postpartum amenorrhoea)
 - Irregular menstrual bleeding
 - Amenorrhoea
- Headaches
- Dizziness
- Mood changes
- Breast tenderness
- Abdominal pain
- Nausea
- For women not breastfeeding, enlarged ovarian follicles

Client Assessment as per World Health Organization Medical Eligibility Criteria for Progestin-Only Contraceptive Pills

1. Does the client have or has she ever had breast cancer?
If yes, do not provide POPs. Help her choose a method without hormones.
2. Does the client have jaundice, severe cirrhosis of the liver, a liver infection, or tumour?
Perform physical exam or refer. If she has serious active liver disease (jaundice, painful or enlarged liver, active viral hepatitis, liver tumour), do not provide POPs. Refer for care. Help her choose a method without hormones.
3. Is the client breastfeeding a baby younger than 6 weeks old?
You can give her POPs now, with instructions on when to start—when the baby is 6 weeks old.
4. Does the client have serious problems with her blood vessels? If so, what problems?
Do not provide POPs if she reports blood clots (except superficial clots). Help her choose another effective method.
5. Is the client taking medicine for seizures? Taking rifampicin or griseofulvin?
If she is taking phenytoin, carbamazepine, barbiturates, or primidone for seizures or rifampicin or griseofulvin, provide condoms or spermicide or another contraceptive. If she prefers, or if she is on long-term treatment, help her choose another effective method.
6. Does the client think she is pregnant?
Assess whether pregnant. If she might be pregnant, give her condoms or spermicide to use until reasonably sure that she is not pregnant. Then she can start POPs.

Method of Use

Starting Time

POPs may be given to breastfeeding women:

- As early as 6 weeks after childbirth and at any time after confirmation that she is not pregnant.
- If menstrual periods have returned, she can start POPs at any time it is reasonably certain that she is not pregnant.

POPs may be given to non-breastfeeding women:

- Within 3 weeks of childbirth.

Technique

The client should always take one pill each day at approximately the same time for maximum efficacy, until the pill packet is finished. The more pills she misses, the greater her risk of becoming pregnant.

- When she finishes one pack, she should take the first pill from the next pack on the very next day.
- It is very important to start the next pack on time. Starting a pack late risks pregnancy.

Missed Pills

Instructions If a Woman Forgets to Take a Pill or Pills

It is easy to forget a pill or to be late in taking it. POP users should know what to do if they forget to take pills.

If a woman is 3 or more hours late in taking a pill or misses one completely, she should follow the instructions below:

For breastfeeding women, whether missing a pill places her at risk of pregnancy depends on whether or not her monthly bleeding has returned.

- Take a missed pill as soon as possible.
- Keep taking pills as usual, one each day. (She may take 2 pills at the same time or on the same day.)

If the client has regular monthly bleeding:

- Use a backup method for the next 2 days.
- Also, if she had sex in the past 5 days, she can consider taking ECPs.

If she vomits within 2 hours after taking a pill:

- Take another pill from her pack as soon as possible, and keep taking pills as usual.

- If vomiting or diarrhoea continues, follow the instructions above for making up missed pills.

Table 8-2. Progestin-Only Pills: Side Effects and Their Management

Side Effect	Management
Nausea or dizziness	Take POPs at bedtime and with food.
Breast tenderness	
<ul style="list-style-type: none"> • Women not breastfeeding 	<ul style="list-style-type: none"> • Advise her to wear a supportive bra (including during strenuous activity and sleep). • Use hot or cold compresses. • Give her: <ul style="list-style-type: none"> – Tab. aspirin (325-650 mg), SOS but not more than three times a day – Tab. ibuprofen (200-400 mg), 1BD – Tab. paracetamol (325-1,000 mg), 1TDS <p>The number of tabs will depend on the formulation. The dosage can vary with the severity of the problem.</p>
Amenorrhoea	
<ul style="list-style-type: none"> • Breastfeeding women 	Reassure her that this is normal during breastfeeding. It is not harmful.
<ul style="list-style-type: none"> • Women not breastfeeding 	Reassure her that it is not harmful; in fact, lack of menstruation will help improve her anaemia.
Irregular bleeding	<ul style="list-style-type: none"> • Reassure her that it is not harmful. • Breastfeeding itself may cause irregular bleeding. • Many women using POPs experience irregular bleeding, whether breastfeeding or not: <ul style="list-style-type: none"> – Vomiting or diarrhoea might cause irregular bleeding. – Taking anticonvulsants or rifampicin might cause irregular bleeding. <p>To reduce irregular bleeding:</p> <ul style="list-style-type: none"> • Tell her to make up for missed pills properly, including after vomiting or diarrhoea. • For temporary relief: <ul style="list-style-type: none"> – Tab. ibuprofen 800 mg TDS after meals for 5 days, or – Tab. Ponstan 2TDS, beginning when irregular bleeding starts. • If even after taking medication condition does not improve, counsel her for another method.
<ul style="list-style-type: none"> • If irregular bleeding continues or starts after several months of normal or no monthly bleeding, or you suspect that something may be wrong for other reasons 	<ul style="list-style-type: none"> • Consider underlying conditions unrelated to method use. Refer. • Counsel for another suitable method if needed.

Side Effect	Management
Heavy or prolonged bleeding (twice as much as usual or longer than 8 days)	<ul style="list-style-type: none"> Reassure her that it is not harmful and usually lessens or stops after a few months. For temporary relief: <ul style="list-style-type: none"> Tab. ibuprofen 800 mg (max) TDS after meals for 5 days, or Tab. Ponstan 2TDS, beginning when irregular bleeding starts. Iron Tab. 1 TDS and eat foods containing iron. Consider underlying conditions unrelated to method use. Refer if necessary. Counsel for another suitable method if needed.
<ul style="list-style-type: none"> If heavy or prolonged bleeding continues or starts after several months of normal or no monthly bleeding 	Consider underlying conditions unrelated to method use.
Headache	<p>Give her:</p> <ul style="list-style-type: none"> Tab. aspirin (325-650 mg), 1TDS Tab. ibuprofen (200-400 mg), 1BD Tab. paracetamol (325-1,000 mg), 1TDS <p>The number of tabs will depend on the formulation. Dosage will vary according to the severity of the headache.</p>
<ul style="list-style-type: none"> Headaches that get worse or occur more often 	Counsel her for another suitable contraceptive method.
Depression or irritability	If confirmed to have happened after starting the pills, stop pills; give another suitable contraceptive method.
Loss of sexual desire	<p>If confirmed to have happened after starting pills:</p> <ul style="list-style-type: none"> Rule out local infections as a cause. Stop pills, and give another suitable contraceptive method.
Severe pain in lower abdomen	<p>Many conditions can cause severe abdominal pain. Check for signs and symptoms of ectopic pregnancy, which are:</p> <ul style="list-style-type: none"> Unusual abdominal pain or tenderness Abnormal vaginal bleeding or no monthly bleeding, especially if this is a change from her usual bleeding pattern Light-headedness or dizziness Fainting <p>If ectopic pregnancy or other serious health condition is suspected, refer at once for immediate diagnosis and care.</p>

Counselling

A client who chooses POPs can benefit from good counselling. A friendly provider who listens to a client's concerns, answers her questions, and gives clear, practical information helps the woman use POPs with success and satisfaction. Thorough counselling about bleeding changes and other side effects is an important part of providing the method. Counselling about menstrual changes may be the most important help a client needs to keep using the method.

The health care provider should follow these steps to provide POPs:

- Show the client the POP packet that she will use, even if she will be getting her pills elsewhere later.
- Explain that all pills in POP packets are the same white colour and all are active hormonal pills.
- Tell her about the advantages and limitations.
- Inform her about the common side effects and what to do.
- Give her a sufficient number of pills packets, depending on her need. Running out of pills is a major reason for unintended pregnancies.
- Explain how to use POPs and what to do if she misses pills.
- If possible, give her condoms or spermicide to use:
 - Until she can start taking her pills (if needed).
 - If she starts a packet of pills late, if she forgets several pills in a row, or if she stops taking oral contraceptives for any reason.
 - If she or her spouse are at risk of HIV/AIDS or any other STI, show her how to use condoms.
- Plan a return visit in time to give her more pills before her supply runs out.
- Invite the client to come back to the clinic at any time if she has questions, problems, or wants another method.
- Ask her to repeat the most important instructions and, using the pill packet, show her how she will take her pills.
- Ask her if she has any questions, fears, or concerns, and answer her concerns respectfully and caringly.
- For any unscheduled visit, ask her to bring the packet in use with her.

Follow-Up

The follow-up care and support of the client is very important for continued use of OCPs. The health care provider has a responsibility to keep the client satisfied, in case she has side effects, by providing correct information and reassurance.

Explain Specific Reasons to See a Trained Health Care Provider

Assure the client that she is welcome to come back at any time, especially if:

- She has problems, questions, or wants another method.
- She has a major change in health status.
- She thinks she might be pregnant.
- She has stopped breastfeeding and wants to switch to another method.
- She took a pill more than 3 hours late or missed one completely, and also had sex during this time; she may wish to consider ECPs.

She should immediately see a health care provider if she has any of the following warning signs.

Warning signs

- A=** Abnormal heavy bleeding
- S=** Stroke and heart disease (chest pain with dyspnoea)
- H=** Headache (severe)
- Y=** Yellow colour of eyes (jaundice)

Helping Clients at Any Return Visit

- Ask if the client has any questions or anything to discuss.
- Ask the client about her experience with the method, whether she is satisfied, and whether she has any problems. Give her any information or help that she needs and invite her to return again at any time she has questions or concerns. If she has problems that cannot be resolved, help her choose another suitable contraceptive method.

Plan for Next Visit

- Encourage her to come back for more pills before she uses up her supply of pills.

Minimum Record

Maintain the following record for follow-up of the client:

- Daily register
- Client record card
- Client card, to be given to the client with information such as:
 - Name, age and registration number
 - Type of POP given
 - Date for follow-up visit

Update records at each visit including details of complaints, side effects, and treatment given.

INJECTABLES

Introduction

Injectable contraceptives contain female hormones. These hormones are slowly released in a woman's body and provide protection against pregnancy. Two types of injectable contraceptives are available in Pakistan. These are:

- Progestin-only injectable contraceptives (PICs), which contain only progestin.
- Combined injectable contraceptives (CICs), which contain oestrogen as well as progesterone.

Policy

- Injectables will not be given to:
 - A woman who is pregnant or suspected to be pregnant.
 - Postpartum women before 6 weeks after childbirth if breastfeeding for Depo-Provera/ Megestron and Norigest, and 6 months postpartum for Mesigyna.
- Injectables can be given to women immediately after abortion on their request.

Standards

The following standards must be maintained:

- Complete asepsis must be ensured while the injection is given.
- Use of disposable syringes should be made compulsory.
- All health care providers must be trained in the technique of administering injectables.

Progestin-Only Injectables

The injectable contraceptives DMPA (depot medroxyprogesterone acetate) and NET-EN (norethindrone enanthate) each contain synthetic progestin like the natural hormone progesterone that is in a woman's body.

DMPA

This progestin injectable contraceptive (PIC) contains depot medroxyprogesterone acetate and is prepared as a micro-crystalline suspension. A dose of 150 mg in 1 ml of the suspension is given by deep intramuscular injection at regular, 12-week intervals to protect the client from unwanted pregnancy. DMPA, the most widely used PIC, is also known as “the shot”, “the jab”, Depo, Depo-Provera, and Megestron.

NET-EN

This PIC contains norethindrone enanthate and is prepared in an oily solution. A dose of 200 mg in 1 ml of oily solution is given by deep intramuscular injection regularly at 8-week intervals to protect the client from unwanted pregnancy.

Mode of Action

The progestin in the injectables acts as a contraceptive by:

- Inhibiting ovulation most of the time.
- Thickening cervical mucus to form a plug, which inhibits the transport of sperm.
- Making the endometrium less suitable for implantation of the fertilized ovum.

Effectiveness

- When women have injections on time, less than 1 pregnancy occurs per 100 women.
- As commonly used, about 3 pregnancies occur per 100 women.

Pregnancy rates may be higher for women who are late for an injection or who miss an injection, or if providers run out of supplies.

Advantages

- Very effective.
- Privacy—No one else can tell that a woman is using it.
- One injection prevents pregnancy for 2–3 months.
- Is reversible.
- Does not interfere with sex.
- Increased sexual enjoyment because no need to worry about pregnancy.
- No daily pill-taking.
- Allows some flexibility in return visit; client can return for next injection up to 4 weeks late for DMPA and 2 weeks late for NET-EN.
- Does not affect the quantity and quality of breast milk.

- Can be used by nursing mothers as soon as 6 weeks after childbirth.
- No oestrogen-related side effects.
- Helps prevent endometrial cancer.
- Helps prevent uterine fibroids.
- May help prevent ovarian cancer.
- Special advantages for some women:
 - May help prevent iron-deficiency anaemia.
 - Makes sickle cell crises less frequent and less painful.
- Reduces symptoms of endometriosis (pelvic pain, irregular bleeding).
- Protects against symptomatic pelvic inflammatory disease (PID).
- Women who are infected with HIV, have AIDS, or are on antiretroviral (ARV) therapy can safely use progestin-only injectables.

Limitations

- Menstrual changes like spotting and irregular bleeding are common in the first few months of use with both Norigest and Depo-Provera/Megestron.
- Amenorrhoea after prolonged use may occur.
- The return of fertility can be delayed after stopping the injection—an average of 10 months for DMPA and 6 months for NET-EN.
- Cannot be easily discontinued or removed from the body if complications develop or if pregnancy is desired.
- Does not protect against sexually transmitted infections (STIs), including HIV/AIDS.

Client Assessment as per World Health Organization Medical Eligibility Criteria for Progestin-Only Injectables

Ask the client the questions given below. If the answer is “no” to all of the questions, then the client can use injectables. If the answer is “yes” to a question, follow the instructions.

1. Is the client breastfeeding a baby younger than 6 weeks old?
Start using injectables 6 weeks after childbirth. If fully or almost fully breastfeeding, she is protected from pregnancy for 6 months after childbirth or until her menstrual period returns. The client must begin contraception at once to avoid pregnancy. Encourage her to continue breastfeeding.
2. Does the client have problems with her heart or blood vessels? Has she ever had such problems? If so, what problems?
Do not provide injectables if the client reports heart attack, heart disease due to blocked arteries, stroke, blood clots (except superficial clots), severe chest pain with unusual shortness of breath, severe high blood pressure, diabetes for more than 20 years, or damage to vision, kidneys, or nervous system caused by diabetes. Help the client choose another effective method except combined hormonal contraceptives.
3. Does the client have high blood pressure?
If the client reports high blood pressure, check BP immediately. If systolic BP is over 160 or diastolic BP over 100, do not provide the injection. Help the client choose another method except combined oral contraceptive (COCs)/CICs.
4. Does the client have or has she ever had breast cancer?
Do not provide the injection. Help the client choose a method without hormones.
5. Does the client have severe cirrhosis of the liver, a liver infection, or tumour? (Are the client’s eyes or skin unusually yellow?)
Perform physical examination or refer. If the client has serious active liver disease (jaundice, painful or enlarged liver, viral hepatitis, or liver tumour) do not provide the injection. Refer for care. Help the client choose a method without hormones.
6. Does the client think she is pregnant?
Assess whether pregnant. Give condoms to use until reasonably sure that pregnancy is excluded. Then the injection can be given.
7. Does the client have vaginal bleeding that is unusual for her?
If the client has unexplained vaginal bleeding that suggests an underlying medical condition, do not provide the injection. (PICs could make diagnosis and monitoring of any treatment difficult.) Assess and treat any underlying condition as appropriate, or refer. Help her to choose a suitable method while being evaluated and treated. After treatment, reevaluate for use of PICs. Be sure to explain the health benefits, risks, and the side effects of the method that the client will use. Also, point out any conditions that would make the method inadvisable.

Method of Use

- Any time it is reasonably certain that the client is not pregnant. If she is not at risk of pregnancy (for example, has not had sex since her last menstrual period), she may start injections at any time she wants.

- During the first 7 days after menstrual bleeding begins, no backup method is needed for extra protection.
- If she is starting on or after day eight of her menstrual period, she should use condoms or avoid sex for the next 7 days. If possible, give her condoms or spermicides.
- If a woman is breastfeeding, she may start PICs as early as 6 weeks after childbirth.
- If she is switching from any other hormonal method, injectables can be given immediately.
- If switching from a non-hormonal contraceptive, and she is not menstruating at present, she should use a condom or avoid sex for the next 7 days. In the case of switching in the first 7 days of the menstrual period, no backup method is required.

Equipment and Supplies Needed for Injection

- One of the injectables
- Antiseptic and cotton wool
- 2- or 5-ml disposable syringe with disposable needle

Technique for Giving Injection

1. Wash hands with soap and water.
2. If injection site is dirty, clean it with a wet swab.
3. Shake vial gently for DMPA. No need to do it for NET-EN.
4. If vial is cold, warm to skin temperature by rubbing between palms before giving injection. Now fill syringe with full dose.
5. Insert sterile needle deep into the upper arm (deltoid muscle) or into buttocks (gluteal muscle, upper outer portion). Inject the contents of the syringe.
6. Do not massage the injection site, as it causes the medicine to be absorbed too quickly.
7. Maintain the record of injections.

Figure 9-1. Injection Sites for Progestin-Only Injectables

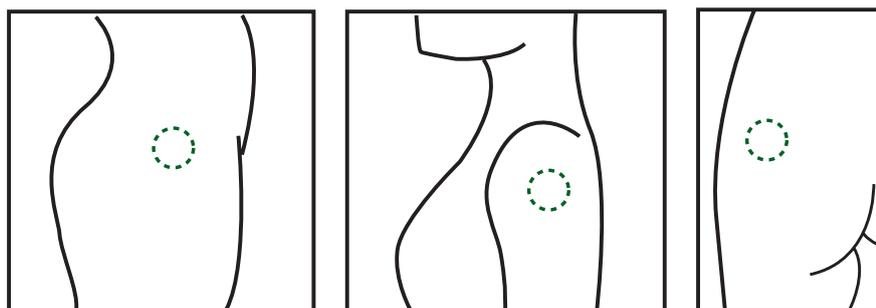


Table 9-1. Progestin-Only Injectables: Side Effects and Their Management

Side Effect	Management
Amenorrhoea (no monthly bleeding period)	<ul style="list-style-type: none"> • Is normal among injection users (especially DMPA) and not harmful. The client is not pregnant. Menstrual blood is not building up inside her. Instead, her body is not producing blood. • Explain that this can improve her health. It helps to prevent anaemia. • If not having monthly bleeding is bothering her, she may want to switch to monthly injectables, if available.
Spotting or bleeding between monthly periods	<ul style="list-style-type: none"> • Spotting or bleeding between periods is normal and very common during the first few months of injection use. It is not harmful. • If spotting or bleeding persists or follows a period of amenorrhoea, rule out gynaecological problems. • If a gynaecological problem is found, treat or refer. • If irregular bleeding is caused by STI or PID, continue injections. Treat the cause or refer. • For modest, short-term relief, take 800 mg (max) ibuprofen three times daily or 500 mg mefenamic acid three times daily after meals for 5 days, beginning when irregular bleeding starts. • If irregular bleeding continues, or starts after several months of normal or no monthly bleeding, or if it is suspected that something may be wrong for another reason, consider underlying conditions unrelated to method use.
Heavy or prolonged bleeding (more than 8 days long or twice as much as her usual menstrual period)	<p>Reassure her.</p> <ul style="list-style-type: none"> • For modest, short-term relief, a client can take: <ul style="list-style-type: none"> – Combined oral contraceptive (COCs), taking one pill daily for 21 days, beginning when heavy bleeding starts. – 50 mcg of ethinyl estradiol daily for 21 days, beginning when heavy bleeding starts. • If bleeding becomes a health threat or if the woman wants to switch methods, help her choose another method. • To prevent anaemia, suggest iron tablets and tell the woman it is important to eat foods that contain iron, such as meat, poultry, fish, green leafy vegetables, and legumes. • If heavy or prolonged bleeding continues or starts after several months of normal or no monthly bleeding, consider underlying conditions unrelated to method use.

Side Effect	Management
Unexplained abnormal vaginal bleeding that suggests pregnancy or an underlying medical condition	<ul style="list-style-type: none"> Refer or evaluate by history and pelvic examination. Diagnose and treat as appropriate. If no cause of bleeding can be found, consider stopping PICs to make diagnosis easier. Provide another method of her choice. If bleeding is caused by STIs or PID, she can continue using PICs during treatment.
Ordinary headaches	<ul style="list-style-type: none"> Suggest aspirin (325-650 mg), ibuprofen (200-400 mg), paracetamol (325-1,000 mg), or another pain reliever. Any headaches that get worse or occur more often should be evaluated.
Migraine headaches	<ul style="list-style-type: none"> If a woman has migraine headaches without aura, she can continue to use the method if she desires. If she has migraine with aura, do not give the injection. Help her choose a method without hormones.
Mood changes	<ul style="list-style-type: none"> Ask about changes in her life that could affect her mood, including her relationship with her partner. Give support as appropriate. Refer clients who have serious mood changes such as major depression.

Method-Specific Counselling

Pre-Procedure Counselling

After greeting the client and making her comfortable, ask questions to confirm that she needs a contraceptive for long-term use.

Give the following information:

- Tell the client that there are two types of injectables.
- Show the client the injection ampoule and disposable syringe.
- Explain how the injection acts as a contraceptive. Explain its method of use.
- Tell the client about advantages and limitations.
- Discuss doubts and fears that the client may have and help dispel these by providing adequate information.
- Answer any questions the client asks.

Post-Procedure Counselling

Give information to the client regarding the schedule for follow-up, possible side-effects, and their management.

Schedule for Next Injection

Give the following information to the clients:

- Acceptors of injection NET-EN should report for the next injection after exactly 8 weeks. However, it can be given within 2 weeks earlier or later.
- Acceptors of injection DMPA should report for the next injection after exactly 12 weeks. However, it can be given 4 weeks earlier or later.
- The client can come at any time in case of any problem.

Combined Injectable Contraceptives

Combined injectable contraceptives (CICs) are also called monthly injectables. They contain two hormones—a progestin and an oestrogen. In contrast, PICs contain progestin only. These differences result in more regular bleeding and fewer bleeding disturbances than with PICs.

Mesigyna: This CIC contains both norethindrone enanthate (NET-EN) 50 mg and estradiol valerate 5 mg in 1 ml of oily solution, and provides protection for 4 weeks.

Mode of Action

Works primarily by inhibiting ovulation.

Effectiveness

Effectiveness depends on the client's returning on time: Risk of pregnancy is greatest when a woman is late for an injection or misses an injection:

- When women have injections on time, less than 1 pregnancy occurs per 100 women using monthly injectables over the first year (5 per 10,000 women).
- As commonly used, about 3 pregnancies occur per 100 women using monthly injectables over the first year. This means that 97 of every 100 women using monthly injectables will not become pregnant.

Advantages

- Most of the advantages are the same as those for PICs.
- Return of fertility may be delayed, but the delay is less than with PICs. Women can become pregnant on an average of 5 months after their last injection.

Limitations

Long-term studies of monthly injectables are limited, but researchers expect that their health risks are similar to those of COCs.

- Some user reports the following:
 - Changes in bleeding patterns including infrequent bleeding, amenorrhoea, or prolonged bleeding
 - Breast tenderness
 - Headache, dizziness
 - Weight gain
- CICs require frequent clinic visits after 4 weeks.
- There is less flexibility in case of late injection (1 week only).
- Cannot be used by breastfeeding mothers before 6 months postpartum.

Client Assessment as per World Health Organization Medical Eligibility Criteria for Combined Injectable Contraceptives

Ask the client the questions given below about any known medical conditions. If she answers “no” to all of the questions, then she can start monthly injectables if she wants. If she answers “yes” to a question, follow the instructions. In some cases she can still start monthly injectables.

1. Is she breastfeeding a baby younger than 6 months old?
 - If fully or nearly fully breastfeeding: She can start 6 months after giving birth or when breast milk is no longer the baby’s main food—whichever comes first.
 - If partially breastfeeding: She can start monthly injectables as soon as 6 weeks after giving birth.
2. Has she had a baby in the last 3 weeks and is not breastfeeding?
She can start monthly injectables as soon as 3 weeks after childbirth.
3. Does she smoke 15 or more cigarettes a day?
If she is 35 years of age or older and smokes more than 15 cigarettes a day, do not provide monthly injectables. Urge her to stop smoking and help her choose another method.
4. Does she have severe cirrhosis of the liver, a liver infection, or liver tumour? (Are her eyes or skin unusually yellow? [signs of jaundice])
If she reports serious active liver disease (jaundice, active hepatitis, severe cirrhosis, liver tumour), do not provide monthly injectables. Help her choose a method without hormones. (If she has mild cirrhosis or gall bladder disease, she can use monthly injectables.)
5. Does she have high blood pressure?
If you cannot check her blood pressure and she reports a history of high blood pressure, or if she is being treated for high blood pressure, do not provide monthly injectables. Refer her for a blood pressure check if possible or help her choose another method without oestrogen.
Check her blood pressure if possible:
 - If blood pressure is below 140/90 mm Hg, provide monthly injectables.
 - If systolic blood pressure is 140 mm Hg or higher or diastolic blood pressure is 90 or higher, do not provide monthly injectables. Help her choose a method without oestrogen, but not PICs if systolic blood pressure is 160 or higher or diastolic pressure is 100 or higher.

Client Assessment as per World Health Organization Medical Eligibility Criteria for Combined Injectable Contraceptives

(One blood pressure reading in the range of 140-159/90-99 mm Hg is not enough to diagnose high blood pressure. Provide a backup method to use until she can return for another blood pressure check, or help her choose another method now if she prefers. If blood pressure at next check is below 140/90, she can use monthly injectables.)

6. Has she had diabetes for more than 20 years or damage to her arteries, vision, kidneys, or nervous system caused by diabetes?
Do not provide monthly injectables. Help her choose a method without oestrogen but not progestin-only injectables.
7. Has she ever had a stroke, blood clot in her legs or lungs, heart attack, or other serious heart problems?
If she reports heart attack, heart disease due to blocked or narrowed arteries, or stroke, do not provide monthly injectables. Help her choose a method without oestrogen, but not PICs. If she reports a current blood clot in the deep veins of the leg or in the lung (not superficial clots), help her choose a method without hormones.
8. Does she have or has she ever had breast cancer?
Do not provide monthly injectables. Help her choose a method without hormones.
9. Does she sometimes see a bright area of lost vision in the eye before a very bad headache (migraine aura)? Does she get throbbing, severe head pain, often on one side of the head, that can last from a few hours to several days and can cause nausea or vomiting (migraine headaches)?
If she has migraine aura at any age, do not provide monthly injectables. If she has migraine headaches without aura and is age 35 or older, do not provide monthly injectables. Help these women choose a method without oestrogen. If she is under 35 and has migraine headaches without aura, she can use monthly injectables.
10. Is she planning major surgery that will keep her from walking for 1 week or more?
If so, she can start monthly injectables 2 weeks after the surgery. Until she can start monthly injectables, she should use a backup method.
11. Does she have several conditions that could increase her chances of heart disease (coronary artery disease) or stroke, such as older age, smoking, high blood pressure, or diabetes?
Do not provide monthly injectables. Help her choose a method without oestrogen, but not PICs.

Method of Use

The method of use for CICs is the same as for PICs, with the following exceptions:

- If a woman is fully or nearly fully breastfeeding, then she may start the method after 6 months postpartum or when breast milk is no longer the baby's main food—whichever comes first.
- If more than 6 months postpartum and she does not have monthly bleeding, she can start injectables at any time it is reasonably certain that she is

not pregnant. She will need a backup method for the first 7 days after the injection.

- If she is partially breastfeeding, the first injection should be delayed until 6 weeks postpartum.
- Non-breastfeeding mothers can start CICs at any time on days 21–28 postpartum. No need for a backup method.
- If she is more than 4 weeks postpartum with no monthly bleeding, she can start CICs at any time if it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after the injection.
- After miscarriage or abortion, a woman can start CICs immediately or within 7 days after first or second trimester abortion. No need for backup method. If more than 7 days postabortion, she can start injection any time after pregnancy is excluded, but will need a backup method for the first 7 days after the injection.
- After taking emergency contraceptive pills (ECPs), she can start a CIC on the same day. There is no need to wait for the next monthly bleeding. She will need a backup method for the first 7 days after the injection.

Managing Late Injection

- If the client is less than 7 days late for a repeat injection, she can receive her next injection. There is no need for tests, evaluation, or a backup method.
- A client who is more than 7 days late can receive her next injection if:
 - She has not had sex since 7 days after she should have had her last injection, or
 - She has used a backup method or has taken ECPs after any unprotected sex since 7 days after she should have had her last injection.
 - She will need a backup method for the first 7 days after the injection.
- If the client is more than 7 days late and does not meet these criteria, additional steps can be taken to be reasonably certain she is not pregnant.
- Discuss why the client was late and ways to avoid this happening again. If coming back on time is often a problem, discuss using a backup method when she is late for her next injection, taking ECPs, or choosing another method.

Technique for Giving Injection

The technique for giving the injection is the same as that for NET-EN except it can be given deep into the anterior outer thigh as well.

Figure 9-2. Injection Sites for Combined Injectable Contraceptives

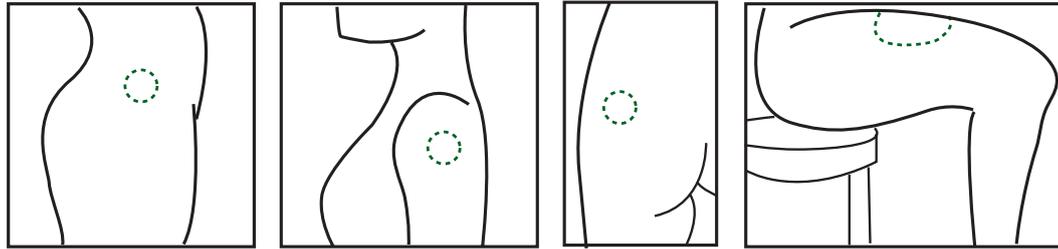


Table 9-2. Combined (Monthly) Injectables: Side Effects and Their Management

Side Effects	Management
Irregular bleeding	Same as PIC
Prolonged bleeding	Same as PIC
No monthly bleeding	Same as PIC
Headache	Same as PIC
Dizziness	Same as PIC
Weight gain	Same as PIC
Breast tenderness	<ul style="list-style-type: none"> Advise the client to wear supportive bra (including during strenuous activity and sleep). Give pain killer (aspirin, paracetamol, or ibuprofen).

Method-Specific Counselling

Pre-Procedure Counselling

After greeting the client and making her comfortable, ask questions to confirm that she needs a contraceptive for long-term use.

Give the following information:

- Show the client the injection ampoule and disposable syringe.
- Explain how the injection acts as a contraceptive.
- Explain its method of use.
- Tell the client about advantages and limitations.
- Discuss doubts and fears that the client may have and help dispel these by providing adequate information.
- Answer any questions the client asks.

Post-Procedure Counselling

Give information to the client regarding the schedule for follow-up, possible side-effects, and their management.

Schedule for Next Injection

She should report for the next injection after 4 weeks. However, she can receive her injection 7 days earlier or later.

Follow-Up

Ask the following questions at any return visit:

- Ask the client if she has any questions or anything to discuss.
- Ask the client about her experience with the method, whether she is satisfied, and whether she has any problems. Give her any information or help that she needs and invite her to return any time she has questions or concerns. If she has problems that cannot be resolved, help her choose another method.
- Ask about her bleeding patterns.
- Ask if she has had any health problems since her last visit:
 - If the client has developed heart disease due to blocked arteries, stroke, blood clots (except superficial clots), breast cancer, severe high blood pressure, migraine, or active liver disease, help her choose a method without hormones.

Recordkeeping

Maintain the following minimum information for proper follow-up of the client:

- Daily client register.
- Client record card: record information about age, weight, parity, menstrual history, and findings of physical examination.
- Injection diary especially prepared and supplied for the purpose. Note the client's name, address, date of first injection, and also due date for the next injection.
- Client card: give this card to the client after entering on it her name, address, registration number, particulars of the contraceptive given, and the follow-up date.

Update all records after each follow-up visit, including details of complaints or side effects and treatment given, as per policy.

INTRAUTERINE CONTRACEPTIVE DEVICE (IUCD)

Introduction

Intrauterine contraceptive devices (also referred to as IUCDs) have been used by women in Pakistan since 1965, when the government-sponsored family planning (FP) program was launched. The IUCD is suitable and convenient for birth spacing. Once inserted, it is effective for 5–12 years.

The types now most widely used are copper-bearing IUCDs made of plastic with copper sleeves/copper wire on the plastic, for example, the CuT-380A and Multiload Cu-375; and hormone-containing IUCDs, such as the levonorgestrel intrauterine system (LNG-IUS).

Copper-Bearing IUCD	Hormone-Containing IUCD
<ul style="list-style-type: none"> • CuT-380A • MLCu-375 	Levonorgestrel intrauterine system (LNG-IUS)

Policy

- The IUCD will be inserted by a medical or paramedical health care provider who is trained in its insertion technique.
- IUCD insertion will be performed in a facility that has acceptable standards of asepsis and infection control.

Standards

The following standards should be maintained:

- The client seeking the IUCD should be provided with all necessary information regarding advantages, effectiveness, limitations, side effects, and warning

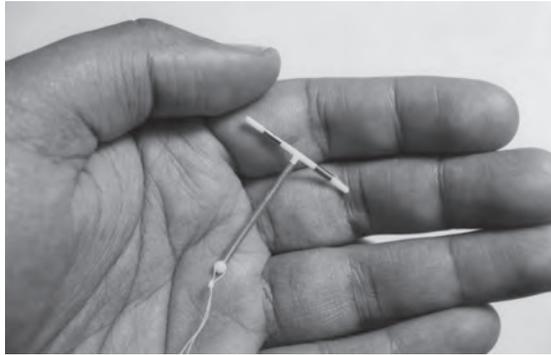
signs of the IUCD. The procedure for its insertion and removal must be fully explained.

- The health care provider must refer the client to a doctor if:
 - Perforation is suspected.
 - Pregnancy occurs with the IUCD in place.
 - There are symptoms or signs of pelvic inflammatory disease (PID).

Copper-Bearing Intrauterine Contraceptive Devices

Mode of Action

- Prevents fertilization, primarily by interfering with the ability of sperm to survive and to ascend to the fallopian tubes where fertilization occurs.
- Alters or inhibits sperm migration, ovum transport, and fertilization.
- Creates a sterile foreign-body reaction in the endometrium, which is potentiated by copper ions.



Effectiveness

The CuT-380A is effective for 12 years and the MLCu-375 is effective for 5 years. The copper IUCD is one of the most effective and long-lasting methods of contraception. Less than 1 pregnancy per 100 women using an IUCD occurs over the first year (6–8 pregnancies per 1,000 women). This means that 992–994 of every 1,000 women using IUCDs will not become pregnant.

A small risk of pregnancy remains beyond the first year of use and continues as long as the woman is using the IUCD. Over 10 years of IUCD use, there would be about 2 pregnancies per 100 women.

Advantages

- A single decision leads to effective, long-term prevention of pregnancy.
- Very effective.
- No interference with sex.
- Increased sexual enjoyment because no need to worry about pregnancy.
- Immediately reversible. After removal, pregnancy can occur as quickly as in women who have not used IUCDs.
- Has no effect on lactation. Can be inserted immediately after childbirth or after abortions (if no evidence of infection).

- Can be used through menopause (1 year or so after last menstrual period).
- No interactions with any medicines.
- Reduces the risk of ectopic pregnancy (less risk of ectopic pregnancy than in women not using any FP method).

Limitations

- Changes in bleeding pattern, especially in the first 3–6 months, but likely to lessen after 3 months of use:
 - Longer and heavier menstrual periods
 - Irregular bleeding or spotting between periods
 - More cramps or pain during periods
 - May contribute to anaemia, if the woman has low iron blood stores before insertion and IUCD causes heavier monthly bleeding
- Perforation of the wall of the uterus (very rare, if IUCD properly inserted).
- Does not protect against sexually transmitted infections (STIs) including HIV/AIDS.
- Client cannot stop IUCD use on her own. A trained health care provider is required for removal.
- May come out of the uterus, without the woman's knowledge.

Client Assessment as per World Health Organization Medical Eligibility Criteria for IUCD

Ask the client the questions below. If she answers “no” to all of the questions, then the IUCD can be inserted if she wants. If she answers “yes” to a question below, follow the instructions:

1. Does the client think she is pregnant?
Assess whether pregnant. Do not insert the IUCD. Give her condoms or spermicide to use until reasonably sure that she is not pregnant.
2. Does the client have vaginal bleeding that is unusual for her?
If she has unexplained vaginal bleeding that suggests pregnancy or an underlying medical condition, use of an IUCD could make diagnosis and monitoring of any treatment more difficult. Help her choose a method to use while being evaluated and treated (but not a hormonal IUCD, progestin-only injectables, or implants). After treatment, re-evaluate for IUCD use.
3. Did the client give birth more than 48 hours but less than 4 weeks ago?
Delay inserting an IUCD until 4 or more weeks after childbirth. If needed, give her condoms.

Client Assessment as per World Health Organization Medical Eligibility Criteria for IUCD

4. Does she have an infection following childbirth or abortion?

If she currently has infection of the reproductive organs during the first 6 weeks after childbirth (puerperal sepsis) or she just had an abortion-related infection in the uterus (septic abortion), do not insert the IUCD. Treat or refer her if she is not already receiving care. Help her choose another method or offer a backup method. After treatment, re-evaluate for IUCD use.

Note: Assure confidentiality before asking the remaining questions.

5. Has the client had a sexually transmitted infection (STI) or pelvic inflammatory disease (PID) in the last 3 months? Does she have an STI, PID, or any other infection in the female organs now? (Signs and symptoms of PID: severe pelvic infection with pain in lower abdomen and possibly also abnormal vaginal discharge, fever, or frequent urination with burning.) If she has no tenderness in the abdomen or when the cervix is moved, however, she probably does not have pelvic infection.

Women who have a very high individual likelihood of exposure to gonorrhoea or chlamydia should not have an IUCD inserted. Do not insert the IUCD now. Advise her to use condoms for STI protection. Treat or refer the client and her spouse. The IUCD can be inserted 3 months after cure unless re-infection is likely.

6. Does the client have AIDS?

Do not insert an IUCD if she has AIDS unless she is clinically well on antiretroviral therapy. If she is infected with HIV but does not have AIDS, she can use an IUCD. If a woman who has an IUCD in place develops AIDS, she can keep the IUCD. Whatever method she chooses, advise condom use. Give her condoms.

7. Does she think that she might get an STI in the future? Does she or her spouse have more than one sex partner?

A woman who has a very high individual likelihood of STIs should not have an IUCD inserted. Advise her to use condoms and help her choose another method.

8. Does she have cancer or tuberculosis of the female reproductive organs?

In case of known cervical, endometrial, or ovarian cancer; benign or malignant trophoblast disease; or pelvic tuberculosis: Do not insert an IUCD. Treat or refer her for care as appropriate. Help her choose another effective method.

Be sure to explain the health benefits, risks, and side effects of the method that the client will use. Also, point out any conditions that would make the method inadvisable for the client.

Characteristics and Conditions

Characteristics and conditions listed below are in World Health Organization (WHO) Eligibility Criteria category 1. Women with characteristics and conditions in WHO category 2 also can use this method. With proper counselling, women of any age or with any number of children can use the IUCD. (Age under 20 and having no children are characteristics in WHO Eligibility Criteria category 2.)

The IUCD can be used in any circumstances by women with any of the following characteristics or health conditions:

- Smoke cigarettes

- Just had an abortion or miscarriage (if no evidence of infection or risk of infection)
- Take antibiotics or anticonvulsants
- Are fat or thin
- Are breastfeeding
- Benign breast disease
- Breast cancer
- Headaches
- High blood pressure
- Irregular vaginal bleeding (after evaluation)
- Blood clotting problems
- Varicose veins
- Heart disease (disease involving heart valves may require treatment with antibiotics before IUCD insertion)
- History of stroke
- Diabetes
- Liver or gall bladder disease
- Malaria
- Thyroid disease
- Epilepsy
- Non-pelvic tuberculosis
- Past ectopic pregnancy
- Past pelvic surgery

Correcting Misperceptions

Intrauterine devices:

- Are not directly associated with PID.
- Do not increase the risk of contracting STIs, including HIV.
- Do not increase the risk of miscarriage when a woman becomes pregnant after the IUCD is removed.
- Do not make women infertile.
- Do not cause birth defects.
- Do not cause cancer.
- Do not move to the heart or brain.
- Do not cause discomfort or pain for the woman during sex.
- Substantially reduce the risk of ectopic pregnancy.

Screening Questions for Pelvic Examination before IUCD Insertion

For performing the pelvic examination, the questions below help check for signs of conditions that would rule out IUCD insertion. If the answer to all of the questions is “no”, then the client can have an IUCD inserted. If the answer to any question is “yes”, do not insert an IUCD.

For questions 1 through 5, if the answer is “yes”, refer for diagnosis and treatment as appropriate. Help the woman choose another method and counsel her about condom use if she faces any risk of STIs. Give her condoms, if possible. If STI or PID is confirmed and she still wants an IUCD, it may be inserted as soon as she finishes treatment, if she is not at risk for re-infection before insertion.

- Is there any type of ulcer on the vulva, vagina, or cervix?
 - Possible STI.
- Does the client feel pain in her lower abdomen when you move the cervix?
 - Possible PID.
- Is there tenderness in the uterus, ovaries, or fallopian tubes (adnexal tenderness)?
 - Possible PID.
- Is there a purulent cervical discharge?
 - Possible STI or PID.
- Does the cervix bleed easily when touched?
 - Possible STI or cervical cancer.
- Is there an anatomical abnormality of the uterine cavity that will prevent correct IUCD insertion?
 - If an anatomical abnormality distorts the uterine cavity, proper IUCD placement may not be possible. Help the woman choose another method.
- Were you unable to determine the size and/or position of the uterus?
 - Determining the size and position of the uterus before IUCD insertion is essential to ensure high placement of the IUCD and to minimize risk of perforation. If size and position cannot be determined, do not insert an IUCD. Help the woman choose another method.

When to Start

IMPORTANT: In many cases, a woman can start the IUCD at any time it is reasonably certain she is not pregnant.

Having Menstrual Cycles/Any Time of the Month

If she is starting within 12 days after the start of her monthly bleeding, there is no need for a backup method. If it is more than 12 days after the start of her

monthly bleeding, she can have the IUCD inserted at any time it is reasonably certain she is not pregnant; there is no need for a backup method.

Switching from Another Method

The client can switch from another method immediately, if she has been using the method consistently and correctly or if it is otherwise reasonably certain she is not pregnant. There is no need to wait for her next monthly bleeding and no need for a backup method.

If she is switching from injectables, she can have the IUCD inserted when the next injection would have been given; there is no need for a backup method.

Soon after Childbirth

She can have an IUCD inserted at any time within 48 hours after giving birth (requires a provider with specific training in postpartum insertion). If it is more than 48 hours after the woman gave birth, delay IUCD insertion until 4 weeks or more after childbirth.

Fully or Nearly Fully Breastfeeding

Less than 6 months after giving birth if her monthly bleeding has not returned, she can have the IUCD inserted at any time between 4 weeks and 6 months after giving birth. There is no need for a backup method. If her monthly bleeding has returned, she can have the IUCD inserted as advised for women having menstrual cycles (see above).

More than 6 months after giving birth, if her monthly bleeding has not returned, she can have the IUCD inserted at any time it is reasonably certain she is not pregnant. There is no need for a backup method. If her monthly bleeding has returned, she can have the IUCD inserted as advised for women having menstrual cycles (see above).

Partially Breastfeeding or Not Breastfeeding

More than 4 weeks after giving birth, if her monthly bleeding has not returned, she can have the IUCD inserted *if it can be determined that she is not pregnant*. No need for a backup method. If her monthly bleeding has returned, she can have the IUCD inserted as advised for women having menstrual cycles.

No Monthly Bleeding (not related to childbirth or breastfeeding)

She can have an IUCD inserted at any time *if it can be determined that she is not pregnant*. No need for a backup method.

After Miscarriage or Abortion

She can have an IUCD inserted immediately, if within 12 days after first- or second-trimester abortion or miscarriage and if no infection is present. There is no need for a backup method.

If it is more than 12 days after first- or second-trimester miscarriage or abortion and no infection is present, she can have the IUCD inserted at any time it is reasonably certain she is not pregnant. There is no need for a backup method.

If infection is present, treat or refer and help the client choose another method. If she still wants the IUCD, it can be inserted after the infection has completely cleared up. IUCD insertion after second-trimester abortion or miscarriage requires specific training. If not specifically trained, delay insertion until at least 4 weeks after miscarriage or abortion.

When to Start Emergency Contraception

Start it within 5 days after unprotected sex. When the time of ovulation can be estimated, the woman can have an IUCD inserted up to 5 days after ovulation. Sometimes this may be more than 5 days after unprotected sex.

After Taking Emergency Contraceptive Pills (ECPs)

The IUCD can be inserted on the same day that she takes the ECPs; there is no need for a backup method.

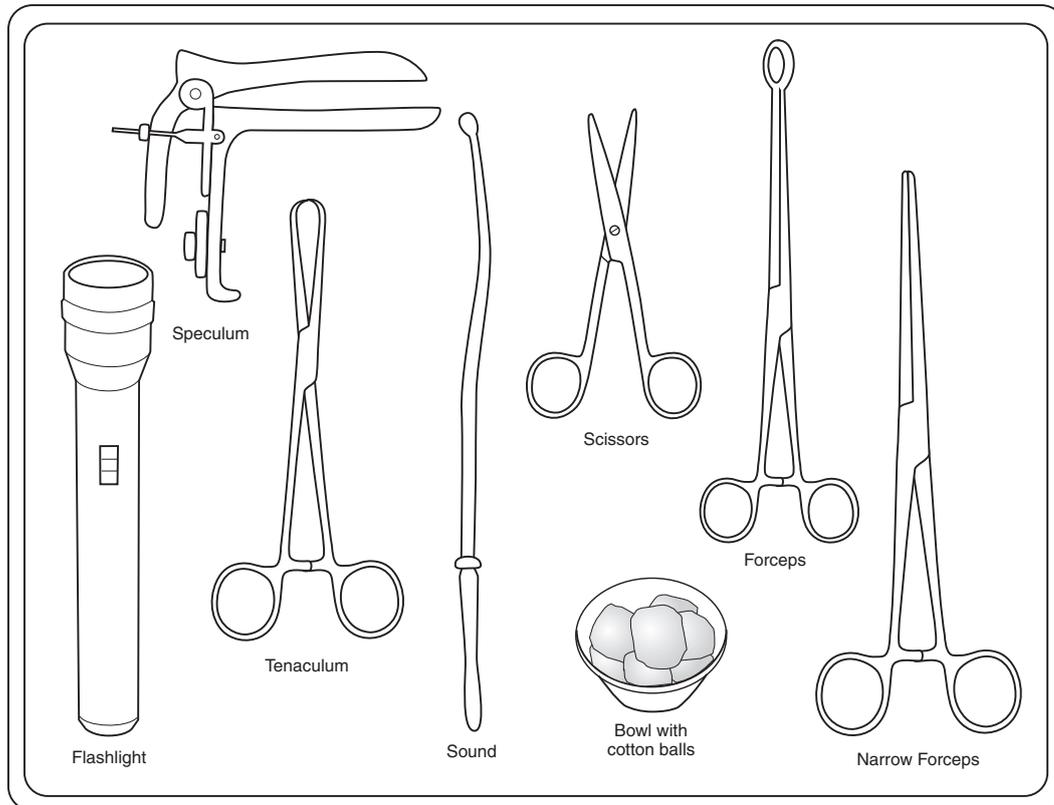
Instruments and Equipment Required for IUCD Insertion and Removal

Following is the list of equipment and instruments required for IUCD insertion. All of the instruments must be either sterilized or high-level disinfected before use:

Table 10-1. Instruments and Equipment Required for IUCD Insertion and Removal

Instruments/Equipment	Quantity	Instruments/Equipment	Quantity
Cheatle forceps	1	Container for cheatle forceps	1
Sponge forceps	1	Covered tray for sterilized instruments	1
Tenaculum	1	Covered jar for cotton swabs	1
Bivalve speculum	1	Bowl for antiseptic solution	1
Uterine sound	1	Kidney tray for used instruments	1
Artery forceps	1	Autoclave or boiler for sterilization or high-level disinfection of instruments	1
Scissors, disposable gloves, cotton swabs	1/As required	P/V lamp, torch/emergency light	1
IUCD insertion table	1	Mackintosh	1

Figure 10-1. Instruments and Equipment Required for IUCD Insertion and Removal



Source: Bluestone J, Chase R, and Lu ER. 2006. *IUD Guidelines for Family Planning Service Programs*. Jhpiego: Baltimore, Maryland.

IUCD Insertion Technique

A woman who has chosen the IUCD needs to know what will happen during insertion. The following description can help explain the procedure to her. Learning IUCD insertion requires training and practice under direct supervision. Therefore, the steps below are only a summary of the process and should not be considered detailed instructions for insertion:

1. The provider conducts a pelvic examination to assess eligibility (see “Screening Questions for Pelvic Examination before IUCD Insertion” above). The provider first performs the bimanual examination and then inserts a speculum into the vagina to inspect the cervix.
2. The provider cleans the cervix and vagina with appropriate antiseptic.
3. The provider slowly inserts the tenaculum through the speculum and closes the tenaculum just enough to gently hold the cervix and uterus steady.
4. The provider slowly and gently passes the uterine sound through the cervix to measure the depth and position of the uterus.
5. The provider loads the IUCD into the inserter using the no-touch technique.
6. Using the no-touch technique, the provider slowly and gently inserts the IUCD and removes the inserter. The provider cuts the strings of the IUCD, leaving about 3 cm hanging out of the cervix.

7. After the insertion, the woman rests. She remains on the examination table until she feels ready to get dressed.

Postpartum Insertion

Only providers who have special training should insert IUCDs after childbirth. Proper insertion technique is important to reduce the risk of expulsion. An IUCD can be inserted immediately after delivery or up to 48 hours after childbirth.

IUCD Removal Technique

Removing an IUCD is usually simple. It can be done at any time throughout the menstrual cycle. Removal may be somewhat easier during menstruation, when the cervix is dilated. The provider must ensure that proper infection prevention procedures are followed. To remove the IUCD:

- The health care provider pulls the IUCD strings slowly and gently with forceps.
- If removal is not easy, the provider may dilate the cervix using a uterine sound or alligator forceps or refer the client to a specially trained provider.

Side Effects and Management

After IUCD insertion, some clients may have side effects (as mentioned in the section on Post-Procedure Counselling); these are not very serious and usually are resolved within 1–3 months. Most of the time, clients need only reassurance and simple treatment. However, if the symptoms become severe and persistent, the client may need immediate medical attention, and the IUCD may have to be removed.

Table 10-2. IUCDs: Side Effects and Their Management

Side Effect	Management
Changes in menstrual cycle	
Within 3 months of IUCD insertion	
Irregular bleeding (bleeding at unexpected times that bothers the client)	<ul style="list-style-type: none"> • Reassure her that many women using IUCDs experience irregular bleeding. It is not harmful and usually lessens or stops after the first several months of use. • For modest, short-term relief she can try NSAIDs such as ibuprofen (400 mg) or indomethacin (25 mg) two times daily after meals for 5 days, beginning when irregular bleeding starts. • If irregular bleeding continues, or starts after several months of normal bleeding, or you suspect that something may be wrong for other reasons, consider underlying conditions unrelated to method use (see “Unexplained vaginal bleeding” below).

Side Effect	Management
<p>Heavy or prolonged bleeding</p>	<ul style="list-style-type: none"> • Reassure her that many women using IUCDs experience heavy or prolonged bleeding. It is generally not harmful and usually lessens or stops after the first several months of use. • For modest, short-term relief she can try (one at a time): <ul style="list-style-type: none"> – Tranexamic acid (1,500 mg) three times daily for 3 days, then 1,000 mg once daily for 2 days, beginning when heavy bleeding starts. – Nonsteroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen (400 mg) or indomethacin (25 mg) two times daily after meals for 5 days, beginning when heavy bleeding starts. Other NSAIDs—except aspirin—also may provide some relief of heavy or prolonged bleeding. • Provide iron tablets if possible and tell her it is important for her to eat foods containing iron. If heavy or prolonged bleeding continues, or starts after several months of normal bleeding or long after the IUCD was inserted, or if you suspect that something may be wrong for other reasons, consider underlying conditions unrelated to method use.
<p>Cramping and pain</p>	<ul style="list-style-type: none"> • She can expect some cramping and pain for the first day or two after IUCD insertion. • Explain that cramping also is common in the first 3-6 months of IUCD use, particularly during monthly bleeding. Generally, this is not harmful and usually decreases over time. • Suggest aspirin (325-650 mg), ibuprofen (200-400 mg), paracetamol (325-1,000 mg), or other pain reliever. If she also has heavy or prolonged bleeding, aspirin should not be used because it may increase bleeding. • If cramping continues and occurs outside of monthly bleeding: <ul style="list-style-type: none"> – Evaluate for underlying health conditions and treat or refer. • If no underlying condition is found and cramping is severe, discuss removing the IUCD: <ul style="list-style-type: none"> – If the removed IUCD looks distorted, or if difficulties during removal suggest that the IUCD was out of proper position, explain to the client that she can have a new IUCD that may cause less cramping.

Side Effect	Management
Possible anaemia	<ul style="list-style-type: none"> • The copper-bearing IUCD may contribute to anaemia if a woman already has low iron blood stores before insertion and the IUCD causes heavier monthly bleeding. • Pay special attention to IUCD users with any of the following signs and symptoms: <ul style="list-style-type: none"> – Inside of eyelids or underneath fingernails looks pale, pale skin, fatigue or weakness, dizziness, irritability, headache, ringing in the ears, sore tongue, and brittle nails. – If blood testing is available, haemoglobin less than 9 g/dl or haematocrit less than 30. • Provide iron tablets if possible. • Tell her it is important to eat foods containing iron, such as meat and poultry (especially beef and chicken liver), fish, green leafy vegetables, and legumes (beans, bean curd, lentils, and peas).
Partner can feel IUCD strings during sex	<ul style="list-style-type: none"> • Explain that this happens sometimes when strings are cut too short. • If partner finds the strings bothersome, describe available options: <ul style="list-style-type: none"> – Strings can be cut even shorter so they are not coming out of the cervical canal. Her partner will not feel the strings, but the woman will no longer be able to check her IUCD strings. – If the woman wants to be able to check her IUCD strings, the IUCD can be removed and a new one inserted. (To avoid discomfort, the strings should be cut so that 3 cm hang out of the cervix.)

Side Effect	Management
<p>Severe pain in lower abdomen (suspected PID)</p>	<ul style="list-style-type: none"> • Some common signs and symptoms of PID often also occur with other abdominal conditions, such as ectopic pregnancy. If ectopic pregnancy is ruled out, assess for PID. • If possible, do abdominal and pelvic examinations (see signs and symptoms of serious health conditions below). • If a pelvic examination is not possible, and she has a combination of the following signs and symptoms in addition to lower abdominal pain, suspect PID: <ul style="list-style-type: none"> - Unusual vaginal discharge - Fever or chills - Pain during sex or urination - Bleeding after sex or between monthly bleeding - Nausea and vomiting - A tender pelvic mass - Pain when the abdomen is gently pressed (direct abdominal tenderness) or when gently pressed and then suddenly released (rebound abdominal tenderness) • Treat PID or immediately refer for treatment. <p>Because of the serious consequences of PID, health care providers should treat all suspected cases, based on the signs and symptoms:</p> <ul style="list-style-type: none"> • Treatment should be started as soon as possible. Treat for gonorrhoea, chlamydia, and anaerobic bacterial infections. • Counsel the client about condom use and, if possible, give her condoms. • There is no need to remove the IUCD if she wants to continue using it. • If she wants the IUCD removed, take it out after starting antibiotic treatment.

Side Effect	Management
Severe pain in lower abdomen (suspected ectopic pregnancy)	<p>Many conditions can cause severe abdominal pain. Be particularly alert for additional signs or symptoms of ectopic pregnancy, which is rare but can be life-threatening.</p> <p>In the early stages of ectopic pregnancy, symptoms may be absent or mild, but eventually they will become severe. A combination of these signs or symptoms should increase suspicion of ectopic pregnancy:</p> <ul style="list-style-type: none"> • Unusual abdominal pain or tenderness • Abnormal vaginal bleeding or no monthly bleeding, especially if this is a change from the woman's usual bleeding pattern • Light-headedness or dizziness • Fainting <p>If ectopic pregnancy or other serious health condition is suspected, refer at once for immediate diagnosis and care. If the client does not have these additional symptoms or signs, assess for PID.</p>
Suspected uterine puncturing (perforation)	<p>If puncturing is suspected at the time of insertion or sounding of the uterus, stop the procedure immediately (and remove the IUCD if inserted). Observe the client in the clinic carefully:</p> <ul style="list-style-type: none"> • For the first hour, keep the woman at bed rest and check her vital signs (blood pressure, pulse, respiration, and temperature) every 5-10 minutes. • If the woman remains stable after 1 hour, check for signs of intra-abdominal bleeding, such as low haematocrit or haemoglobin, if possible, and her vital signs. Observe for several more hours. If she has no signs or symptoms, she can be sent home, but she should avoid sex for 2 weeks. Help her choose another method. • If she has a rapid pulse and falling blood pressure, or new pain or increasing pain around the uterus, refer her to a higher level of care. <p>If uterine perforation is suspected within 6 weeks after insertion or if it is suspected later and is causing symptoms, refer the client for evaluation to a clinician experienced at removing such IUCDs.</p>
IUCD partially comes out (partial expulsion)	<p>If the IUCD partially comes out, remove the IUCD. Discuss with the client whether she wants another IUCD or a different method. If she wants another IUCD, she can have one inserted at any time it is reasonably certain she is not pregnant. If the client does not want to continue using an IUCD, help her choose another method.</p>

Side Effect	Management
IUCD completely comes out (complete expulsion)	If the client reports that the IUCD came out, discuss with her whether she wants another IUCD or a different method. If she wants another IUCD, she can have one inserted at any time it is reasonably certain she is not pregnant. If complete expulsion is suspected and the client does not know whether the IUCD came out, refer for x-ray or ultrasound to assess whether the IUCD might have moved to the abdominal cavity. Give her a backup method to use in the meantime.
Missing strings (suggesting possible pregnancy, uterine perforation, or expulsion)	<ul style="list-style-type: none"> • Ask the client: <ul style="list-style-type: none"> – Whether and when she saw the IUCD come out – When she last felt the strings – When she had her last monthly bleeding – If she has any symptoms of pregnancy – If she has used a backup method since she noticed the strings were missing • Always start with minor and safe procedures and be gentle. Check for the strings in the folds of the cervical canal with forceps. About half of missing IUCD strings can be found in the cervical canal. • If strings cannot be located in the cervical canal, either they have gone up into the uterus or the IUCD has been expelled unnoticed. Rule out pregnancy before attempting more invasive procedures. Refer for evaluation. Give her a backup method to use in the meantime, in case the IUCD came out.
New problems that may require switching methods May or may not be due to the method	
Unexplained vaginal bleeding (that suggests a medical condition not related to the method)	<ul style="list-style-type: none"> • Refer or evaluate by history or pelvic examination. Diagnose and treat as appropriate. • She can continue using the IUCD while her condition is being evaluated. • If bleeding is caused by STI or PID, she can continue using the IUCD during treatment.

Side Effect	Management
Suspected pregnancy	<ul style="list-style-type: none"> • Assess for pregnancy, including ectopic pregnancy. • Explain that an IUCD in the uterus during pregnancy increases the risk of preterm delivery or miscarriage, including infected (septic) miscarriage during the first or second trimester, which can be life-threatening. • If she continues the pregnancy: <ul style="list-style-type: none"> – Advise her that it is best to remove the IUCD. – Explain the risks of pregnancy with an IUCD in place. • Early removal of the IUCD reduces these risks, although the removal procedure itself involves a small risk of miscarriage. • If she agrees to removal, gently remove the IUCD or refer for removal. • Explain that she should return at once if she develops any signs of miscarriage or septic miscarriage (vaginal bleeding, cramping, pain, abnormal vaginal discharge, or fever). • If she chooses to keep the IUCD, her pregnancy should be followed closely by a nurse or doctor. She should see a nurse or doctor at once if she develops any signs of septic miscarriage. • If the IUCD strings cannot be found in the cervical canal and the IUCD cannot be safely retrieved, refer for ultrasound, if possible, to determine whether the IUCD is still in the uterus. If it is, or if ultrasound is not available, her pregnancy should be followed closely. She should seek care at once if she develops any signs of septic miscarriage.

Counselling

If the client chooses an IUCD:

1. Screen the client carefully to make sure there is no medical condition that would be a problem.
2. Explain potential side effects and make sure that each is fully understood. Stress that most can be managed and make sure she knows how to contact you if she has problems.

Pre-Insertion Counseling (Examination/Procedure Area):

1. Inform the client about required physical and pelvic examinations.
2. Describe the insertion procedure and what she should expect during the insertion and afterward.

Post-Insertion Education:

1. Remind the client what type of IUCD she has and for how long it is effective.
2. Provide a client follow-up card and inform the client when to return for the follow-up visit.
3. Remind the client of warning signs: PAINS (Period late or heavy, Abdominal pain, signs of Infection, Not feeling well, String changes or problems).
4. Review common side effects (menstrual changes) or problems and what to do if they occur.
5. Remind the client of the need to use condoms in addition if she is at risk of sexually transmitted infections.
6. Assure the client she can return to the same clinic to receive advice or medical attention and, if desired, to have the IUCD removed.
7. Ask the client to repeat the instructions.
8. Answer the client's questions.
9. Observe the client for at least 15–20 minutes and ask how she feels before sending her home.

Counselling (removal):

1. Greet the client respectfully and with kindness.
2. Establish the purpose of the visit and answer any questions.
3. Ask the client her reason for removal and answer any questions.
4. Ask the client about her reproductive goals (Does she want to continue spacing or limiting births?) and need for protection against genital tract infections and other STIs.
5. Describe the removal procedure and what she should expect during the removal and afterward.
6. Discuss what to do if the client experiences any problems (e.g., prolonged bleeding or abdominal or pelvic pain).
7. Ask the client to repeat instructions.
8. Answer any questions.
9. If the client wants to continue spacing or limiting births using another method, review general and method-specific information about family planning methods in which she is interested.
10. Help client obtain a new contraceptive method or provide a temporary (barrier) method until the method of choice can be started.
11. Observe client for at least 15–20 minutes and ask how she feels before sending her home.

Rarely, allergic skin reaction may develop in a woman using the copper IUCD. In such a case, she should go to a doctor, who may advise removal of the IUCD, and will help her choose another contraceptive method.

Follow-Up

Follow-up care and support of the client's decision to use an IUCD is very important to keep her satisfied and reassured, especially during the first 3 months when side effects are more common.

Explain the follow-up schedule:

- The client can come after her first menses, but not later than 3 months, for her first check-up.
- If she has no complaints subsequently, she can come to the clinic whenever any problem arises.

During the first follow-up visit:

- Ask the client if she has any complaints.
- Check for anaemia if she complains of excessive or prolonged bleeding.
- Do a pelvic examination to check if:
 - IUCD threads are visible.
 - There are any signs of infection.

Recordkeeping

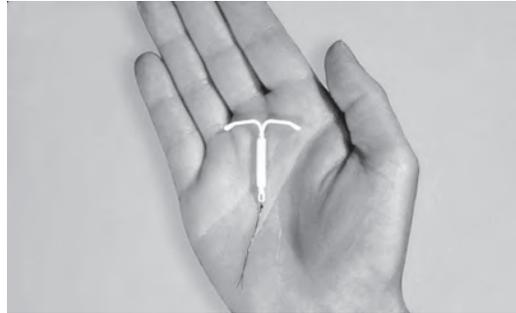
The minimum record list below should be maintained for proper follow-up of IUCD clients:

- Daily clinic register to register the client.
- Client record card (CRC) to record relevant information about the client, e.g., age, parity, menstrual history, and findings of physical and pelvic examinations. Keep a follow-up record on the reverse side of the CRC.
- A client card, to be provided to the client after particulars about the contraceptive are given and the follow-up date are recorded.

Hormone-Containing Intrauterine Contraceptive Devices

Levonorgestrel Intrauterine System (Mirena™)

Levonorgestrel-containing IUCDs have been available in more than 50 countries for over 10 years. Approximately 2 million women have used levonorgestrel-containing IUCDs. In December 2000, the U.S. Food and Drug Administration approved the use of Mirena.



The Levonorgestrel Intrauterine System (LNG-IUS or LNG-IUCD) is a T-shaped polyethylene device. The frame is 32 mm in both the horizontal and the vertical directions. The cylindrical reservoir around the vertical stem contains a mixture of silicone and 52 mg of levonorgestrel, a progestin widely used in implants, oral contraceptives, and vaginal rings. Twenty-five mcg of levonorgestrel are released every day. A monofilament removal thread is attached to a loop at the end of the vertical stem. Mirena is packaged within a newly designed inserter, which is discarded after use. Mirena has an effective life of 5 years. Like other copper-bearing IUCDs, Mirena can be inserted within the first 7 days of onset of menstruation or if pregnancy can be ruled out.

Mode of Action

Levonorgestrel is responsible for the contraceptive effect of this IUCD. It has the following three mechanisms of action, which enable it to be highly effective for contraception:

- Thins the uterine lining
- Thickens the cervical mucus
- Inhibits sperm mobility

Effectiveness

- It is very effective for 5 years.
- It is one of the most effective and long-lasting methods: There is less than 1 pregnancy per 100 women using an LNG-IUCD over the first year (2 per 1,000 women). This means that 998 of every 1,000 women using LNG-IUCDs will not become pregnant.
- A small risk of pregnancy remains beyond the first year of use and continues as long as the woman is using the LNG-IUCD. Over 5 years of LNG-IUCD use, there is less than 1 pregnancy per 100 women (5–8 per 1,000 women). It is approved for up to 5 years of use.

- Return of fertility after the LNG-IUCD is removed: No delay
- Protection against sexually transmitted infections (STIs): None

Advantages and Limitations

With few exceptions, the mechanism of action, indications, precautions, side effects, complications, and time of insertion are the same as for copper IUCDs.

Advantages

Mirena has many advantages over copper IUCDs:

- It is highly effective, having a first-year failure rate of 0.1 percent and 5-year cumulative failure rate of 0.7 percent.
- There is a marked reduction in menstrual blood loss and the systemic level of hormone is very low compared to the other progesterone-only methods.
- Once inserted, it is effective for 5 years and fertility returns rapidly on discontinuation. Eighty percent of the women intending to get pregnant will become pregnant within 12 months of discontinuing Mirena.
- Mirena has many non-contraceptive benefits. It has a beneficial effect on menorrhagia and dysmenorrhoea and reduces the risk of PID. It also reduces the risk of endometrial cancer by 50 percent.
- Other possible side effects are almost the same as those of Copper T 380 A or Multiload.

Limitations

- Women's access to this type of IUCD may be limited.
- The cost of having the device inserted may deter some women from obtaining it.

Who Can Use It?

Nearly all women can use the LNG-IUCD safely and effectively.

Side Effects and Management

Side Effects

Some users report the following:

- Changes in bleeding patterns, including:
 - Lighter bleeding and fewer days of bleeding
 - Infrequent bleeding
 - Irregular bleeding
 - No monthly bleeding
 - Prolonged bleeding

- Acne
- Headaches
- Breast tenderness or pain
- Nausea
- Weight gain
- Dizziness
- Mood changes
- Other possible physical changes:
 - Ovarian cysts

Complications

Rare: Puncturing (perforation) of the wall of the uterus by the LNG-IUCD or an instrument used for insertion. Usually heals without treatment.

Very rare: Miscarriage, preterm birth, or infection in the very rare case that the woman becomes pregnant with the LNG-IUCD in place.

Client Assessment as per World Health Organization Medical Eligibility Criteria for Levonorgestrel IUCDs

Ask the client the Medical Eligibility Criteria questions for copper-bearing IUCDs. Also ask the questions below about known medical conditions. If she answers “no” to all of the questions here and for the copper-bearing IUCD, then she can have an LNG-IUCD inserted if she wants. If she answers “yes” to a question, follow the instructions. In some cases she can still have an LNG-IUCD inserted.

1. Did you give birth less than 4 weeks ago?
If no, she can have the LNG-IUCD inserted as soon as 4 weeks after childbirth.
2. Do you now have a blood clot in the deep veins of your legs or lungs?
If she reports current blood clot (except superficial clots), help her choose a method without hormones.
3. Do you have severe cirrhosis of the liver, a liver infection, or liver tumour? (Are her eyes or skin unusually yellow? [signs of jaundice])
If she reports serious active liver disease (jaundice, active hepatitis, severe cirrhosis, liver tumour), do not provide the LNG-IUCD. Help her choose a method without hormones.
4. Do you have or have you ever had breast cancer?
Do not insert the LNG-IUCD. Help her choose a method without hormones.

When to Start

IMPORTANT: In many cases a woman can start the LNG-IUCD at any time it is reasonably certain she is not pregnant.

Woman Having Menstrual Cycles or Switching from a Non-Hormonal Method at Any Time of the Month

If she is starting within 7 days after the start of her monthly bleeding, there is no need for a backup method.

If it is more than 7 days after the start of her monthly bleeding, she can have the LNG-IUCD inserted at any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after insertion. Backup methods include abstinence, male and female condoms, spermicides, and withdrawal. Tell her that spermicides and withdrawal are the least effective contraceptive methods. If possible, give her condoms.

Switching from a Hormonal Method

She can switch immediately, if she has been using the method consistently and correctly or if it is otherwise reasonably certain she is not pregnant. No need to wait for her next monthly bleeding. No need for a backup method.

If she is switching from injectables, she can have the LNG-IUCD inserted when the repeat injection would have been given. She will need a backup method for the first 7 days after insertion.

Fully or Nearly Fully Breastfeeding

If it is less than 6 months after she gave birth: If she gave birth less than 4 weeks ago, delay insertion until at least 4 weeks after giving birth. If her monthly bleeding has not returned, she can have the LNG-IUCD inserted any time between 4 weeks and 6 months. There is no need for a backup method. If her monthly bleeding has returned, she can have the LNG-IUCD inserted as advised for women having menstrual cycles.

If it is more than 6 months since she gave birth: If her monthly bleeding has not returned, she can have the LNG-IUCD inserted at any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after insertion. If her monthly bleeding has returned, she can have the LNG-IUCD inserted as advised for women having menstrual cycles.

Partially Breastfeeding or Not Breastfeeding

If it is less than 4 weeks since the woman gave birth, delay LNG-IUCD insertion until at least 4 weeks after giving birth. If it is more than 4 weeks after giving birth, and if her monthly bleeding has not returned, she can have the LNG-IUCD inserted at any time **if it can be determined that she is not pregnant**. She will need a backup method for the first 7 days after insertion. If her monthly bleeding

has returned, she can have the LNG-IUCD inserted as advised for women having menstrual cycles.

No Monthly Bleeding (not related to childbirth or breastfeeding)

It can be inserted at any time **if it can be determined that she is not pregnant**. She will need a backup method for the first 7 days after insertion.

After Miscarriage or Abortion

It can be inserted immediately, if within 7 days after first- or second-trimester abortion or miscarriage and if no infection is present. There is no need for a backup method. If it is more than 7 days after first- or second-trimester miscarriage or abortion and no infection is present, she can have the LNG-IUCD inserted at any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after insertion.

If infection is present, treat or refer and help the client choose another method. If she still wants the LNG-IUCD, it can be inserted after the infection has completely cleared up. LNG-IUCD insertion after second-trimester abortion or miscarriage requires specific training. If a specifically trained provider is not available, delay insertion until at least 4 weeks after miscarriage or abortion.

After Taking Emergency Contraceptive Pills (ECPs)

The LNG-IUCD can be inserted within 7 days after the start of her next monthly bleeding or at any other time it is reasonably certain she is not pregnant. Give her a backup method, or oral contraceptives to start the day after she finishes taking the ECPs, to use until the LNG-IUCD is inserted.

Giving Advice on Side Effects

IMPORTANT: Thorough counselling about bleeding changes must come before IUCD insertion. Counselling about bleeding changes may be the most important help a woman needs to keep using the method.

Describe the Most Common Side Effects

- Changes in bleeding patterns: No monthly bleeding, lighter bleeding, fewer days of bleeding, infrequent or irregular bleeding.
- Acne, headaches, breast tenderness, and pain, and possibly other side effects.

Explain about These Side Effects

- Bleeding changes usually are not signs of illness.
- They usually lessen after the first several months after insertion.
- The client can come back for help if side effects bother her.

IMPLANTS

Introduction

Hormonal implants are inserted under the skin of the woman's upper arm by a minor surgical procedure. They become effective within a short time (24 hours approximately) after insertion and protect the woman from pregnancy for a period of 3–7 years, depending upon their type. At the end of this period, the contraceptive effectiveness markedly decreases, and a pregnancy may occur in the absence of another contraceptive. The implants should, therefore, be removed, which again requires a minor surgical procedure.

Types of Implants

Norplant®-6 Implants

Norplant-6 is a sub-dermal implant consisting of six small capsules containing a progestin hormone, a long-acting and reversible contraceptive method for women. Each capsule is 34 mm long and 2.4 mm wide, and has a silastic tube containing 36 mg of levonorgestrel. The levonorgestrel is released at the rate of approximately 85 mcg per 24 hours during the first few weeks of use, declining over the next 18 months to a constant rate of approximately 30–35 mcg per 24 hours. It is effective for 7 years.



Implanon®

Implanon is a single-rod contraceptive implant (40 mm by 2 mm), which contains 68 mg of etonogestrel (ENG) dispersed in a membrane of ethylene vinyl acetate. Implanon delivers ENG at a dose sufficient to suppress ovulation in every cycle throughout the 3 years of use.



Policy

- Implants will be given to women who need a long-term method.
- Insertion and removal will be carried out only by doctors trained in the procedures.
- Centres staffed by appropriately trained doctors will be designated to provide these contraceptives.
- Implants will not be given to a woman who is pregnant or suspected to be pregnant.
- Implants can be inserted in breastfeeding women who are more than 6 weeks postpartum.
- Implants can be inserted within 3 weeks after delivery in women who are not breastfeeding.
- Implants may be inserted immediately after complete abortion.

Standards

The following standards should be observed:

- All concerned paramedics should be trained in counselling techniques so that the client is able to make an informed choice.
- Implants should be given only to those women who want long-term protection from pregnancy.
- Implants should be removed after their effective period is over, i.e., 3–7 years after insertion.

Mode of Action

- Prevent ovulation.
- Thicken the cervical mucus, making it difficult for sperm to pass through.
- Suppress the endometrium, making it unsuitable for implantation of a fertilized ovum.

Effectiveness

Implants are very effective, i.e., .05 pregnancy occurs per 100 women in first year of use (1 in every 2,000). Over 5 years, 1.6 pregnancies occur per 100 women (1 in every 62). Pregnancy rates have been slightly higher among women weighing more than 70 kilograms (about 150 lbs).

Advantages

- Very effective, even in overweight women.
- Long-term pregnancy protection, but reversible. A single decision can lead to very effective contraception for up to 3–7 years.
- No need to do anything at the time of sexual intercourse.
- Increased sexual enjoyment because no need to worry about pregnancy.
- One-time activity.
- Effective within 24 hours after insertion.
- Fertility returns almost immediately after implants are removed.
- They do not affect the quantity and quality of breast milk.
- No oestrogen side effects.
- Help prevent iron deficiency anaemia.
- Help prevent ectopic pregnancies.
- May help prevent endometrial cancer.
- May make sickle cell crises less frequent and less painful.
- May reduce the risk of PID.

Limitations

- The client cannot start or stop use on her own. Capsules must be inserted and removed by a specially trained health care provider.
- Minor surgical procedures are required to insert and remove capsules. Some women may not want anything inserted in their arms or may be bothered that implants may be seen or felt under the skin.
- Discomfort for several hours to 1 day after insertion for some women. Removal is sometimes painful and often more difficult than insertion.
- In very rare instances when pregnancy occurs, as many as one in every six pregnancies is ectopic.
- Do not protect against sexually transmitted infection (STIs), including HIV/AIDS.

Client Assessment as per World Health Organization Medical Eligibility Criteria for Implants

Ask the client the questions given below. If she answers “no” to all of the questions, then she can use implants if she wants. If the client answers “yes” to a question below, follow the instructions.

1. Is the client breastfeeding a baby less than 6 weeks old?
Start using implants beginning 6 weeks after childbirth. If a client is fully or almost fully breastfeeding, she is protected from pregnancy for 6 months after childbirth or until her menstrual period returns, whichever comes first. The client must begin contraception at once to avoid pregnancy. Encourage her to continue breastfeeding.
2. Does the client have serious problems with her blood vessels? If so, what problems?
Do not provide implants if she reports blood clots (except superficial clots). Help the client choose another effective method.
3. Does the client have jaundice, cirrhosis of the liver, a liver infection, or tumour?
Perform a physical examination or refer. If the client has serious active liver disease (jaundice, painful or enlarged liver, viral hepatitis, liver tumour), do not insert implants. Refer for care. Help her choose a method without hormones.
4. Does the client have or has she ever had breast cancer?
Do not provide implants. Help the client choose a method without hormones.
5. Does the client have vaginal bleeding that is unusual for her?
If the client is suffering from unexplained vaginal bleeding that suggests pregnancy or an underlying medical condition, do not provide implants. Assess and treat any underlying condition, as appropriate, or refer. Help the client choose a method without hormones to use until the problem is assessed. Then the client can start using implants.
6. Is the client taking medicine for seizures? Is she taking rifampicin or griseofulvin?
If the client is taking phenytoin, carbamazepine, barbiturates, or primidone for seizures, or rifampicin or griseofulvin, provide condoms to use along with implants if she is on short-term treatment. If the client is on long-term treatment, help the client choose another effective method.
7. Does the client think she is pregnant?
Ask if the client is pregnant. If she is in doubt, give her condoms to use until reasonably sure that she is not pregnant. Then she can start implants.
Be sure to explain the health benefits, risks, and side effects of the method that the client will use. Also, point out any conditions that would make the method inadvisable when relevant to the client.

Indications

Nearly all women can use implants safely and effectively, including women who:

- Breastfeed
- Smoke cigarettes
- Are of any age

- Are 6 weeks after childbirth
- Are overweight or underweight
- Just had abortion or miscarriage
- Have benign breast disease
- Have controlled hypertension
- Have iron deficiency anaemia
- Have varicose veins
- Have valvular heart disease
- Have controlled diabetes
- Have thyroid disease
- Have irregular or painful menstrual periods
- Have pelvic inflammatory disease (PID)
- Have benign ovarian tumours or uterine fibroids
- Have endometriosis
- Have STIs
- Have tuberculosis (unless taking rifampicin)

When to Start

- Any time it is reasonably certain that the client is not pregnant. If she is not at risk of pregnancy (for example, has not had sex since her last menstrual period), she may start using implants at any time she wants.
- If inserted during the first 7 days after menstrual bleeding starts, no backup method is needed for extra protection.
- If she is starting on or after day eight of her menstrual period, she should use condoms or spermicide or avoid sex for the next 7 days after insertion.
- Immediately, or in the first 7 days after first- or second-trimester miscarriage or abortion.

Switching from a non-hormonal method:

- If it is more than 7 days after the start of her monthly bleeding (more than 5 days for Implanon), she can have implants inserted at any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after insertion.
- If she is switching from an IUCD, she can have implants inserted immediately.

Switching from a hormonal method:

- Immediately, if she has been using the hormonal method consistently and correctly or if it is otherwise reasonably certain she is not pregnant. No need to wait for her next monthly bleeding. No need for a backup method.
- If she is switching from injectables, she can have implants inserted when the repeat injection would have been given. No need for a backup method.

Equipment and Supplies Needed for Norplant Insertion

1. Local anaesthetic
2. Diluent
3. Disposable syringe
4. Antiseptic
5. Surgical gloves
6. Roll bandage
7. Saniplast
8. Antibiotics
9. Analgesics
10. Implant kit:
 - Surgical knife handle and blade
 - Trocar and cannula
 - Kidney tray
 - Bowl
 - Mosquito forceps
 - Dissecting forceps
 - Sponge-holding forceps
 - Norplant sheet
11. Autoclave drum

Technique for Insertion of Norplant-6 Rods

Norplant implants insertion requires training and practice under direct supervision. Therefore, the following description should be considered a summary of the procedure rather than detailed instructions on how to insert the implants. All service providers should be able to tell their clients about insertion of Norplant implants:

1. The health care provider (trained doctor) uses proper infection prevention procedures.

2. The client receives an injection of local anaesthetic under the skin to prevent pain in her arm.
3. The health care provider makes a small incision in the skin on the inside of the upper arm. The health care provider inserts the capsules just under the skin. This makes the capsules easier to remove later.
4. After all six capsules are inserted, the health care provider closes the incision with an adhesive bandage. Stitches are not needed. The incision is covered with sterilized gauze and wrapped with the bandage.

Technique for Removal of Norplant-6 Rods

- The position of the client and aseptic procedures should be the same as for insertion.
- Locate the implant by palpation; mark the position with a ballpoint pen, if possible.
- Inject a small amount of a local anaesthetic under the proximal ends of the implants.
- Make a 4 mm incision with the scalpel close to the ends of the implants. Do not make a large incision.
- Using your fingers, push the implants gently towards the incision. When the tip of the implant is visible, grasp it with the mosquito forceps. Use the scalpel very gently to remove the tissue from the implant.
- Remove the implant from the incision with the second forceps.
- Count the implants to make sure that all six have been removed, and show these to the client.
- Cover the incision with a sterilized gauze and wrap with a bandage.

Technique for Insertion of Implanon Rod-1

Insertion takes about 10 minutes. Bruising or slight bleeding at the insertion site is normal and common during the first few days after insertion.

- Implanon is inserted at the inner side of the upper arm (the arm that the woman does not write with), with a specially designed applicator.
- The provider (trained doctor) uses proper infection prevention procedures.
- The woman receives an injection of local anaesthetic under the skin of her arm to prevent pain while the implant is being inserted. She stays fully awake throughout the procedure.
- The skin is stretched and the needle is inserted directly under the skin. Once the tip is under the skin, the needle is completely inserted in a movement parallel to the skin.

- After the Implanon is inserted, the provider applies sterile gauze with a pressure bandage to minimize bruising.
- Stitches are not needed. The incision is covered with a dry, sterilized gauze and the arm is wrapped with a bandage.

Technique for Removal of Implanon Rod-1

The removal technique is similar to that for Norplant-6 rods given above.

Newer Implants

JADELLE® Implants

General Information

Jadelle is an implant system that provides effective, long-acting, reversible contraception for women. It contains synthetic progestin. Two thin, flexible rods made of silicone tubing and filled with levonorgestrel are inserted in a woman's upper arm. The cumulative pregnancy rate in clinical trials was 0.3 percent for 3 years and 1.1 percent for 5 years. Jadelle has a lower failure rate than the pill and most IUCDs. Its efficacy is comparable to that of surgical sterilization.



Jadelle should not be used by women who are pregnant or who have any of these contraindications: active thrombophlebitis or thromboembolic disorders, such as blood clots in the legs, lungs, or eyes; undiagnosed abnormal genital bleeding; acute liver disease; or known or suspected breast cancer. Women who have had previous blood clots or other thromboembolic disorders should consult with their health care providers about whether to use the method.

Because Jadelle has two rods, it is easier to insert and remove than Norplant. The rods are inserted under the skin of the inner side of the upper arm in a minor surgical procedure, a local anaesthetic is injected, and the clinician makes a small incision about 3 mm long, using either the disposable inserter or the trocar. The rods are placed subdermally in the shape of a V opening towards the shoulder. The rods should be inserted by health care providers who have received training in the procedure. Since the incision is small, most women do not have a noticeable scar.

Side Effects and Management

Most women using implants have some changes in their menstrual pattern such as spotting or irregular bleeding in between periods. Some may have scanty menses or amenorrhoea after about a year of use. Assure the client that these menstrual changes will not harm her and will settle in a few months.

Use the following guidelines to manage problems with implants.

Table 11-1. Hormonal Implants: Side Effects and Their Management

Side Effects	Management
Pain in the arm for 1-2 days	<ul style="list-style-type: none"> Reassure client. Give her Tab paracetamol.
Pain continues after 2-3 days with swelling of the insertion site	Give her appropriate antibiotic and analgesic and follow her.
Menstrual changes: Spotting/slight bleeding between period	<ul style="list-style-type: none"> Reassure the client that it will be resolved on its own. Advise ibuprofen up to 800 mg (max) or ponstan 500 mg three times daily after meal for 5 days. Give iron tab 1x3 for 1 month, or Give COC pills 1 daily for 21 days. If this does not help, provide: <ul style="list-style-type: none"> 50 mcg of ethinyl estradiol daily for 21 days. If bleeding continues to be heavy and the client is worried, remove the implants.
Amenorrhoea after scanty menses	Reassure the client that it will not harm her (as it does not harm her when she is pregnant).
Amenorrhoea after regular cycles	<ul style="list-style-type: none"> Do a pregnancy test. If not pregnant, reassure the client. If pregnant, remove the implants.
Rare side effects	
Weight gain	
Less than 2 kg in 3 months	<ul style="list-style-type: none"> Reassure the client. Ask her to reduce food intake, especially fats and sweets.
More than 2 kg in 3 months	Watch her weight for another 2-3 months on a reduced diet.
If client continues to gain weight	Remove the implants.
Depression or other mood changes	Refer client to a doctor.
Infection at the insertion site (pain, heat, and redness) but no abscess	<ul style="list-style-type: none"> Do not remove the implants. Clean the infected area with soap and water or antiseptic. Give an oral antibiotic for 7 days and ask the client to return in 1 week. If still not better, remove the implants or refer for removal.
Infection with abscess	<ul style="list-style-type: none"> If significant skin infection is involved, give oral antibiotic for 7 days. Prepare the infected area with antiseptic, make an incision, and drain the pus. Remove the implants or refer for removal. Treat the wound.

Method-Specific Counselling

Pre-Procedure Counselling

After greeting the client and making her comfortable, ask questions to confirm that she needs a contraceptive for long-term use.

- Show the package containing the implants.
- Give the following information regarding insertion and removal of the implants:
 - The incision for insertion of the capsules is very small.
 - She will not feel any pain because a local anaesthetic will be used.
 - The procedure is performed by a trained doctor and takes about 10 minutes.
 - Removal is also done by a trained doctor and takes a little more time than insertion.
 - Explain how the implants act as a contraceptive.
 - Tell about their advantages and limitations.
- Listen to her queries and answer them to her satisfaction.
- Dispel doubts or fears that she may have by discussing them and providing relevant information.

Post-Procedure Counselling

As detailed below, give all information to the client regarding the follow-up schedule, possible side effects and their management, warning signs, and the importance of getting the implants removed after the effective period is over.

Explain the Follow-Up Schedule

- Ask the client to come for a check-up after 1 month and for removal of the implants at the end of their effective lifespan.
- Tell her that she can come at any time she feels there is a problem, or if she has any questions.
- Explain that it is important that she come to the same clinic for follow-up.
- Explain that implants can be removed at any time she wants.

Explain Warning Signs

Tell the client to come to the clinic as soon as possible if any of the following problems occur:

- D=** Delay in monthly periods
- I=** Infection at insertion site
- S=** Severe abdominal pain
- C=** Capsule of the implant comes out of the skin
- U=** Unusually heavy vaginal bleeding
- S=** Soreness of the arm
- S=** Severe headache or blurred vision

On the first visit, counsel the client along the following lines:

- Repeat the information about implants.
- Consider seriously any complaint or problems faced by the user, and make every attempt to take care of them. Treat minor complaints and refer her to the physician for any major ones.
- Reassure her that removal is available whenever she wants it.
- Ensure that she understands that the implants must be removed after the effective period is over.
- Advise her to return to the same centre for removal after this period, if possible. Otherwise, give her the name and address of another implants centre.
- Check the insertion site to see whether it has healed.
- Check that the implants are in place.

On the visit for removal of implants, do the following:

- Remove the implants.
- Insert a new set of implants if the client desires.

Recordkeeping

Maintain the following minimum record for use in the clinic and for follow-up of the client:

- Daily clinic register: to register the client
- Client record card: enter information about age, parity, menstrual history, and findings of physical examination
- Client card: give this to the client after entering the following information:
 - Name and location of clinic
 - Name of client and full address
 - Client registration number

- Date of Norplant/Implanon/Jadelle insertion
- Date of expiry/removal due
- Name of inserting physician
- Address of the place where Norplant/Implanon/Jadelle will be removed
- Warning signs

VOLUNTARY SURGICAL CONTRACEPTION

Introduction

Voluntary surgical contraception (VSC) is one of the most effective methods of contraception when the desired family size has been achieved. It is also desirable for women or couples for whom another pregnancy might be detrimental to their health.

VSC is one of the most effective forms of contraception and is a one-time procedure intended to be permanent for both men and women. It includes tubal ligation (TL) in the female and vasectomy in the male.

Both TL and vasectomy are usually performed under local anaesthesia. The client is sent home after a few hours, and hospital admission is not required. TL can be performed within one week of delivery or within 48 hours of an abortion or as an interval procedure. Vasectomy is easier, safer, simpler, and less expensive than TL.

Policy

- Surgical contraception will be purely voluntary.
- There will be no element of coercion while offering contraceptive surgery to clients.
- Informed consent of the couple and written consent of both husband and wife will be obtained in every case.
- Clients having two living children are eligible for contraceptive surgery, provided the age of the younger child is more than 1 year.
- VSC should not be denied to any client, regardless of age, who wants to undergo the procedure.
- Contraceptive surgical procedures will be performed only by trained and certified medical personnel.

- The staff assisting the surgeon during the surgical procedure must also be trained.
- VSC will be performed by a medical doctor in a properly equipped facility that has acceptable standards of asepsis and infection control.
- Minilaparotomy will be the preferred surgical technique for TL, as compared to laparoscopy.
- No-scalpel vasectomy (NSV) will be the preferred technique for vasectomy.
- To promote vasectomy, more stress should be placed on information, education, and counselling for men.

Standards

The following standards must be maintained:

- Adequate facilities for carrying out the procedure must be available. This includes equipment and drugs to handle life-threatening situations and other emergencies.
- The surgeon and staff must be trained and skilled in the techniques they are using and in the use of appropriate and safe anaesthesia.
- All instruments and equipment must be in optimum working order.
- Strict asepsis must be maintained.
- A back-up or a referral system must be ensured.
- Proper counselling, informed choice, and accurate information regarding the irreversible nature of VSC should be provided to all potential clients.

For Female Sterilization (tubal ligation/minilaparotomy)

- The surgeon must be skilled in the management of emergencies related to the minilaparotomy procedure.
- A backup facility for the management of any complications that may arise must be available.
- Follow-up after 7 days must be ensured for all acceptors.

For Male Sterilization (vasectomy)

- No-scalpel vasectomy (NSV) would be the standard technique for vasectomy. However, where surgeons trained in NSV are not available, the conventional technique would be acceptable.
- All vasectomy clients must be advised to use condoms, or their wives can use a temporary method like pills or injection or abstain from sexual contact, for 3 months after having the vasectomy.
- All vasectomy clients must be advised to get their semen analysis done 3 months after the procedure to make sure that the operation was successful.

Female Sterilization

- Female sterilization provides permanent contraception for women when the desired family size has been achieved.
- It is a safe and simple surgical procedure. It can usually be done with just local anaesthesia and light sedation. Proper infection prevention procedures are required.
- The two most common approaches are minilaparotomy and laparoscopy.

Mode of Action

The doctor makes a small incision in the woman's abdomen and blocks off or cuts the two fallopian tubes. These tubes carry eggs/ovum from the ovaries to the uterus. When the tubes are blocked, the woman's ovum cannot be fertilized by the sperm but she continues to have menstrual periods.

Effectiveness

Female sterilization is very effective and permanent. In the first year after the procedure, 0.5 pregnancies occur per 100 women (1 in every 200 women).

Within 10 years after the procedure, 1.8 pregnancies occur per 100 women (1 in every 55 women). Effectiveness depends partly on how the tubes are blocked, but all pregnancy rates are low.

Advantages

- Very effective.
- Permanent: A single procedure leads to life-long, safe, effective family planning.
- Nothing to remember, no supplies needed, and no repeated clinic visits required.
- No interference with sex; does not affect a woman's ability to have sex.
- Increased sexual enjoyment because no need to worry about pregnancy.
- No effect on breast milk.
- No known long-term side effects or health risks.
- Can be performed just after a woman gives birth.
- May help protect against ovarian cancer.

Limitations

- Requires minor surgery by a specially trained provider.
- Compared with vasectomy, female sterilization is:
 - Slightly more risky

- Often more expensive
- Reversal surgery is difficult, expensive, and not available in most areas.
- Successful reversal is not guaranteed.
- No protection against sexually transmitted infections (STIs), including HIV/AIDS.

Client Assessment as per World Health Organization Medical Eligibility Criteria for Female Sterilization

The questions on the following pages check whether the client has any known medical conditions that limit when, where, or how female sterilization should be performed.

The checklist should be used after the client has decided not to have more children, and has chosen female sterilization. It is not meant to replace counselling.

The questions on the checklist refer to known conditions. Generally, the health care provider can learn about these conditions by asking the client. The health care provider does not usually have to perform special laboratory tests to rule out these conditions.

No medical condition prevents a client from having sterilization. Some conditions and circumstances call for delay, referral, or caution, however. These conditions are noted in the checklist.

Delay means delay female sterilization. These conditions must be treated and resolved before female sterilization can be done. Temporary methods should be provided in the meantime.

Refer means refer client to a centre where an experienced surgeon and staff can perform the procedure in a setting equipped with general anaesthesia and other medical support. Temporary methods should be provided.

Caution means the procedure can be performed in a routine setting but with extra preparation and precautions, depending on the condition.

If no conditions require delay or referral, female sterilization can be performed in these routine settings:

Minilaparotomy can be done in RHS-A and RHS-B Centres where surgery can be performed. These include both static and mobile camp facilities that can refer clients for special care if needed.

Laparoscopy requires a well-equipped centre, with highly trained staff, one where laparoscopy is performed regularly and an anaesthetist is available.

Client Assessment as per World Health Organization Medical Eligibility Criteria for Female Sterilization

Ask the client the questions below. If the client answers “no” to all of the questions, then the female sterilization procedure can be performed in a routine setting without delay. If the answer is “yes” to a question below, follow the instructions.

1. Does the client have any gynaecological/obstetric conditions or problems (female conditions), such as pregnancy, infection, or cancer? **DELAY** female sterilization and treat if appropriate or refer in case of:

- Pregnancy
- Postpartum or after second-trimester abortion (7-42 days)
- Serious postpartum or postabortion complications (such as infection or haemorrhage) except uterine rupture or perforation (see below)
- Unexplained vaginal bleeding that suggests a serious condition
- Pre-eclampsia/eclampsia
- Pelvic inflammatory disease (PID) within the past 3 months
- Current STIs
- Pelvic cancers
- Malignant trophoblastic disease

REFER her to a centre with experienced staff and equipment that can handle potential problems:

- Fixed uterus due to previous surgery or infection
- Endometriosis
- Hernia (umbilical or abdominal wall)
- Postpartum uterine rupture or perforation or postabortion uterine perforation

CAUTION:

- Past PID since last pregnancy
- Current breast cancer
- Uterine fibroids
- Previous abdominal or pelvic surgery

2. Does the client have any cardiovascular conditions, such as heart problems, stroke, high blood pressure, or diabetes?

DELAY female sterilization:

- Acute heart disease. Deep vein thrombosis or pulmonary embolism.

REFER to a centre with experienced staff and equipment that can handle potential problems:

- Moderate or severe high blood pressure (160/100 mm Hg or higher)
- Vascular disease
- Complicated valvular heart disease

CAUTION:

- Mild high blood pressure (140/90 mm Hg-159/99 mm Hg)
- History of high blood pressure that can be evaluated and adequately controlled
- Past stroke or heart disease

Client Assessment as per World Health Organization Medical Eligibility Criteria for Female Sterilization

3. Does the client have any lingering, chronic diseases or any other conditions? Which ones?

DELAY female sterilization in case of:

- Gall bladder disease with symptoms
- Active viral hepatitis
- Severe iron deficiency anaemia (haemoglobin less than 7 g/dl)
- Acute lung disease (bronchitis or pneumonia)
- Systemic infection or significant gastroenteritis
- Abdominal skin infection
- Abdominal surgery due to acute abdomen
- Immobilization due to major surgery
- Post-surgical wound infection
- Current AIDS-related acute illness

REFER her to a centre with experienced staff and equipment that can handle potential problems:

- Severe cirrhosis of the liver
- Diabetes for more than 20 years
- Hyperthyroidism
- Bleeding disorders
- Chronic lung disease
- Pelvic tuberculosis

CAUTION:

- Epilepsy or taking medicine for seizures (phenytoin, carbamazepine, barbiturates, primidone)
- Taking the antibiotics rifampicin or griseofulvin
- Diabetes without vascular disease
- Hypothyroidism
- Mild cirrhosis of the liver, liver tumours, or schistosomiasis with liver fibrosis
- Moderate iron deficiency anaemia (haemoglobin 7-10 g/dl)
- Sickle cell disease
- Inherited anaemia (thalassaemia)
- Kidney disease
- Diaphragmatic hernia
- Severe malnutrition
- Obesity
- Elective abdominal surgery at time sterilization is desired
- Young age
- Mental disorder

Client Assessment as per World Health Organization Medical Eligibility Criteria for Female Sterilization

Be sure to explain the health benefits and risks and side effects of the method that the client will use. Also point out any conditions that would make the method inadvisable.

In general, most clients who want sterilization can have safe and effective procedures in routine settings. With proper counselling and informed consent, sterilization can be used in any circumstances by female clients who:

- Just gave birth (within 7 days)
- Are breastfeeding

Also, clients with the following conditions can have sterilization in a routine setting in any circumstances:

- Past ectopic pregnancy
- Benign ovarian tumours
- Irregular or heavy vaginal bleeding patterns, painful menstruation
- Vaginitis without purulent cervicitis
- Varicose veins
- HIV-positive or high risk of HIV or other STIs
- Uncomplicated schistosomiasis
- Malaria
- Tuberculosis (non-pelvic)

Before the procedure, the client should:

- Not eat or drink anything for 8 hours before surgery, except for clear liquids, which the client can take until 3 hours before surgery.
- Not take any medication for 24 hours before surgery. The morning dose of medicine for hypertensive or diabetes can be taken with doctor's advice.
- Bathe thoroughly, especially belly, genital area, and upper legs.
- Wear clean, loose-fitting clothing.
- Not wear nail polish or jewellery.
- Bring a friend or relative to accompany her home afterwards.

Method of Use

The client can have a female sterilization procedure at any time when the desired family size is achieved:

- If it is certain that she is not pregnant.
- Immediately after childbirth, ideally within 48 hours postpartum but allowable within 7 days after delivery (minilaparotomy procedure only).
- At any time 6 weeks or more after childbirth if it is reasonably certain she is not pregnant.
- At any time after an uncomplicated abortion or miscarriage that is of approximately 12 weeks or less gestational age. In pregnancies that are over 12 weeks of gestational age, the procedure can be safely performed within

the first 48 hours after pregnancy termination if there are no associated complications, or after 6 weeks.

- Any other time, but not between 7 days and 6 weeks postpartum.

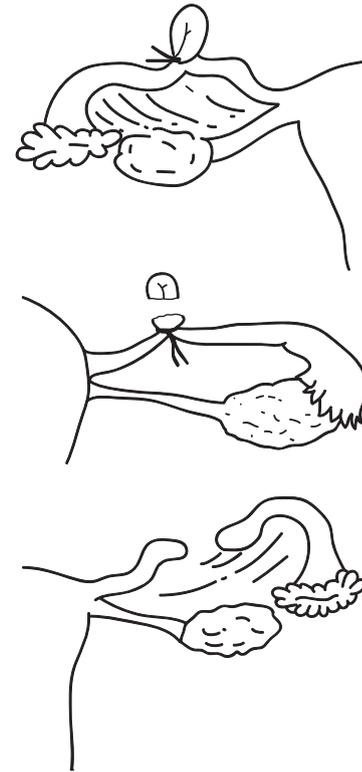
Techniques of Female Sterilization

To perform female sterilization, training and practice under direct supervision are required. All health care providers should understand these procedures and be able to discuss them with clients.

The Minilaparotomy Procedure

Below is a description of the interval procedure, used more than 6 weeks after childbirth. The postpartum procedure, used less than 7 days after childbirth, is slightly different.

1. Use proper infection prevention procedures.
2. Ask questions about the client's past and current health, and perform a physical examination and a pelvic examination.
3. Give light sedation to relax the client.
4. Infiltrate local anaesthetic into the incision site just above the pubic hair line.
5. Make a small incision (2–5 cm) in the anaesthetized area and expose the abdominal cavity.
6. Raise and turn the uterus with the uterine elevator to bring each of the two fallopian tubes under the incision.
7. Tie and cut each tube.
8. Close the incision with stitches and cover with adhesive bandages.



The Laparoscopy Procedure

1. Use proper infection prevention procedures.
2. Ask questions about the client's past and current health, and perform a physical examination and a pelvic examination.
3. Give the client light sedation.
4. Infiltrate the local anaesthetic into the incision site just under the navel.
5. Insert a special needle into the abdomen and, through the needle, introduced gas to inflate the abdomen. This raises the wall of the abdomen away from the organs inside.

6. Make a small incision (about 2 cm) under the navel and insert the trocar.
7. Insert the laparoscope or laprocator through the trocar.
8. Apply the fallope ring or clip using the laprocator to close off the tubes. Each tube is closed with a clip or a ring
9. After the tubes are closed, remove the trocar and laparoscope. Let the gas come out of the abdomen.
10. Close the incision with stitches and cover it with adhesive bandages.

Anaesthesia

Local anaesthesia, used with or without mild sedation:

- Is safer than general, spinal, or epidural anaesthesia.
- Minimizes the length of the client's stay at the hospital.
- May involve use of many different anaesthetics and sedatives.
- May need to use additional sedation and/or analgesia; this should be adjusted according to the client's body weight.

For situations in which clients need general anaesthesia, see the section on Medical Eligibility Criteria for medical conditions requiring referral to a centre that can provide general anaesthesia.

After the Procedure

The client should:

- Rest for 2 or 3 days and avoid lifting heavy objects for 7 days.
- Keep the incision clean and dry for 2 or 3 days.
- Not rub or irritate the incision for 1 week.
- Take paracetamol or another safe, locally available pain relief medicine, if needed.
- Not have sex for at least 1 week.

Side Effects and Management

- Some discomfort is common after the operative procedure. This discomfort can be relieved with analgesics.
- In laparoscopic ligation, chest and shoulder pain may occur for 1 or 2 days because of trapped gas remaining in the abdominal cavity. This pain can be relieved with analgesics.
- Some women complain of heavy or irregular periods after TL. These are not related to the procedure. If the complaint is troublesome, the client should be referred to a gynaecologist.

Complications of Minilaparotomy

TL using minilaparotomy is a safe procedure, and complications are few. There may, however, be short-term (immediate) or long-term (delayed) complications as listed below.

- Possible short-term (immediate) complications are:
 - Drug reaction
 - Bleeding from the wound
 - Uterine perforation with the uterine elevator
 - Injury to mesosalpinx and broad ligament
 - Bladder or intestinal injury
 - Anaesthesia problems
 - Tears/transaction of the tubes
- Possible long-term (delayed) complications are:
 - Wound infection
 - Haematoma or abscess formation
 - Menstrual disorders
 - Ectopic pregnancy
 - Failure of sterilization (which is rare)

Complications of Laparoscopic Ligation

- Bleeding
- Visceral injuries
- Infection
- Gas insufflation such as gas embolism, subcutaneous emphysema, and respiratory or cardiac arrest
- Lacerations of large blood vessels or abdominal organs by trocar

Resuscitation and Emergency Management

Anaesthesia Problems

There is a small but definite risk of problems with the use of parenteral sedation and/or analgesia. Emergency drugs should be ready in case a reaction occurs. Adequate monitoring will lead to early recognition and prompt management of:

- Allergy to the local anaesthetic agent
- Reaction to pre-medication

Haemorrhage during Surgery and Early Post-Operative Period

Haemorrhage may occur with both minilaparotomy and laparoscopic ligation, and may be detected by closely monitoring the vital signs of the client during the pre- and post-operative periods. If haemorrhage occurs, do the following:

- Establish an intravenous line, preferably with a large-bore needle or branula.
- Introduce intravenous fluids or plasma expanders, if necessary.
- Send blood for grouping and cross-matching and transfuse blood, if necessary, after you receive the laboratory clearance for hepatitis and HIV.
- Take the client into the theatre for emergency surgery. Ensure that a sterile emergency laparotomy kit is available at all times (to meet such emergencies).
- In case of bladder and bowel injury, call a surgeon.

Uterine Perforation

If perforation occurs during minilaparotomy:

- Change the position of the elevator and observe the client.
- If bleeding occurs, apply pressure with a hot-water sponge and use spongostan.
- Apply mattress stitches and, if bleeding does not stop, call a surgeon.

Post-Operative Complications and Management

Infection

TL may be followed by pelvic infection. The chances of infection increase if there is a history of previous sepsis after surgery, or if undiagnosed infection was present before surgery. Immediately refer to the doctor (preferably to the operating surgeon) any client complaining of fever, severe lower abdominal pain, or vaginal discharge. Wound infection may occur, but is usually not serious. The wound should be dressed daily, and if the discharge persists for more than 2 days, refer the client to a doctor.

Menstrual Changes

In some cases, menstrual changes have been reported. Studies have shown that these changes could be due to a decline in the level of serum progesterone.

Other Problems

- Subsequent regret
- Psychological problems

Failure of Tubal Ligation

All tubal occlusion methods have a failure rate, however slight, and the pregnancy that results carries a higher risk of being ectopic. Pregnancy after TL may occur when:

- The woman may have become pregnant in the same menstrual cycle in which the operation was carried out, i.e., she was already pregnant at the time of surgery.
- Structures other than the tubes were ligated.
- The fallopian ring was not applied properly.
- The cut ends of the tubes reconnected spontaneously.
- The uterine end of the tube developed a fistula with the peritoneal cavity, which may permit the sperms to pass.

If the client complains of amenorrhoea, send her for a pregnancy test. Be alert to the possibility of an ectopic pregnancy if the client complains of amenorrhoea, irregular vaginal bleeding, or lower abdominal pain, and refer her immediately to an appropriate medical facility for diagnosis and treatment.

Post-Operative Danger Signs

- Fever (greater than 100.4°F or 39°C)
- Dizziness with fainting
- Abdominal pain that is persistent or increasing
- Bleeding or fluid oozing from the incision
- Signs of tetanus: Twitching of facial muscles, lockjaw, opisthotonus, etc.
- Abdominal distension associated with vomiting and failure to pass gas

Patients with these danger signs should be referred to the doctor immediately.

Counselling

Greet the client, ask her to sit down and make sure that she is comfortable. Now ask her some questions to confirm whether she needs permanent contraception.

Ask the client following questions:

- Do you want to have any more children in the future?
- If not, do you think you could change your mind later? What might change your mind? Suppose, God forbid, one of your children dies?
- Suppose you lose your spouse, and you marry again?
- Have you discussed sterilization with your spouse?
- Does your spouse want more children in the future?

- Do you think your spouse might change his or her mind later?
- Clients who cannot answer these questions may need encouragement to think further about their decisions regarding sterilization.

Special Care

In general, people most likely to regret sterilization have these characteristics:

- Young
- Few or no children
- Have not talked with their spouse about sterilization
- Spouse opposes sterilization
- Not married
- Have problems in their marriage

Also, for a woman, just after delivery or abortion is a convenient and safe time for voluntary sterilization, but women sterilized at this time are more likely to regret it later. Thorough counselling during pregnancy, and ensuring that the woman made her decision well before labour and delivery began, help avoid regrets.

A client should return to the clinic for any of these reasons:

- For a follow-up visit, within 7 days to have stitches removed.
- The client has questions or problems of any kind.
- Return at once if:
 - High fever (greater than 38°C) in the first week
 - Pus or bleeding from the wound
 - Pain, swelling, or redness of the wound
 - Abdominal pain, cramping, or tenderness
 - Fainting or dizziness
- The client suspects pregnancy.
- The client should come to the clinic at once if she has any of the following signs:
 - Lower abdominal pain or tenderness on one side
 - Abnormal or unusual vaginal bleeding
 - Faintness (indicating shock)

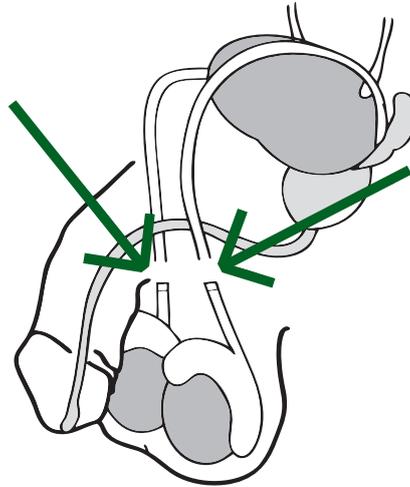
Note: Pregnancies among users of voluntary sterilization are rare. But when pregnancy occurs, it is more likely to be ectopic than the normal pregnancy. Ectopic pregnancy is life-threatening. It requires immediate treatment.

Vasectomy

Vasectomy provides permanent contraception for clients who decide that their desired family size has been achieved. It is a safe, simple, quick surgical procedure and can be performed in a clinic. It is not castration, does not affect the testes, and does not affect sexual ability.

Mode of Action

The surgeon makes a small opening in the scrotum and closes off both tubes that carry sperm from the testicles. The semen becomes devoid of sperm and, therefore, pregnancy cannot occur.



Effectiveness

Vasectomy is very effective and permanent when correctly done. Between 2 and 3 pregnancies occur per 100 women in the first year after their husbands have the procedure.

Correctly done means that condoms were used consistently for at least 3 months after the procedure. Semen analysis 3 months after the procedure should be performed to make sure that the vasectomy was successful.

Advantages

- Very effective.
- Permanent: A single, quick procedure leads to life-long, safe and very effective family planning.
- No interference with sex. Does not affect the ability to have sex.
- Increased sexual enjoyment because no need to worry about pregnancy.
- No supplies to obtain and no repeated clinic visits required.
- No apparent long-term health risks.
- Compared with voluntary female sterilization, vasectomy is:
 - A non-invasive procedure
 - Slightly more effective
 - Safer
 - Easier to perform
- Effectiveness can be checked any time.

- If pregnancy occurs due to failure of vasectomy, it is less likely to be ectopic than a pregnancy in a woman who has been sterilized.

Limitations

- Requires minor surgery by a specially trained provider.
- Not immediately effective. The couple must use another contraceptive method for at least the first 3 months.
- Semen analysis has to be done to make sure that there are no sperm in it and the procedure is successful.
- Reversal surgery is difficult, expensive, and not available in most areas.
- Successful reversal cannot be guaranteed.
- No protection against STIs, including HIV/AIDS.

Client Selection as per World Health Organization Medical Eligibility Criteria for Vasectomy

All clients who wish to can have a vasectomy. No medical conditions prevent a client from having vasectomy. This checklist asks the client about known medical conditions that may limit the vasectomy procedure. Ask the client the questions below. If the answer is “no” to all of the questions, then the vasectomy procedure can be performed in a routine setting without delay. If the answer is “yes” to a question given below, follow the instructions, which recommend caution, delay, or special arrangements.

In the checklist below:

Caution means the procedure can be performed in a routine setting but with extra preparation and precautions, depending on the condition.

Delay means postpone vasectomy. These conditions must be treated and resolved before vasectomy can be performed. Give the client another method to use until the procedure can be performed.

Special means special arrangements should be made to perform the procedure in a setting with an experienced surgeon and staff; equipment to provide general anaesthesia is needed as well as other backup medical support. For these conditions, the capacity to decide on the most appropriate procedure and anaesthesia regimen also is needed. Give the client a backup method to use until the procedure can be performed.

1. Does the client have any problems with his genitals, such as infections, swelling, injuries, or lumps on his penis or scrotum?

If client has any of the following, use caution:

- Previous scrotal injury
- Swollen scrotum due to swollen veins or membranes in the spermatic cord or testes (large varicocele or hydrocele)

Client Selection as per World Health Organization Medical Eligibility Criteria for Vasectomy

- Undescended testicle, one side only (Vasectomy is performed only on the normal side. Then, if any sperm are present in a semen sample after 3 months, the other side must be done, too.)

If client has any of the following, *delay* vasectomy:

- Active STI
- Swollen, tender (inflamed) tip of the penis, sperm ducts (epididymis), or testicles
- Scrotal skin infection or a mass in the scrotum

If client has any of the following, make *special* arrangements:

- Hernia in the groin
- Undescended testicles

2. Does the client have any other conditions or infections? If so, what?

If client has the following, use *caution*:

- Diabetes
- Depression
- Young age

Delay vasectomy if client has:

- Systemic infection or gastroenteritis
- Filariasis or elephantiasis

Make *special* arrangements if:

- Client has AIDS (see vasectomy for men with HIV, below)
- Client has blood that fails to clot (coagulation disorders)

Vasectomy for Men with HIV

- Clients who are infected with HIV, have AIDS, or are on antiretroviral therapy (ART) can safely have a vasectomy, but special arrangements are needed.
- Vasectomy does not prevent transmission of HIV.
- Advise the client to use condoms correctly and consistently for 3 months post-operatively.
- Coercion or force for getting a vasectomy should be avoided.

Method of Use

Any time client decides that the desired family size is achieved.

Technique of Vasectomy

- Use proper infection prevention procedures at all times.
- Inject local anaesthetic in the scrotum.
- Feel the two vas deferens under the skin in the scrotum.
- Make a puncture or incision in the skin:

- Using the no-scalpel vasectomy technique, grasp the vas deferens with specially designed, sharp surgical forceps and make a tiny puncture in the skin at the midline of the scrotum,
OR
- Using the conventional procedure, make one or two small incisions in the skin with a scalpel.
- Lift out a small loop of each vas from the puncture or incision.
- Cut each vas and tie one or both cut ends with thread.
- Cover the puncture with an adhesive bandage.

Side Effects and Management

If a client experiences pain, swelling, or redness at or around the incision, check for clots, pus, infection, or abscess and refer accordingly.

Table 12-1. Vasectomy: Side Effects and Fears, and Their Management

Side Effect	Management
Pain	<ul style="list-style-type: none"> • Check for blood clots in the scrotum: <ul style="list-style-type: none"> – Small, uninfected blood clots require rest and pain relief medication such as paracetamol. – Large blood clots may need to be surgically removed. – Infected blood clots require antibiotics and hospitalization.
Infection (pus, heat, pain, or redness)	<ul style="list-style-type: none"> • Clean site with soap and water or antiseptic. • Give 7- to 10-day course of oral antibiotics.
Abscess (a pocket of pus under the skin)	<ul style="list-style-type: none"> • Clean site with antiseptic. • Incise and drain the abscess. • Perform wound care. • If significant skin infection involved, give 7- to 10-day course of oral antibiotics.
Fear of impotence	Vasectomy does not physically change sexual desire, functioning, or pleasure.

Method-Specific Counselling

Pre-Procedure Counselling

For all clients requesting VSC, follow the steps given below:

- Give them information about temporary methods of contraception.
- Ask the couple what they know about VSC.

- Inform them that VSC is a surgical procedure that it is permanent, and involves cutting and tying of the tubes in the female and of the vas in the male.
- Make sure that the client understands the information correctly and has no misconceptions.
- Explain to the client about the steps of the minilaparotomy or vasectomy procedures.
- Encourage questions.
- Answer questions clearly in terms that the client(s) understands; dispel misconceptions.
- Explain the effectiveness of the procedure, and its failure rate.
- Give written information as well.
- Ensure that the client is not making a decision because of pressure from any person, policy, or incentive to avoid later regrets.

If the client is undecided about accepting VSC:

- Give him/her time to think things over.
- Help him/her choose another method of contraception.
- Ask him/her to come back when he/she has reached a decision.

If VSC is not acceptable:

- Advise a long-term contraceptive such as an IUCD or implant.

When a client is ready to accept VSC:

- Give him/her additional information about the nature of the anaesthesia and surgery, operating theatre routine, post-operative care, side effects, etc., and refer him/her to a VSC facility after you fill out a referral form.
- If TL is the method of choice, give information about the time in relation to menstrual cycle, delivery, and abortion.

If you are counselling a pregnant client, inform her that TL can be performed:

- Within 1 week of delivery, or within 48 hours after abortion (early surgery has the advantage of avoiding re-admission to hospital).
- As an interval procedure at any time after 6 weeks postpartum.

At the VSC centre, the client will be given a consent form to sign in which he/she will again be asked about informed choice, and it will be made clear that he/she is still free to change his/her mind, even though the consent form has been signed.

A separate consent form for males should be available for vasectomy.

Post-Procedure Counselling

After the VSC procedure is over, take the following steps:

- Reassure the client that the procedure will not affect him/her adversely.
- Give instructions, both verbally and in writing, on post-operative care and follow-up.
- Explain how he/she should take the required medication.
- Advise the clients to rest until that evening.
- Tell the client that in case of any problems, he/she should return to the VSC facility. If the procedure is performed in an Extension Service Camp, tell the client to contact the nearest referral centre or hospital, the name of which is entered on the client card.
- Inform the client about warning signs.
- In the case of TL, remind the client to revisit the centre for removal of stitches 1 week after the procedure. (Write down the date on the client card.)
- In the case of TL, if the client is unable to come to the centre, arrange for a trained paramedic to visit the client at home and remove the stitches.
- Advise the client that sexual intercourse can be resumed after 1 week. This applies to female acceptors undergoing interval ligation, as well as to male acceptors, but warn male acceptors to use condoms for 3 months, and have a semen analysis after 3 months of the procedure to ensure the semen is sperm-free. If the surgeon advises, use scrotal support and avoid cycling for 1 week in case of NSV.

Informed Consent

The client must understand the following points:

- Temporary contraceptives are also available to the client.
- Voluntary sterilization is a surgical procedure.
- There are certain risks involved in the procedure.
- If successful, the operation will prevent the client from having any more children.
- The procedure is considered permanent for all practical reasons.
- The client can decide against the procedure at any time before it takes place.

Follow-Up

After tubal ligation

There should be a follow-up visit within 7 days after the procedure. During the visit, take the following steps:

- Ask the client if there are any complaints. If so, carry out any required examination or, if necessary, refer for an examination and/or treatment.
- Check the operative site for infection.
- Remove the stitches.
- Again, reassure the client, and clear up any doubts or misconceptions.
- If all is well, inform the client that she can resume sexual activity.
- If necessary, plan another follow-up visit.

Complete all entries after the follow-up examination.

After NSV

Vasectomy acceptors should also have at least one follow-up examination, preferably after 1 week. During this visit, take the following steps:

- Check the operative site and perform any other relevant examination if indicated.
- Remind the client to use condoms or abstain from sex for 3 months for successful contraception and, after this, have a semen analysis performed to ensure that the semen is sperm-free.

Reversal of Tubal Ligation and Vasectomy

Reversal surgery is difficult, expensive, and not available in most areas of the world. Success cannot be guaranteed. In certain conditions such as death of spouse, death of children due to natural or accidental causes, divorce, or second marriage after divorce, when reversal becomes necessary, refer the client to a properly equipped and well-trained surgical team of a teaching hospital, preferably to a gynaecologist/urologist trained in microsurgery.

Recordkeeping

Maintain the following records:

- The signed consent form.
- Client record card. Complete the information on the client's personal and medical history and investigations.
- After the procedure, notes on the anaesthesia operative procedure, the immediate post-operative period, and treatment.
- The client card with information about follow-up visits and whom to contact in case of problems.
- Printed post-operative care instructions.

Standard Facilities for a Reproductive Health Service Centre

Physical Facilities:

- Running or portable water
- Electricity and other light source
- Toilet facilities
- Reception/registration/counsellor's area
- Examination room
- Space for laboratory tests
- Operating room with screened windows

Room/Area for:

- Auxiliary facilities such as autoclave/sterilization equipment
- Scrub facility/area pre-operative room/area
- Post-operative room

If a room is used for several activities, it is important that clients' privacy be assured.

Staff Requirement

Vasectomy

Staff	No.
Trained doctor	1
Assistant	1
Theatre technician	1
Counsellor/Paramedic	1
Clinic helper	1

Tubal Ligation

Staff	No.
Trained doctor	1
Trained theatre nurse	1
Theatre technician	1
Counsellor	1
Assistant	2
Helper	1
Clerk	1
Driver	1
Sweeper	1

Other Material and Medicine Required for Minilaparotomy

Suture Material and Other Items

- Black silk or black thread
- Chromic catgut No. 1
- Sterile gauze squares (4" x 4")
- Sterile cotton balls

Linen for One Operation

Item	No.
Drape, towel with eyehole	6
Gowns	4
Masks	4
Caps	4
Pairs of gloves size 6, 6.5, 7 and 7.5 with glove powder	6
Packing towels	2
Soap	1
Surgical nail brush (nylon)	3

Medicines

- Prep solution: Betadine
- Methylated spirit
- Sedatives/tranquilizers:
 - Local anaesthetic: Xylocaine 1%
- Adhesive plaster
- Analgesics (12 tablets/patient):
 - Tab. Paracetamol or Panadol 1 TDS
- Antibiotics (when required): 20 capsules per client:
 - Cap. Tetracycline 250 mg, or
 - Cap. Amoxicillin 250 mg 6 hourly x 5 days
- Iron sulphate tablets

Emergency and Resuscitation Equipment

- Oro-pharyngeal airways—2 sizes
- Ambu bag
- Laryngoscope and endotracheal tubes
- Suction machine with tubing and two traps
- Oxygen tank with reducing valve, flow meter, tubing, and mask
- Intravenous administration sets with large-calibre needles
- I.V. fluids, dextrose-saline/dextrose 5%
- Emergency drugs and antidotes to anaesthetic or other drugs
- Venisection set
- Standard laparotomy set

Note: The tray containing drugs and equipment should be kept in an accessible place in good working order and the staff should be familiar with its location and proper use.

Previous use of contraceptives:

0. None
1. Oral Pill
2. IUCD
3. Foam/Jelly/Diaphragm
4. Rhythm/Withdrawal
5. Condom
6. Injectable
7. Combination of above methods

Menstrual History: 24 25 26 27 28 29

Date of LMP: / /
Day Month Year

1. Regular
2. Irregular

1. Scanty
2. Normal
3. Heavy

Past History:

- | | | |
|-------------------|----------------------------|--------------------------|
| 1. Diabetes | 6. Jaundice | |
| 2. Hypertension | 7. Heart disease | |
| 3. Peritonitis | 8. History of drug allergy | |
| 4. Hernia | 9. Any abdominal operation | <input type="checkbox"/> |
| 5. Lung infection | 10. None | |

Laboratory Investigation:

- | | | |
|-------|---------------------|-----------------------------|
| Urine | 1. Diabetes | 3. Sugar positive |
| | 2. Albumin positive | 4. Sugar + Albumin positive |

- | | | |
|-----------|------------------|------------------|
| Blood Hb% | 1. Less than 50% | 3. 60% and above |
| | 2. 50-60% | |

- | | | |
|-------------|-----------|---------------|
| Examination | 1. Normal | 2. Not normal |
|-------------|-----------|---------------|

General examination:

Weight: _____ Kgs B.P.: _____ Temp.: _____ C.V.S.

Resp. System: _____ Abdomen: _____

Pelvic examination (Findings): 1. Normal 2. Not normal

P/S examination (Findings): 1. Normal 2. Not normal

Remarks of doctor: _____

B. Pre-Operative Medication

	Drug	Dose	Route
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____

C. Operative Procedure and Medication

Date of LMP: / /
Day Month Year

Name of surgeon: _____

Assisted by (name of doctor): _____

Operative procedure: Minilap/Laparoscopy/Other (specify): _____

Type of local anaesthesia: _____

Vital sign monitoring during surgery: _____

B.P.: _____ Pulse: _____ Respiration _____

Duration of surgery: _____

 Name and Signature of Doctor

D. Operative Procedure and Medication

Complication of operative procedure (specify): _____

Management of these complications (state briefly): _____

Date of discharge of client: _____

Condition discharge: B.P.: _____ Pulse: _____ Temp. _____

General conditions: _____

Post-operative instructions including medicines given: _____

 Name and Signature of Doctor

Date: _____

E. Follow-Up

Date: _____

1. Satisfactory

2. Not satisfactory

a. General condition of client: _____

EMERGENCY CONTRACEPTIVES

Introduction

Emergency contraception (EC) is a method used by a woman to prevent an unwanted pregnancy after unprotected sexual intercourse.

There are currently two methods of EC:

- Oral emergency contraceptive pills (ECPs)
- Copper-bearing intrauterine contraceptive device (IUCD)

Emergency contraceptive pills (ECPs) are sometimes referred to as “morning-after” or “post-coital” pills, but since these terms do not convey the correct timing for EC use, the preferred term is emergency contraceptive pills. ECPs should be used within 120 hours (5 days) after unprotected intercourse.

Types of ECPs that are available are:

- Oral contraceptives containing only progestin (levonorgestrel)
- Combined oral contraceptives (COCs) containing an oestrogen (ethinyl estradiol) and a progestin (levonorgestrel); this is known as the Yuzpe method

A copper-bearing IUCD (Copper T 380A or Multiload Cu-375) can also be used as EC when inserted within 5 days of unprotected intercourse. The IUCD can remain in place to serve as a regular contraceptive for up to 5–12 years, and it can be removed by a trained health provider whenever the client wishes.

Policy

Emergency contraception:

- Will be used by women only in case of emergency.
- Will be dispensed by skilled service providers.
- Will be dispensed with counselling about its side effects.
- Will not be used as a regular method of family planning.

Standards

The following standards should be observed:

- The client seeking EC should be provided with all necessary information regarding advantages, limitations, and side effects of the EC.
- EC should be dispensed and used within 120 hours of the unprotected act.
- Before dispensing it, the provider should ensure that the woman is not pregnant.
- The client should be counselled to start a regular method immediately or avoid sex until the start of the preferred method.

Mode of Action

Levonorgestrel ECPs have been shown to prevent ovulation, and do not have any detectable effect on the endometrium or progesterone levels when given after ovulation.

ECPs are not effective once the process of implantation has begun and will not cause abortion.

Effectiveness

- ECP: Effective when used immediately—up to 120 hours—after sex:
 - If 100 women each had sex once during the second or third week of the menstrual cycle without using contraception, eight would likely become pregnant.
 - If all 100 women used progestin-only ECPs, one would likely become pregnant.
 - If all 100 women used oestrogen and progestin ECPs, two would likely become pregnant.
- Copper-bearing IUCD:
 - The failure rate is not higher than 0.2 percent.
- Return to fertility:
 - A woman can become pregnant immediately after taking ECPs. They prevent pregnancy only from acts of sex that took place up to 5 days before. They will not protect a woman from pregnancy and from the act of sex after she takes ECPs, not even on the next day.

Advantages

- Safe and effective
- Easy to use
- Few or temporary side effects
- Can also be used by breastfeeding women
- Not associated with birth defects in case the method fails
- Can have in hand in case an emergency arises
- Do not cause delay in fertility return
- Women with HIV/AIDS and on ART can safely use

Limitations

- Should be taken within 120 hours after unprotected sex.
- Can cause minor side effects.
- Do not provide ongoing protection against pregnancy.
- Do not protect against sexually transmitted infections (STIs) and HIV/AIDS.

Client Assessment as per WHO Medical Eligibility Criteria

All women can use ECPs safely and effectively, including women who cannot use ongoing hormonal contraceptive methods. There are no medical conditions that make ECPs unsafe for any women because of the short-term nature of their use.

Method of Use

Any woman of reproductive age may need EC at some point to avoid an unwanted pregnancy. EC is meant to be used after intercourse in situations such as:

- When no contraceptive has been used and the client does not want to get pregnant.
- When there is a contraceptive failure or incorrect use, including:
 - Condom breakage, slippage, or incorrect use
 - If the client missed three or more consecutive COC pills
 - Progestin-only pill (mini-pill) taken more than 3 hours late
 - Progestin-only contraceptive injection, depot-medroxyprogesterone acetate, or norethindrone enanthate received more than 4 weeks or 2 weeks late respectively
 - A combined oestrogen-plus-progestin monthly injection received more than 7 days late; or dislodgement, delay in placing, or early removal of a contraceptive hormonal skin patch or vaginal ring

- Dislodgement, breakage, tearing, or early removal of a diaphragm or cervical cap
- Failed coitus interruptus (e.g., ejaculation in vagina or on external genitalia)
- Failure of a spermicide tablet or film to melt before intercourse
- Miscalculation of the periodic abstinence method or failure to abstain on fertile day of cycle
- IUCD expulsion
- In cases of sexual assault when the woman was not protected by an effective contraceptive method.

While all women in situations of conflict are vulnerable to sexual assault, young female adolescents may be the group most in need of EC services. Adolescent refugees are often targeted for sexual exploitation and rape, yet there are relatively few programmes that address the specific reproductive health needs of young people, and even fewer that provide EC.

As with all health interventions, EC should be implemented in accordance with cultural values and national protocols. EC is one component of reproductive health care, and communities need to receive full and impartial information and counselling about it as they do for all other forms of reproductive health care. Health workers may require additional training in EC if they are not familiar with its use to ensure a sensitive and culturally appropriate response to women's needs. EC services are aligned with national laws and policies.

Dedicated ECP products are specially packaged with the appropriate higher dosages of the two types. Both ECP types are effective, but the preferred method is the progestin-only contraceptive, due to its higher efficacy rate and lower risk of nausea and vomiting.

Each type of contraceptive has different regimens, with both high and low doses. The charts and descriptions below detail the regimens for each type of ECP. For all regimens, ECPs should be taken as soon as possible after intercourse, but optimally within 120 hours.

Table 13-1. Types of Emergency Contraceptive Pills and Their Doses

Formulation (Examples of Brands)	Number of Pills to Swallow within 120 Hours
Progestin-only oral contraceptives containing 0.075 mg (75 mcg) of norgestrel (<i>Ovrette, Neogest, Norgel</i>)	40
Progestin-only oral contraceptives containing 0.03 mg (30 mcg) of levonorgestrel (<i>Folistrel, Microval, Microlut, Microluton, Mikro-30 Wyeth, Mikro-30, Norgeston, Nortrel</i>)	50
Low-dose COCs containing 0.15 mg of levonorgestrel plus 0.03 mg (30 mcg) of ethinyl estradiol (<i>Nova, Novadol, Famila</i>)	8 (4 stat and 4 after 12 hours)
Levonorgestrel 0.75 mg (<i>Postinor-2/EC/ECP/ EmKit</i>)	2

Table 13-2. Emergency Contraceptive Pills: Side Effects and Their Management

Side Effect	Management
Nausea: Nausea is the most common side effect of ECPs. About 50 percent of women using COCs and 20 percent of women using progestin-only pills for EC experience nausea. It usually does not last more than 24 hours.	<ul style="list-style-type: none"> • Routine use of antiemetic medications is not recommended. • If previously experienced nausea with ECP dose, take a single dose of meclizine 1 hour before the first dose of ECPs to help reduce the risk of nausea and vomiting. Clients should be warned that meclizine may cause drowsiness. Evidence does not suggest that taking ECPs with food will alter the risk of nausea.
Vomiting: Vomiting occurs in 20 percent of women using COCs and 5 percent of women using progestin-only pills. Vomiting within 2 hours of taking ECPs can reduce the effectiveness of the method.	Repeat the dose if vomiting occurs within 2 hours of taking the pills. If vomiting is severe, the repeat dose may be administered high-up vaginally.
Irregular uterine bleeding: Spotting may occur in some women.	<ul style="list-style-type: none"> • It will usually stop without treatment. • Assure the women that it is not a sign of illness.
Changes in the time of next monthly bleeding or suspected pregnancy	<ul style="list-style-type: none"> • If menstruation is delayed by more than a week, a pregnancy test should be performed. • Monthly bleeding will start earlier or later and is not a sign of illness.
Other side effects: Other side effects that have been reported with EC include breast tenderness, headache, dizziness, and fatigue. These side effects usually do not last more than 24 hours.	Pain relievers, like aspirin or paracetamol, can be used to reduce discomfort.

Method-Specific Counselling for Emergency Contraception

Health care providers who counsel clients about EC should be careful to withhold judgemental comments and refrain from expressing disapproval of a client's decision.

Explaining the Use of Emergency Contraception

- Explain emergency oral contraception, its side effects, and effectiveness.
- Provide the pills for emergency oral contraception or insert an IUCD as chosen by the client after counselling.
- If the client is already pregnant, do not provide ECPs.

Follow-Up

1. Advise the client to return or to see the health care provider if her next period is quite different from the usual, especially if it is:
 - Unusually light (possible pregnancy)
 - Does not start within 4 weeks (possible pregnancy)
 - Unusually painful (possible ectopic pregnancy, but emergency oral contraception does not cause ectopic pregnancy)
2. Describe the symptoms of STIs, for example, lower abdominal pain, unusual vaginal discharge, or pain or burning on urination. Advise her to see a health care provider if any of these symptoms occurs.
3. As EC is appropriate for emergency use only, clients should be offered information on other contraceptive methods that they can use on a regular basis. However, it is important to inform clients that while EC should not be used as a regular contraceptive method, its recurrent use will not pose a health risk.
4. Clients who have opted for the IUCD as their preferred EC (when appropriate and possible) should be made aware that this IUCD can serve as their regular family planning method for a maximum of 5–12 years. (The Copper T is approved for up to 12 years; the Multiload is approved for up to 5 years.)

ADVANCES IN CONTRACEPTIVE TECHNOLOGY

Introduction

Many new contraceptive methods have been developed in recent years. Some of these have been approved by the U.S. Food and Drug Administration. All of these methods can be grouped under five categories:

- Barrier methods
- Combined hormonal contraceptives
- Intrauterine devices
- Implants
- Female sterilization

Policy

- Provide better options and choices for contraception.
- Introduce new contraceptives after trial under local conditions and obtaining conclusive evidence of efficacy and safety of methods.
- Inform the respondents about the trial, obtain their consent for participation, and reassure them about privacy and confidentiality.
- Disseminate the information to stakeholders and formally launch the methods after approval by the Ministry of Population Welfare.

Standards

New contraceptives will be used only after successful clinical trials have been conducted in Pakistan.

All of the concerned health care providers will be trained in the procedure and in management of side effects before introducing any new contraceptives into the programme.

Services meeting high standards of quality will be made available in the clinics/centres for providing the new contraceptives and dealing with their side effects.

Barrier Methods

Cervical Barrier (Lea's Shield®)

Features

Lea's Shield was approved by the U.S. Food and Drug Administration in March 2002. It is a reusable cervical barrier made of medical grade silicone rubber. Lea's Shield has the same shape as the cervical cap and it also contains a valve in the centre and a loop at the anterior end to facilitate removal.



Mode of Action

It acts by preventing sperm from entering the cervix.

Effectiveness

The first year failure rate is 9–14 percent. The failure rate varies by parity and concurrent use of spermicides.

Women choosing Lea's Shield as a contraceptive method require a clinician's assistance and instructions during the first use; it is therefore available by prescription only.

For maximum effectiveness, Lea's Shield should be inserted into the vagina anytime before intercourse and should be left in for 8 hours after intercourse.

The shield should never be left in the vagina for more than 48 hours.

It should be properly cleaned and stored for future use.

Fitting this device is quite simple. The user needs guidance from a clinician to understand how to use it. The woman inserts Lea's Shield after listening to the clinician's instructions. The clinician then checks to see if the cervix is covered, the loop fits behind the symphysis, and the woman is comfortable. Once the client is comfortable and is able to insert the device correctly, she can continue using it independently.

Combined Hormonal Contraceptives

The combined hormonal contraceptive methods introduced recently include:

- Yasmin®: a combined oral contraceptive pill (COC) with a newer progestin, drospirenone

- NuvaRing®: a contraceptive vaginal ring
- Ortho Evra®: a transdermal contraceptive patch
- Seasonale®: an oral contraceptive pill taken in a 12-week regimen

All of these methods contain both oestrogen and progesterone, with daily dosage either less than or the same as in COCs. The mechanism of action, advantages, limitations, indications, usage, side effects, complications, and the time for starting these methods are similar to COCs, with a few exceptions.

Yasmin® Pill

Features

Yasmin, a COC, is available in a 28-pill package and was approved by the U.S. Food and Drug Administration in May 2001. Each active tablet contains a newer progestin, drospirenone 3 mg, and oestrogen-ethinyl estradiol, 30 mcg.



Effectiveness

More than 1 million women have used Yasmin to date, with a failure rate of 1–5 percent.

Advantages and Limitations

Apart from being highly effective, safe, and well-tolerated:

- Yasmin provides excellent cycle control with low incidence of breakthrough bleeding and spotting, particularly after the third cycle.
- Blood pressure, lipids, glucose, electrolytes, and haematology values stayed within the normal ranges in the majority of women during the clinical trials. The other advantages of Yasmin are the same as those for currently available COCs.
- Women having hepatic dysfunction, renal insufficiency, or adrenal insufficiency should not take Yasmin.
- Women taking nonsteroidal anti-inflammatory agents, other drugs such as naproxen, potassium-sparing diuretics (spironolactone), acetyl cholinesterase inhibitors, angiotensin II receptor antagonists, and heparin should not take Yasmin. The counselling guidelines and instructions for use of Yasmin and the adverse reactions are same as for other COCs.

Vaginal Ring (NuvaRing®)

Features

In October 2001, the U.S. Food and Drug Administration approved NuvaRing, a vaginal contraceptive ring. NuvaRing is a non-biodegradable, flexible, colourless ring made of a polymer of ethylene vinyl acetate and magnesium stearate.



The outer diameter of the ring is 54 mm and the cross-sectional diameter is 4 mm. The ring contains 11.7 mg of etonogestrel and 2.7 mg of ethinyl estradiol. It releases 120 mcg of etonogestrel and 15 mcg of ethinyl estradiol every day.

How to Use

The ring is left in place for 3 weeks, followed by 1 ring-free week. The ring can be inserted any time during the first 5 days of the menstrual cycle. The ring should be placed in the vagina even if the woman has not finished bleeding, and she should use a backup contraceptive method for 7 days. A new ring should be inserted each month. If the ring comes out during the first 3 weeks of use, it should be washed with lukewarm water and placed again. If the ring-free interval is more than 3 hours, a backup contraceptive method should be used for 7 days. The ring should never be left in the vagina for more than 4 weeks. If left in for more than 4 weeks, pregnancy should be ruled out before inserting a new ring, and the woman should use a backup contraceptive method for 7 days after inserting a new ring.

Advantages and Limitations

- NuvaRing has many advantages. Some are common to COCs and some are unique to the ring.
- Vaginal rings are highly effective as they result in complete suppression of ovulation.
- The steady release of hormones provides exceptional cycle control.
- It is easily inserted and removed by the woman herself.
- Rapid return of fertility on discontinuation makes it a highly acceptable method for the woman and her spouse.
- Because the hormones are absorbed directly into the blood through the vaginal mucosa, the hepatic first pass metabolism of progestin is prevented.
- The ring delivers the lowest dose of ethinyl estradiol as compared to other combined hormonal contraceptives.
- The NuvaRing does not protect against STIs and HIV/AIDS.

Transdermal Patch (Ortho Evra®)

Features

The U.S. Food and Drug Administration approved a contraceptive patch in November 2001. The patch is applied on the skin, through which the hormones are absorbed. The patch is marketed with the brand name Ortho Evra.



The patch is 4.5 square cm in size and has three layers: the inner release liner, which should be removed before application, a layer containing hormones, and an outer polyester protective layer. The patch contains 6 mg of progestin, norelgestromin (also called 17-acetylnorgestimate) and 0.75 mg of ethinyl estradiol. The patch releases 120 mcg of norelgestromin and 20 mcg of ethinyl estradiol every day.

Advantages and Limitations

The patch has many advantages over COCs.

Mode of Action

It provides a steady release of hormones resulting in complete suppression of ovulation.

Effectiveness

It is highly effective, with a first year failure rate of 1–2 percent.

How to Use

It can be easily applied on the skin and has been found to be a highly acceptable method among clients.

The patch is very simple and easy to use and women do not require any assistance.

Women weighing more than 198 pounds should not use the patch, as the effectiveness of the patch is reduced in these women.

The user can easily verify the presence of patch, which can reassure her of continued protection.

Method of Use

The patch is applied to clean, dry, intact healthy skin on the buttocks, abdomen, outer arm, or upper torso, but not to the breasts.

The first patch should be applied within the first 5 days of the menstrual cycle, or otherwise be sure that the client is not pregnant and uses backup

contraception should be used for 7 days. A new patch should be applied every week for 3 weeks followed by 1 patch-free week.

If the patch falls off for any reason, a new patch should be applied as soon as possible but within 48 hours. No backup contraception is required. The patch does not fall off easily. Heat, humidity, and exercise do not affect adhesion. The patch may detach completely in up to 2–6 percent of all patches used.

Under no circumstances should the patch-free interval go beyond 7 days between cycles. If this happens, pregnancy should be ruled out before applying a new patch, and a backup method used for 7 days or the option of emergency contraceptive pills should be considered.

In case of skin irritation, the patch should be removed and a new patch applied at a different location until the next change day.

Seasonale®

Features

Seasonale is the continuous birth control pill. It is taken just like the regular active/hormonal pill, continuously for 3 months, and then with inactive pills for 1 week after that. The client will have periods four times in a year.



Advantages

- Fewer periods.
- Lighter periods with less blood flow.
- Some women with menstrual migraines or headaches benefit because they have fewer or less intense periods.

Limitations

- It must be taken daily.
- It does not protect against sexually transmitted infections (STIs).
- It can be difficult for women to be sure they are not pregnant without a monthly period.
- There are some health risks similar to those with all birth control pills:
 - Blood clots, stroke, and heart attack.
 - Cigarette smoking with age above 35 increases the risk of serious side effects.

How to Use

- Like traditional birth control pills, the series of pills contains synthetic hormones, oestrogen, and progestin, which are taken daily to prevent the client from ovulating (releasing an egg to be fertilized). Instead of a true menstrual period that occurs 2 weeks after ovulation, the client will get a “pill period” that may be lighter than a regular period.
- Unlike traditional birth control pills that require 21 days of active pills followed by 7 days of inactive pills, Seasonale allows the woman to take “active” pills continuously for 3 months. During this time, Seasonale prevents the uterine lining from thickening enough to produce a full menstrual period. Every 3 months, the client will take 1 week of inactive pills to produce a “pill period” that may be lighter than a regular period.
- When the client takes continuous birth control pills, she should expect to have four menstrual periods per year (bleeding when she is taking the seven white pills). However, she will have more bleeding and spotting between menstrual periods than if she were taking a traditional birth control pill with a 28-day treatment cycle.
- For most effective use, the client should take the pill at the same time each day.

Intrauterine Contraceptive Devices

Yuangong IUCD

Features

The Yuangong IUCD is an intrauterine contraceptive device. It is made with high-quality stainless steel and highly pure copper. This IUCD has been designed to suit the shape and dynamics of the uterus, and the content of the material assures safe, long-term use without degeneration. Each of the IUCDs (220 IUCD, 300 IUCD, and 365 IUCD) is available in three different sizes—large, medium, and small—and is impregnated with indomethacin, a nonsteroidal anti-inflammatory drug (NSAID).

Characteristics of Yuangong IUCD

- Made of stainless steel wire, which is easily compatible with the human body.
- Capable of placement in the uterus for more than 20 years without aging and degeneration.
- Possesses moderate elasticity.
- Pure copper is released inside.
- Thread-less.
- No effect on sexual life.
- Easy insertion and removal.

- With impregnation of indomethacin, pain/bleeding and other side effects are reduced.

Advantages

- It springs to the uterine fundus when inserted.
- It cannot be easily displaced or expelled.
- It returns to its original shape when the uterus relaxes.

Limitations

- Uterine cramps and/or abdominal pain may occur.
- Nulliparous women are more prone to syncope, bradycardia, and other neurovascular episodes during or immediately after insertion or removal of this IUCD.
- Breakthrough bleeding and/or spotting often occurs during the first cycle and may recur for several subsequent cycles.
- Increased duration of menstruation and an increase in menstrual blood loss may occur, especially during the first few cycles.
- Dysmenorrhoea may occur or be aggravated.
- Does not protect against HIV infection or any of the STIs.

Contraindications

- Pregnancy or when there is a possibility of pregnancy
- Inflammation of the genitalia, such as acute and chronic pelvis infection, vaginitis, acute cervicitis, and severe cervical erosion
- Heavy or irregular uterine bleeding
- Endometriosis
- Uterine cavity is less than 5.5 cm
- Severe dysmenorrhoea, tumour of the female genitalia tract, and severe uterine deformity
- In patients with untreated STIs or those who have not yet recovered from the infection
- In patients with history of ectopic pregnancy, women with severe vagus reflex, or who fainted during uterine operation

Implants

Jadelle®

Features

Jadelle is an implant system that provides effective, long-acting, reversible contraception for women. Two thin, flexible rods made of silicone tubing and filled with levonorgestrel, a synthetic progestin, are inserted just under the skin of a woman's upper, inner arm in a minor surgical procedure. Jadelle has two rods and is effective for 5 years.



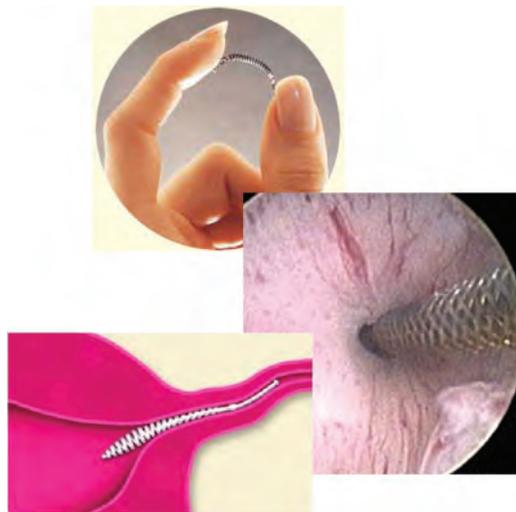
Female Sterilization

Essure™

Features

Essure is a new method of female sterilization that uses the transcervical approach. It was approved by the U.S. Food and Drug Administration in November 2002.

The Essure micro-insert consists of a stainless steel inner coil, a nitinol super-elastic outer coil, and polyethylene (PET) fibres. The coil is placed into the uterine end of the fallopian tube using hysteroscopy technique. The micro-insert is 4 cm in length and 0.8 mm in diameter in its wound-down configuration. When released, the outer coil expands to 1.5–2 mm in diameter to anchor the micro-insert in the varied diameters and shapes of the fallopian tube.



Effectiveness

In clinical trials, Essure was 99.8 percent effective after 2 years of follow-up. Women were back to their regular activities typically in 1–2 days post-procedure.

Mode of Action

The micro-insert remains anchored in the fallopian tube and results in tubal occlusion eliciting a tissue in-growth. The PET fibre mesh and the micro-insert act as scaffolding into which the tissue grows, anchoring the micro-insert within the fallopian tube and occluding the tube. The remaining parts of the tubes are

normal. The larger diameter of the micro-insert at the uterine end prevents its migration towards the peritoneal cavity.

Limitations

- Essure requires a trained provider to perform the procedure in a special setting.
- Most of the side effects and complications are related to poor insertion techniques.
- Failure to correctly place the micro-inserts in the fallopian tubes may result in expulsion.

How to Use

Essure comes with a disposable delivery system. The system consists of a single-handed ergonomic handle containing the delivery wire, release catheter, delivery catheter, and micro-inserts. Essure can be inserted in a hospital or outpatient setting. Using Essure does not require any incision on the abdominal skin, and so there is no scar. The micro-inserts are inserted into the uterine cavity during hysteroscopy, and no general anaesthesia is required for the procedure. The procedure is completed in 30 minutes, and the client can go home 45 minutes after the procedure.

It takes up to 12 weeks for the tissue in-growth to completely occlude the fallopian tubes. Clients need to use a backup contraceptive method for 3 months. To confirm the tubal occlusion on both sides, a hysterosalpingogram should be done at the end of 12 weeks.

Male Methods

Male Hormonal Methods

Many methods that act by inhibiting spermatogenesis are currently under development. For example:

- Exogenous progestin or gonadotrophin-releasing hormone (GnRH) antagonist to suppress follicle-stimulating hormone (FSH) and luteinizing hormone (LH), thereby decreasing spermatogenesis.
- Exogenous testosterone (injectable, patch, or implant) combined with a slow-release progestin implant.

Non-Hormonal Methods

- Anti-sperm compounds, e.g., gossypol from cottonseed oil and triptolide.
- Immuno-contraception methods based on interference of the reproductive process by products of an immune reaction.
- Temporary sterilization by injecting the vas deferens with a polymer to block sperm transport.

POSTPARTUM FAMILY PLANNING

Introduction

The role of postpartum family planning (PPFP) in improving the health of mothers and babies (see Chapter 3 on Healthy Timing and Spacing of Pregnancy [HSTP]) and in decreasing both maternal and neonatal mortality rates is well documented. A wide range of contraceptive methods is appropriate for postpartum women and can be safely used by even the breastfeeding mother. Systematic and routine provision of family planning (FP) counselling in the antenatal and postpartum periods has been shown to be critically important to the timely initiation of FP following childbirth, miscarriage, and abortion.

About 30 percent of all married women of reproductive age in Pakistan currently use any contraceptive method, with use of modern methods at only 22 percent.¹ Among 15- to 19-year-old married women, less than one in 10 uses any contraception. An analysis of data on 2,093 postpartum women from the *Pakistan Demographic and Health Survey* found that 64 percent of women in the first year postpartum had a prospective unmet need for FP.² Prospective unmet need is defined as a postpartum woman's reported desired timing for the next pregnancy. Prospective unmet need analysis yields higher rates of unmet need than are observed if the woman is asked only about the preceding birth. Only 22 percent were using any method of FP during the first year postpartum, and only 12 percent of women desired another birth in the next 2 years.

Policy

All pregnant and postpartum women—including women who are post-miscarriage or postabortion—should have access to FP counselling and services.

¹ National Institute of Population Studies (NIPS) [Pakistan], and Macro International Inc. 2008. *Pakistan Demographic and Health Survey 2006–07*. National Institute of Population Studies and Macro International Inc.: Islamabad.

² Borda M. 2009. *Family Planning Needs during the Extended Postpartum Period in Pakistan*. ACCESS-FP Program: Baltimore, Maryland.

To ensure timely initiation of an FP method appropriate to the woman's breastfeeding status and fertility intentions, FP counselling (including information about HTSP) should be provided systematically to pregnant women and their families wherever they receive medical care: FP clinics, antenatal clinics, birthing facilities, postpartum and postnatal care facilities, and other facilities like Basic Health Units and Family Welfare Centres where mothers and children receive routine health care. Basic postpartum FP care and services should:

- Promote HTSP.
- Encourage exclusive breastfeeding and the lactational amenorrhoea method (LAM).
- Counsel on return to fertility.
- Offer a wide range of contraceptive choices.
- Integrate FP with other maternal and child health programs, including childhood immunization and the prevention of mother-to-child transmission of HIV (PMTCT).

Standards

The following standards will be observed:

- The client should be given full information and receive counselling about:
 - Available FP methods and HTSP during pregnancy.
 - Available FP methods and HTSP following childbirth, miscarriage, or abortion.
 - Breastfeeding and LAM during pregnancy and following childbirth.
 - Transitioning to another FP method when no longer using LAM.
- The client's right to make a free and informed choice regarding eventual family size and fertility will be respected.
- **Note:** A wide range of FP methods including long-acting and permanent methods should be available in birthing facilities and other sites where postpartum and postnatal services are offered to mothers and babies. An appropriate postpartum/postabortion FP method should be prescribed and distributed to the client at her request.

Overview of Postpartum/Postnatal Family Planning

Postpartum/postnatal contraception is the initiation and use of FP methods during the first year after childbirth or after a miscarriage/abortion. When used to describe the period after childbirth, the postpartum/postnatal period is generally divided into the following four categories:

- **Post-placental**—Within the first 10 minutes after delivery of the placenta
- **Immediate postpartum**—Within 48 hours after delivery

- **Early postpartum**—From 48 hours up to 6 weeks after delivery
- **Extended postpartum**—From 6 weeks up to 1 year after delivery

Healthy Timing and Spacing of Pregnancy

Following are the three components of HTSP:

- After a live birth, the recommended minimum interval before attempting the next pregnancy is at least 24 months (but not more than 5 years) in order to reduce the risk of adverse maternal, perinatal, and infant outcomes.
- After a miscarriage or induced abortion, the recommended minimum interval before attempting the next pregnancy is at least 6 months in order to reduce the risk of adverse maternal and perinatal outcomes.
- Delay timing of the first pregnancy in adolescents until age 18 to reduce the risk of adverse maternal, perinatal, and infant outcomes.

Delaying vs. Spacing vs. Limiting

Family planning interventions postpartum can be divided into three broad categories:

- **Delaying:** Family planning for the woman who is too young or not yet ready to start having children.
- **Spacing:** Family planning for the mother who either plans to have more children or is not sure what her final family size will be.
- **Limiting:** FP for the mother who plans to have no more children. Approaches to limiting include both reversible and irreversible methods.

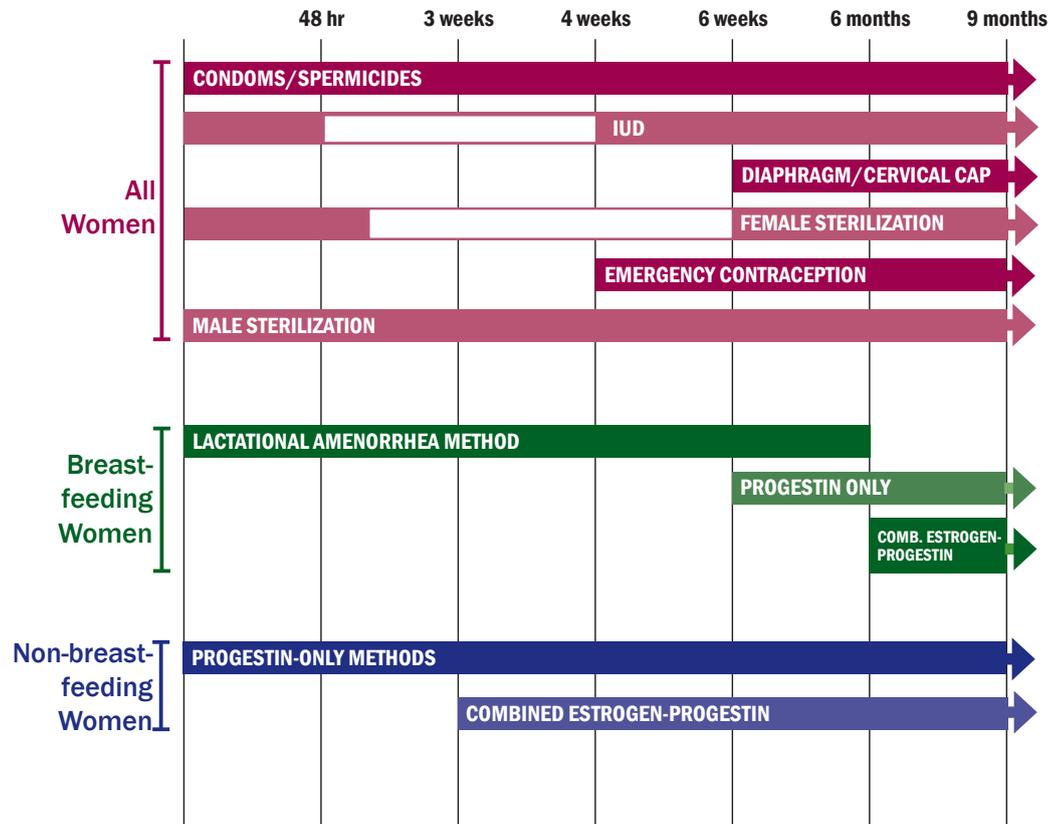
Return of Fertility Postpartum

The return of fertility postpartum is unpredictable and can occur before menses returns. PPFPP counselling with selection of an appropriate method by the client ideally occurs during pregnancy and/or shortly after childbirth.

- For breastfeeding women:
 - The period of infertility is longer for women who practice exclusive or nearly exclusive breastfeeding. After 6 months, when the infant is taking complementary foods and breastfeeds less, return of fertility becomes unpredictable and ovulation may occur prior to menses.
- For non-breastfeeding women:
 - Menses will resume on an average of 4–6 weeks after delivery. Most women will ovulate before menstruation occurs.
- For women after miscarriage or abortion:
 - Ovulation may occur as early as 2 weeks after a miscarriage or abortion.

Family Planning Methods for Postpartum Women

Figure 15-1. Initiation of Family Planning Methods



Source: Georgetown University, Institute for Reproductive Health, and Jhpiego. 2009. *Lactational Amenorrhea Method (LAM): A Learning Resource Package for Family Planning Service Providers and Trainers*. Georgetown University: Washington, D.C.

Lactational Amenorrhea Method

LAM is a temporary method of contraception linked to breastfeeding and is more than 98 percent effective in preventing pregnancy. The essential criteria for LAM effectiveness are:

- Baby is less than 6 months old, and
- Menses has not resumed, and
- Baby is exclusively breastfed.

Women using LAM should transition to another FP method by 6 months postpartum or whenever other LAM criteria are no longer met. Transitioning should be discussed at every counselling visit. Studies have shown that women who use LAM are more likely to use a modern method of contraception at 6–12 months postpartum.

LAM can be used in combination with other FP methods to enhance effectiveness including the postpartum intrauterine contraceptive device (IUCD), progestin-only pills/injectables/implants, and barrier methods such as condoms and spermicide.

Postpartum women should be specifically counselled that if any component of LAM is not met—the baby is older than 6 months *or* menstrual flow has returned *or* the baby is no longer exclusively breastfed—immediate transition to another FP method is advised.

“Fully breastfeeding” includes both exclusive breastfeeding (the infant receives no other liquid or food, not even water, in addition to breast milk) and almost-exclusive breastfeeding (the infant receives vitamins, water, juice, or other nutrients once in a while in addition to breast milk).

Intrauterine Contraceptive Devices

There are several points during the postpartum period when an IUCD may be inserted in breastfeeding or non-breastfeeding women:

- **Postplacental insertion:** Within 10 minutes after delivery of the placenta.
- **Immediate postpartum insertion:** Within 48 hours of delivery of the placenta.
- **Trans-cesarean insertion:** During cesarean section, after the uterine cavity has been explored manually and following delivery of the placenta.
- **Interval insertion:** At 4–6 weeks postpartum.
- **Postplacental, immediate postpartum, and trans-cesarean insertion of the IUCD** is generally performed using a long placental forceps, and requires a provider with specific training in postpartum insertion. Proper insertion technique is important in order to avoid expulsion. Training in interval insertion is not adequate because the insertion technique is completely different.
- **Note:** Only copper-containing IUCDs may be inserted within 48 hours of delivery. **Insertion of the levonorgestrel IUCD (LNG-IUD) should be deferred until at least 4 weeks after delivery in breastfeeding mothers.**
- Postpartum insertion of the IUCD should not be attempted in the presence of haemorrhage or puerperal sepsis (infection of the reproductive organs during the first 6 weeks postpartum).
- Postplacental IUCD insertion does not interfere with or change the steps of active management of third stage of labor.
- Interval insertion at 4 weeks postpartum is performed using an inserter with the “no-touch” technique and requires a provider with specific training in interval insertion. Training in postpartum insertion is not adequate. The inserter that comes with the copper-containing IUCD is never used to perform insertions in the postplacental or immediate postpartum period.

- Insertion of the IUCD is not recommended between 48 hours and 4 weeks postpartum because of an increase in the risk of perforation and infection. (World Health Organization Medical Eligibility Criteria category 3)
- Insertion technique following miscarriage or abortion varies by trimester. **First-trimester miscarriage or abortion** may be followed by immediate insertion of the IUCD using an inserter with “no-touch” technique and requires a provider with specific training in interval insertion. **Second-trimester miscarriage or abortion** may be followed by immediate insertion of the IUCD using a ring or other long forceps and requires a provider with specific training in postpartum insertion. If a specifically trained provider is not available, insertion after second-trimester miscarriage or abortion should be delayed for at least 4 weeks.
 - If the IUCD is inserted within 12 days after first- or second-trimester abortion or miscarriage, there is no need for a backup method.
 - An IUCD may be inserted more than 12 days after first- or second-trimester miscarriage or abortion only if it is reasonably certain the client is not pregnant, with no need for a backup method.
 - If an abortion-related infection of the uterus (septic abortion) is present, treat or refer appropriately and help the client choose another method. If she still wants the IUCD, it can be inserted after the infection has completely cleared up.

Female Sterilization

Postpartum tubal ligation may be performed with proper counselling and consent in breastfeeding and non-breastfeeding women:

- Immediately after childbirth
- During cesarean section
- Within 7 days postpartum
- Six weeks or more after childbirth
- Within 48 hours after uncomplicated abortion

Female sterilization should be considered permanent and irreversible. Ideally, counselling for postpartum female sterilization should be provided as a routine part of antenatal care. Antenatal FP counselling will give the client time to reflect and weigh her options so that she is fully prepared to have the procedure immediately postpartum.

Condoms and Spermicide

- Women and their husbands should be advised to abstain from sexual intercourse until any vaginal or perineal lacerations have completely healed and the mother feels rested and ready. Condoms with spermicide can then

be used by both breastfeeding and non-breastfeeding mothers and their partners.

- Use of other barrier methods, such as diaphragms or cervical caps, should be delayed for at least 6 weeks postpartum.

Hormonal Contraception

Progestin-Only Pills, Injectables, and Implants

- Non-breastfeeding mothers may start any progestin-only method immediately/at any time after delivery.
- For breastfeeding mothers, progestin-only methods are not introduced until at least 6 weeks postpartum, once breastfeeding is well-established and the milk supply is adequate.
- When used consistently and correctly, progestin-only methods add to the contraceptive effect of breastfeeding and are 99 percent effective at preventing pregnancy in breastfeeding mothers.
- Available evidence indicates that progestin-only contraception has no proven effect on breast milk volume or on infant growth.
- Irregular vaginal bleeding in the form of spotting is the most common side effect associated with progestin-only methods and does not indicate contraceptive failure.
- Progestin-only methods can be given to women immediately after abortion or miscarriage at their request.

Progestin-Only Pills (POPs)

- Breastfeeding women may start POPs at 6 weeks postpartum without a backup method. POPs may be given to the client before discharge from the hospital postpartum with instructions to start 6 weeks after delivery.

Progestin-Only Injectables (PICs)

- Breastfeeding women may start injections at or after 6 weeks postpartum.
- Women at high risk of getting pregnant before 6 weeks postpartum and who request PICs should be advised to delay the first injection until breastfeeding is fully established, usually by day 21 postpartum.

Progestin-Only Implants

- Breastfeeding women may have implants inserted 6 weeks postpartum.

Combined Hormonal Contraception (Oestrogen and Progestin): Injectables, Pills

- Non-breastfeeding mothers may start combined hormonal contraception as early as 3 weeks postpartum.

- Breastfeeding mothers should delay initiation of combined hormonal contraceptive methods until at least 6 months postpartum. Oestrogen may decrease breast milk production but has not been shown to be harmful to the breastfeeding infant in any other way.
- Breastfeeding women should be advised that combined hormonal methods can be used without restriction from 6 months postpartum.
- If breastfeeding is established and other contraceptive methods are contraindicated, combined hormonal methods may be considered.
- Combined hormonal contraceptive methods can be given to women immediately after first- or second-trimester miscarriage or abortion.
- Emergency contraceptive pills may be used as early as 4 weeks after childbirth regardless of breastfeeding status.

Integration of Postpartum Family Planning Services: Missed Opportunities

Postpartum FP can be offered during:

- **Antenatal care:** Women should be counselled about important options prior to birth if they are to make a good decision concerning PFP, especially regarding methods that are provided during the immediate postpartum period.
- **Childbirth care:** FP counselling and method provision should be systematically offered as a part of the full scope of childbirth services. In Pakistan, 57 percent of women who had received FP counselling and leaflets prior to discharge from the maternity unit had started using a modern contraceptive method by 8–12 weeks postpartum. However, only 6 percent of women who did not receive this information prior to discharge were using a contraceptive by 8–12 weeks postpartum.³
- **Postpartum care:** FP counselling and method provision should be systematically offered at every postpartum visit as a routine part of the full scope of postpartum/postnatal services.
- **Well baby/well child care,** including immunization clinics: The only contact a woman may have with the health care system after birth may be the care she obtains for her baby and other children. Well baby/well child care clinics offer an important opportunity for reinforcing LAM and responding to women with an unmet need for FP.
- **Sick baby care:** The illness of a baby may be the only time a woman encounters a health care provider.
- **PMTCT care:** HIV-positive women may want to space or limit pregnancies. Pregnancy spacing is especially important for HIV-positive women on

³ Saeed GA et al. 2008. Change in trend of contraceptive uptake: Effect of educational leaflets and counseling. *Contraception* 77(5): 350–354.

antiretroviral therapy. FP services should be routinely offered wherever PMTCT services are available.

- **Family planning and reproductive health care:** A woman may seek FP services at any time after her baby is born.
- **Postabortion care:** FP counselling and method provision should be offered routinely before and after procedures and during treatment for complications.

Studies have shown that FP counselling is most effective when provided at **more than one point** during a woman's pregnancy and childbirth cycle. PFP should be a routine part of maternal, newborn, and child health care across the continuum of a woman's childbearing cycle.

RTIs/STIs, HIV/AIDS, AND HEPATITIS

Introduction

This chapter deals with minimizing the risk of spreading reproductive tract infections (RTIs), sexually transmitted infections (STIs), HIV/AIDS, and hepatitis B. To minimize this risk and care for clients effectively, the health care provider should be knowledgeable about these diseases and their management.

Health care providers can play a pivotal role in preventing the spread of RTIs/STIs, HIV/AIDS, and hepatitis, and treating clients suffering from these infections. It is therefore important that they be able to identify these cases, give advice on preventive measures, and suggest how they can be managed.

Reproductive Tract Infections

Reproductive tract infections are a group of infections affecting the reproductive system and can lead to diseases affecting the reproductive tract (e.g., pelvic inflammatory disease) that have both immediate (e.g., tubo-ovarian abscess) and long-term (e.g., infertility) consequences. They include STIs, non-sexually transmitted infections like endogenous infections caused by the overgrowth of the organisms normally present in the reproductive tract, and iatrogenic infections caused by medical procedures when infection control is poor.

Sexually Transmitted Infections

STIs are infections that are spread from one person to another by sexual contact, and can lead to sexually transmitted diseases with both acute and long-term consequences.

Policy

After incorporating the recommendation of the ICPD (International Conference on Population Development, Cairo, 1994), in the ninth Five Year Plan, a package

of comprehensive Reproductive Health Services was prepared to be offered in the service outlets of all health and population welfare programmes as well as private facilities. Facilities for screening and managing RTIs/STIs will be made available to all clients and preventive health education will be offered.

Standards

- Clients requiring RTI/STI information and treatment will be provided comprehensive counselling, treatment, and referral, if required.
- All health and family planning (FP) facilities should have information, education, and communication (IEC) materials available along with preventive and curative facilities for the common RTIs/STIs.
- No client will be denied treatment on the basis of his/her HIV status.

Classification of RTIs/STIs

Several types of organisms cause STIs. Those caused by organisms such as bacteria generally can be successfully treated with the correct antibiotic regimen. STIs caused by viruses are not responsive to antibiotics but can be prevented in some cases through vaccination (e.g., hepatitis B) or their symptoms can be relieved by medications.

Table 16-1. Classification of Reproductive Tract and Sexually Transmitted Infections

Sexually Transmitted Infection	Type	Organism	Sexual Transmission	Non-Sexual Transmission	Treatable
Chancroid	Bacterial	Haemophilus ducreyi	Vaginal, anal, and oral sex	None	Yes
Chlamydia	Bacterial	Chlamydia trachomatis	Vaginal and anal sex, rarely from genitals to mouth	From mother to child during delivery	Yes
Gonorrhoea	Bacterial	Neisseria gonorrhoea	Vaginal and anal sex, or contact between mouth and genitals	From mother to child during delivery	Yes
Hepatitis B	Viral	HBV	Vaginal and anal sex, or from penis to mouth	In blood, from mother to child during delivery or in breast milk	No*

Sexually Transmitted Infection	Type	Organism	Sexual Transmission	Non-Sexual Transmission	Treatable
Herpes	Viral	Herpes simplex virus type-II	Genital or oral contact with an ulcer, including vaginal and anal sex; also genital contact in area without ulcer	From mother to child during pregnancy or delivery	No
HIV	Viral	Human immunodeficiency virus	Vaginal and anal sex, very rarely oral sex	In blood, from mother to child during pregnancy or delivery or in breast milk	No
Genital warts	Viral	Human papillomavirus (HPV)	Skin-to-skin and genital contact or contact between mouth and genitals	From mother to child during delivery	Yes**
Syphilis	Bacterial	Treponema pallidum	Genital or oral contact with an ulcer, including vaginal and anal sex	From mother to child during pregnancy or delivery	Yes
Trichomoniasis	Parasite	Trichomonas vaginalis	Vaginal, anal, and oral sex	From mother to child during delivery	Yes
Candidiasis	Fungal	Candida albicans	Vaginal, anal, and oral sex	No	Yes
Bacterial vaginosis	Bacterial	Mycoplasma hominis	Vaginal, anal, and oral sex	No	Yes
Granuloma inguinale	Bacterial	C. granulomatis	Vaginal, anal, and oral sex	No	Yes
Lymphogranuloma venereum (LGV)	Bacterial	C. trachomatis	Vaginal, anal, and oral sex	No	Yes

* Can be prevented by vaccination.

** Some of the manifestations of genital warts can be treated by medical or surgical means.

Strategies for Control

Strategies for RTI/STI control as recommended by the World Health Organization (WHO) are as follows:

- **Strategy 1: Use male or female condom correctly with every act of sex:**
 - One method that helps protect against pregnancy and STIs, including HIV.
- **Strategy 2: Use condoms consistently and correctly, plus another FP method:**
 - Adds extra protection from pregnancy in case a condom is not used or is used incorrectly.
 - May be a good choice for women who want to be sure to avoid pregnancy but cannot always count on their partners to use condoms.
- **Strategy 3: If both partners know they are not infected, use any FP method to prevent pregnancy and stay in a mutually faithful relationship:**
 - Many FP clients will fall into this group and thus are protected from STIs, including HIV.
 - Depends on communication and trust between partners.

Role of the Health Care Provider

STIs are common, and cause much suffering and disability. All health care providers have a responsibility to do what they can to prevent and treat STIs. The providers should recognize signs of STIs and either promptly treat or refer for treatment.

Women who currently have an STI indicative of gonococcal or chlamydial origin are likely to be at higher risks for these infections and should not use IUCDs. Providers should diagnose and treat STIs before inserting an IUCD. During the treatment period, the couple should be provided with an option to use alternative contraceptive methods.

Men and women who have several sex partners have more chances of getting STIs. Sex workers and the clients of sex workers are most likely to get STIs. Female sex workers also usually want to avoid pregnancy, so they may come to health care providers for contraceptives.

Protocol for Treatment

- History taking
- Examination
- Counselling
- Management and follow-up

History Taking

During history taking and examination for RTIs/STIs, it is important to win the client's trust to obtain all necessary information. The session should be conducted in privacy and in a non-judgemental manner. Four sets of information are needed:

- General history
- Medical history
- Present illness
- Sexual history

The Five Ps of Sexual History:

1. Partner (Spouse)
2. Prevention of pregnancy
3. Protection from RTIs/STIs
4. Practices
5. Past history of RTIs/STIs

1. **Partner (Spouse)**

When assessing sexual risk, it is important to determine the number of sexual contacts a client has had. If the client has had multiple contacts, there is a need to explore for specific risk factors such as other contacts, injecting drug use, history of STIs, and drug use with sex. If the client has no partner other than her/his spouse, the health care provider should ask about the length of the relationship and the spouse's risk, such as other contacts and injecting drug use.

2. **Prevention of pregnancy**

Based on the information about a male partner (see above), the health care provider can determine if the spouse is at risk of becoming pregnant. If this is the case, the health care provider should determine if the pregnancy is desired.

3. **Protection from RTIs/STIs**

Through discussion, the health care provider should explore different issues such as condom use, monogamy/polygamy, client self-perception of risk, and perception of spouse's risk.

4. **Practices**

If the client has had more than one partner in the past year, the health care provider may want to further explore the client's sexual practices and condom usage. Asking about other sex practices will guide risk reduction strategies and help in identifying anatomical sites from which to collect specimens for STIs testing.

5. Past history of RTIs/STIs

A history of gonorrhoea or chlamydia increases a person's risk of repeated infection. STIs in the recent past indicate higher risk behaviour.

Examination

It includes skin examination as well as pelvic examination in females; examination of vulva, anus, and perineum; and palpation of the inguinal region for enlarged lymph nodes. In males, the genital, inguinal, and perianal regions are examined.

Counselling

People who seek treatment for a suspected STI constitute a very important target group for education and counselling for prevention of RTIs/STIs. Those who are actually diagnosed with an RTI/STI may be more receptive to advice. They now have proof that "it can happen to me", not only to others. This is a valuable opportunity to communicate with them about the risk of HIV/AIDS infection and how to avoid future RTIs/STIs.

Preventing STIs

People can avoid STIs by changing their sexual behaviour. They can follow any of the ABCD: **A**bstain, **B**e mutually faithful, **C**onsistently Use **C**ondoms (and **D**o not share needles).

Abstain from sex.

Or

Be mutually faithful.

Or

Consistently use condoms.

And

Do not share needles/blades/razors.

The Four Basic Health Education Messages

In syndromic management of RTIs/STIs, the following messages are a must in counselling the patients and/or their partner(s):

- Comply with treatment.
- Practice safe sex behaviour.
- Use condoms for prevention of both pregnancy and STIs.
- Manage partner.

There is no standard order in which these messages should be delivered. However, patients tend to be most responsive to messages related to their own cure, followed by the treatment of those close to them, for instance a spouse. There is often a lack of interest in discussing the long-term consequences of STIs, especially the risk of acquiring or transmitting HIV and the behavioural changes required for preventing its spread.

WELL Method

Good RTI/STI counselling should include the “WELL” method of communication to make RTI/STI clients comfortable and let them know that we want to help them.

W= Welcome the Clients

Greet the clients warmly and offer them a seat. Sit close enough to them so that they can talk comfortably and privately. Have a welcoming tone in the voice.

E= Encourage the Clients to Talk

Encourage clients to talk by looking at them as they speak, by asking questions, by nodding as they speak, by saying “Mmm, Hmmm” or “Tell me more about that”, etc.

L= Look at the Clients

Looking at the clients as they speak helps them to talk comfortably. Make sure the provider has a warm and friendly facial expression.

L= Listen to the Clients

Listen carefully to what the clients have to say.

In counselling someone who thinks that she/he may have an STI, tell the person to do the following:

- Get diagnosed and treated immediately. Many STIs can be treated and cured, especially in their early stages. Some, such as HIV and herpes, cannot be cured, but sometimes their effects can be stopped for a time.
- Take all of the medicine according to the instructions, even if symptoms go away. Inform the client that the medicines can cause some side effects such as vomiting, diarrhoea, or a rash. If any of these side effects occur and are severe, the person must return to the clinic that provided the medicine.
- Avoid sex with anyone until 3 days after treatment is finished *and* all symptoms are gone to prevent spread.
- Get treatment for his/her spouse also so that both can get treated. Unless all sex partners are treated at the same time, they will infect each other again and again. It is especially important that a man informs his female partner. This is because many women do not have symptoms until the STI has reached a more serious stage.
- Pregnant woman should visit an antenatal clinic within the first 3 months of pregnancy for a physical exam and syphilis test to protect the unborn child.

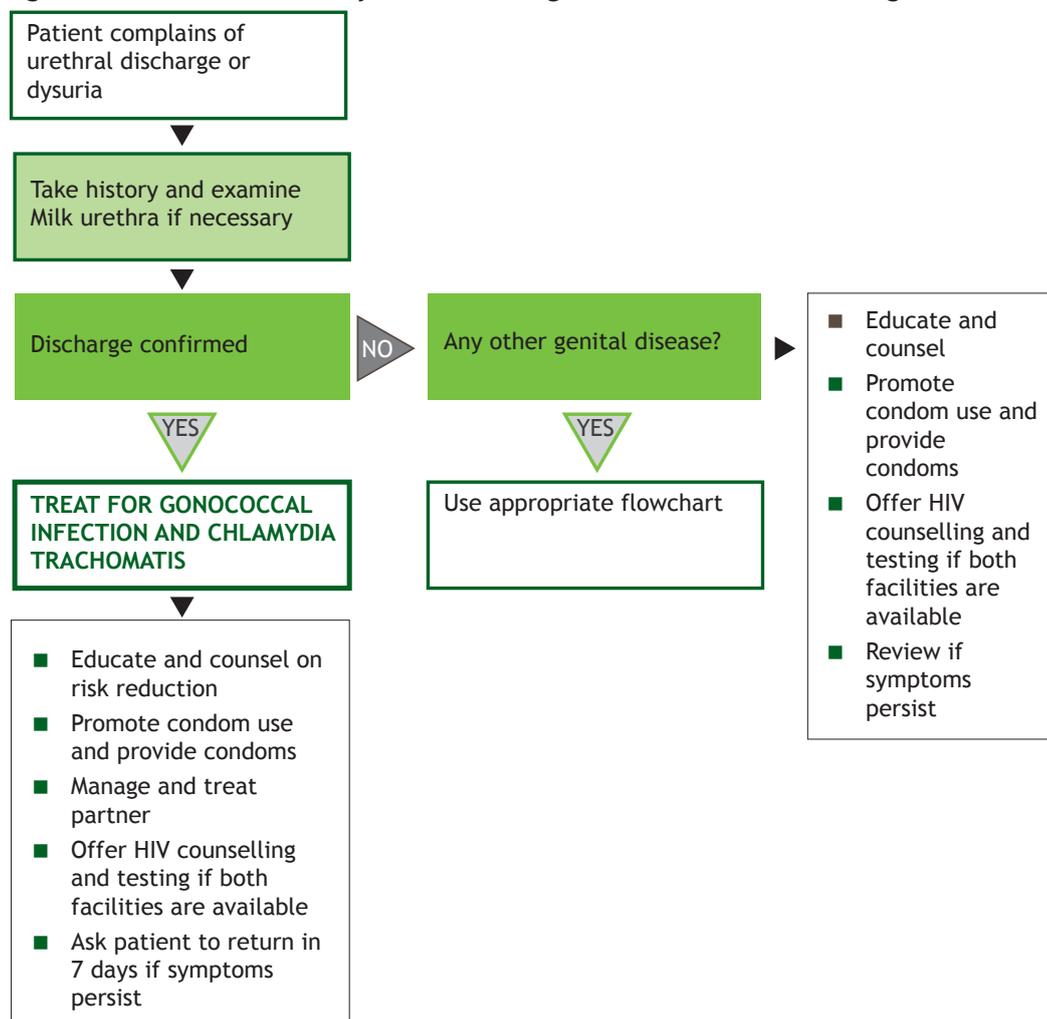
Management: The Syndromic Approach

Ideally, each case of RTI/STI should be properly diagnosed and appropriate treatment should be given according to the diagnosis. But this may not be possible in most of the areas of the world. WHO endorses simple and effective regimes and tools to be used in the situations where standard laboratory tests to identify RTIs/STIs are expensive and require equipment that is generally unavailable to clinics in those areas or countries.

The primary screening approach developed, syndromic management, diagnoses infection based on the presence of symptoms of the disease rather than on laboratory tests. A syndrome is a collection or group of symptoms that the patient complains of; the health care provider observes the signs of these symptoms when examining the patient. Depending on the signs, the health care provider may manage the patient by using a simple flowchart or algorithm. This management approach is acceptable, feasible, and cost-effective in most settings.

Following are flowcharts for the management of the symptoms of RTIs/STIs, based on the “syndromic approach”.

Figure 16-1. Flowchart for Syndromic Management of Urethral Discharge



Treatment Options for Urethral Discharge

Treatment Options for Gonorrhoea

- Ciprofloxacin, 500 mg orally, as a single dose
OR
- Ceftriaxone, 125 mg by intramuscular injection, as a single dose

OR

- Cefixime, 400 mg orally, as a single dose

OR

- Spectinomycin, 2 g by intramuscular injection, as a single dose

Note:

- Ciprofloxacin is contraindicated in pregnancy, and is not recommended for use in children and adolescents.
- There are variations in the anti-gonococcal activity of individual quinolones, and it is important to use only the most active.

Treatment Options for Chlamydia

- Doxycycline, 100 mg orally, twice daily for 7 days

OR

- Azithromycin, 1 g orally, in a single dose

Alternative Regimen

- Amoxicillin, 500 mg orally, three times a day for 7 days

OR

- Erythromycin, 500 mg orally, four times a day for 7 days

OR

- Ofloxacin, 300 mg orally, twice a day for 7 days

OR

- Tetracycline, 500 mg orally, four times a day for 7 days

Note:

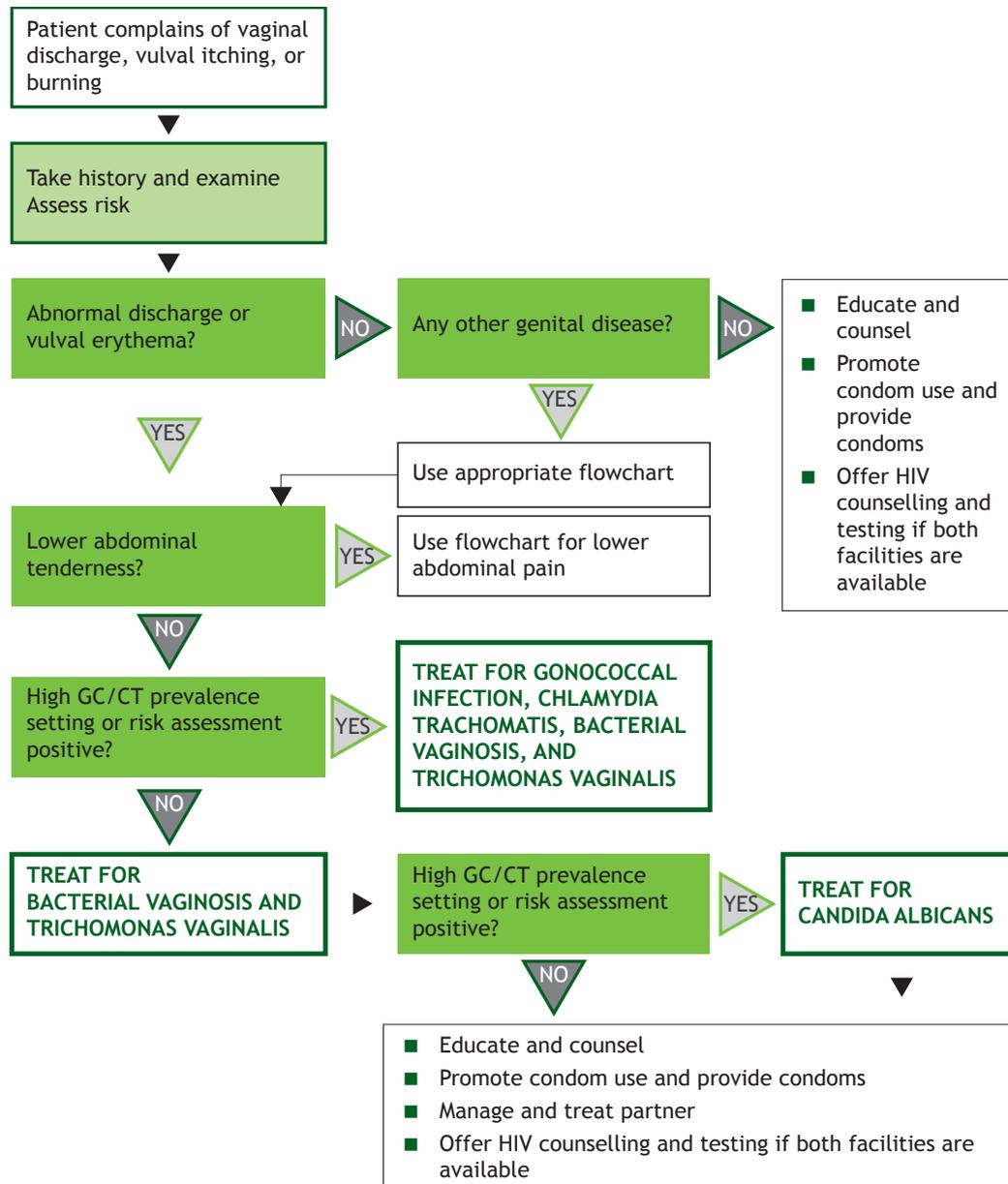
- Doxycycline and other tetracyclines are contraindicated during pregnancy and lactation.
- Current evidence indicates that 1 g single-dose therapy of Azithromycin is efficacious for chlamydial infection.
- There is evidence that extending the duration of treatment beyond 7 days does not improve the cure rate in uncomplicated chlamydial infection.
- Erythromycin should not be taken on an empty stomach.

Note:

- WHO recommends that, where possible, single-dose therapy be used.

The Syndromic Management of Vaginal Discharge

Figure 16-2. Flowchart for Syndromic Management of Vaginal Discharge



Treatment Options for Vaginal Discharge

Treatment Options for Cervical Infection

- Therapy for uncomplicated gonorrhoea (refer to urethral discharge)
PLUS
- Therapy for chlamydia (refer to urethral discharge)

Treatment Options for Vaginal Infection, Trichomoniasis

- Metronidazole, 2 g orally, in a single dose
OR
- Tinidazole, 2 g orally, in a single dose

Note:

- The reported cure rate in women ranges from 82–88 percent, but may be increased to 95 percent if sexual partners are treated simultaneously.

Alternative Regimen

- Metronidazole, 400 mg or 500 mg orally, twice daily for 7 days
OR
- Tinidazole, 500 mg orally, twice daily for 5 days

Note:

- Other 5-nitroimidazoles are also effective, both in single- and in multiple-dose regimens.
- Patients taking metronidazole or other imidazoles should be cautioned not to consume alcohol while they are taking the drug, and for up to 24 hours after taking the last dose.
- Metronidazole is generally not recommended for use in the first trimester of pregnancy.
- Asymptomatic women with trichomoniasis should be treated with the same regimen as symptomatic women.

Treatment Options for Bacterial Vaginosis

- Metronidazole, 400 mg or 500 mg orally, twice daily for 7 days

Alternative Regimen

- Metronidazole, 2 g orally, as a single dose
OR
- Clindamycin 2 percent vaginal cream, intravaginally, at bedtime for 7 days

Pregnant Women

- Metronidazole, 200 or 250 mg orally, three times daily for 7 days, after first trimester
- Metronidazole 2 g orally, as a single dose, if treatment is imperative during the first trimester of pregnancy

Candidiasis

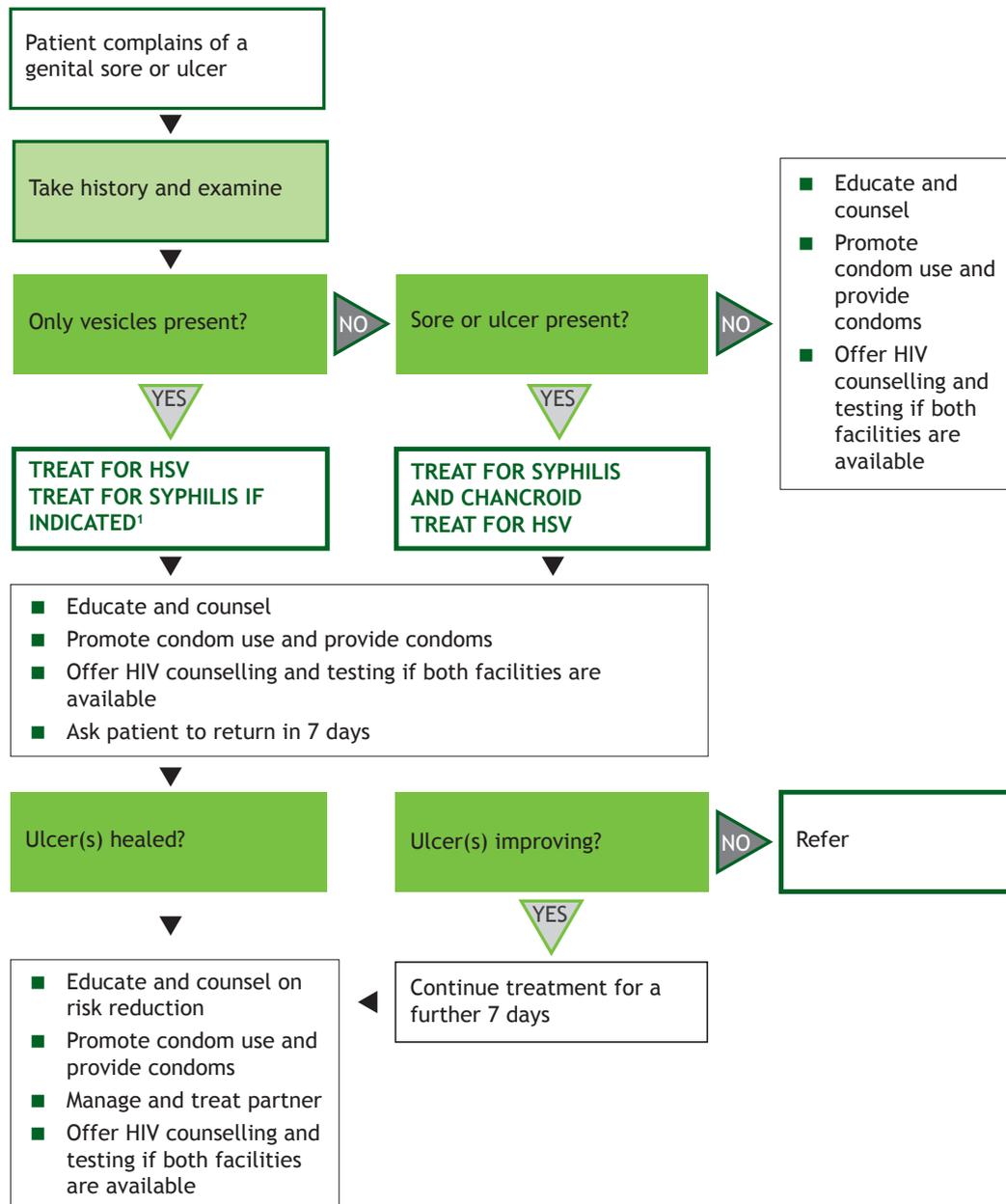
- Miconazole or Clotrimazole, 200 mg intravaginally, daily for 3 days
OR
- Clotrimazole, 500 mg intravaginally, as a single dose
OR
- Fluconazole, 150 mg orally, as a single dose

Alternative Regimen

- Nystatin, 100,000 IU intravaginally, daily for 14 days

The Syndromic Management of Genital Ulcers

Figure 16-3. Flowchart for Syndromic Management of Genital Ulcers



1. Indications for syphilis treatment:

- RPR-positive; and
- Patient has not been treated for syphilis recently.

2. Treat for HSV where prevalence is 30 percent or higher, or adapt to local conditions.

¹ Benzathine benzylpenicillin synonyms: Benzathine penicillin G; benzylpenicillin Benzathine; Benzathine penicillin.

Treatment Options for Genital Ulcers

Treatment Options for Syphilis

- Benzathine benzylpenicillin¹ 2.4 million IU by intramuscular injection, at a single session. Because of the volume involved, this dose is usually given as two injections at separate sites.

Alternative Regimen

- Procaine benzylpenicillin² 1.2 million IU by intramuscular injection, daily for 10 consecutive days

Alternative Regimen for Penicillin-allergic, Non-pregnant Patients

- Doxycycline, 100 mg orally, twice daily for 14 days
OR
- Tetracycline, 500 mg orally, four times daily for 14 days

Alternative Regimen for Penicillin-allergic, Pregnant Patients

- Erythromycin, 500 mg orally, four times daily for 14 days

Treatment Options for Chancroid

- Ciprofloxacin, 500 mg orally, twice daily for 3 days
OR
- Erythromycin base, 500 mg orally, four times daily for 7 days
OR
- Azithromycin, 1 g orally, as a single dose

Alternative Regimen

- Ceftriaxone, 250 mg by intramuscular injection, as a single dose

Treatment Options for Granuloma Inguinale

- Azithromycin, 1 g orally on first day, then 500 mg orally, once a day
OR
- Doxycycline, 100 mg orally, twice daily

Alternative Regimen

- Erythromycin, 500 mg orally, four times daily
OR
- Tetracycline, 500 mg orally, four times daily
OR
- Trimethoprim 80 mg/sulfamethoxazole 400 mg, two tablets orally, twice daily for a minimum of 14 days

² Procaine benzylpenicillin synonyms: procaine penicillin G.

Note:

- Treatment should be continued until all lesions are epithelialized.

Treatment Options for Lymphogranuloma Venereum (LGV)

- Doxycycline, 100 mg orally, twice daily for 14 days
OR
- Erythromycin, 500 mg orally, four times daily for 14 days

Alternative Regimen

- Tetracycline, 500 mg orally, four times daily for 14 days

Note:

- Tetracyclines are contraindicated in pregnancy.
- Fluctuant lymph nodes should be aspirated through healthy skin. Incision and drainage or excision of nodes may delay healing. Some patients with advanced disease may require treatment for longer than 14 days, and sequelae such as strictures and/or fistulae may require surgery.

Treatment Options for Genital Herpes

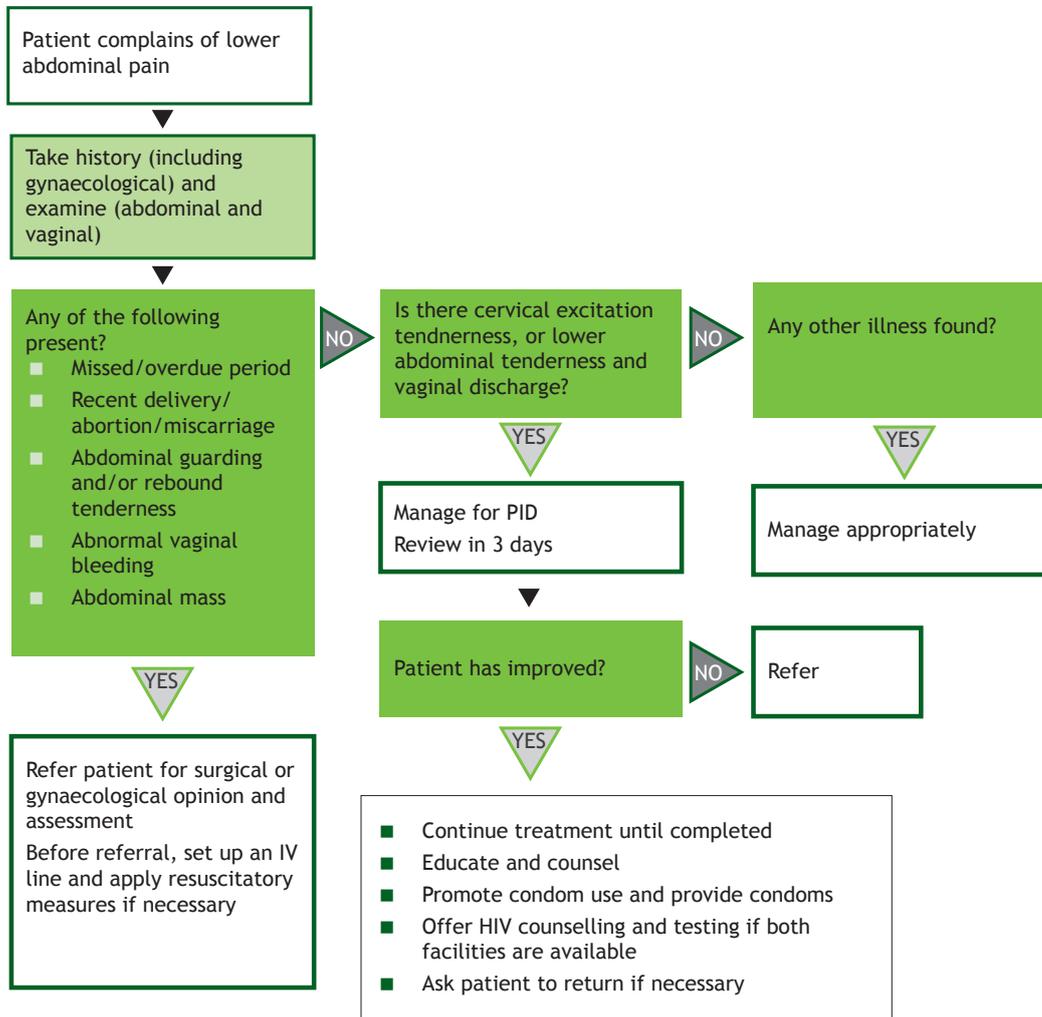
- Acyclovir, 200 mg orally, five times daily for 7 days
OR
- Acyclovir, 400 mg orally, three times daily for 7 days
OR
- Valaciclovir, 1 g orally, twice daily for 7 days
OR
- Famciclovir, 250 mg orally, three times daily for 7 days

Note:

- The decision to treat for chancroid, granuloma inguinale, or LGV depends on the local epidemiology of the infections.
- Specific treatment for herpes genitalis is recommended as it offers clinical benefits to most symptomatic patients. Health education and counselling regarding the recurrent nature of genital herpes lesions, the natural history, sexual transmission, probable perinatal transmission of the infection, and available methods to reduce transmission are an integral part of genital herpes management.

The Syndromic Management of Lower Abdominal Pain

Figure 16-4. Flowchart for Syndromic Management of Lower Abdominal Pain



Treatment Options for Lower Abdominal Pain

Recommended Syndromic Treatment

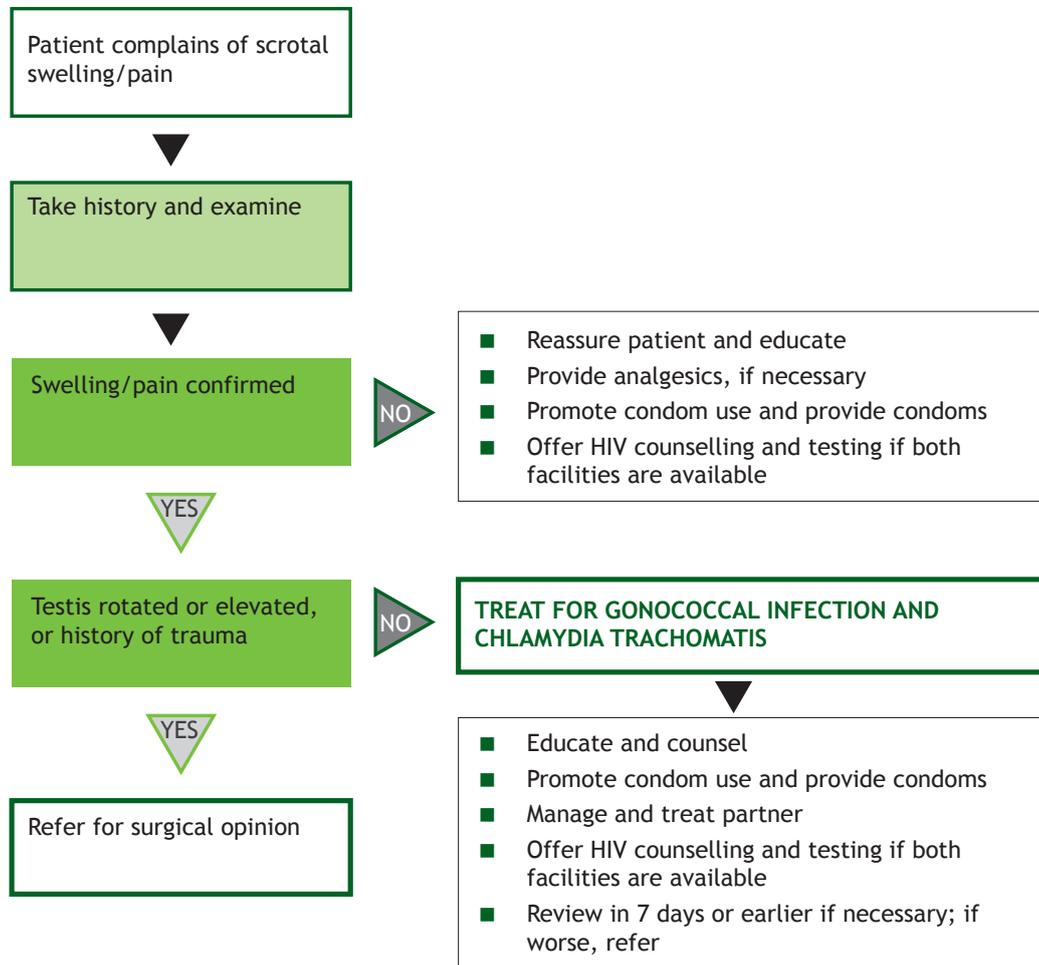
- Single-dose therapy for uncomplicated gonorrhoea
PLUS
- Doxycycline, 100 mg orally, twice daily, or tetracycline, 500 mg orally, four times daily for 14 days
PLUS
- Metronidazole, 400–500 mg orally, twice daily for 14 days

Note:

- Patients taking Metronidazole should be cautioned to avoid alcohol.
- Tetracyclines are contraindicated in pregnancy.

The Syndromic Management of Scrotal Swelling

Figure 16-5. Flowchart for Syndromic Management of Scrotal Swelling



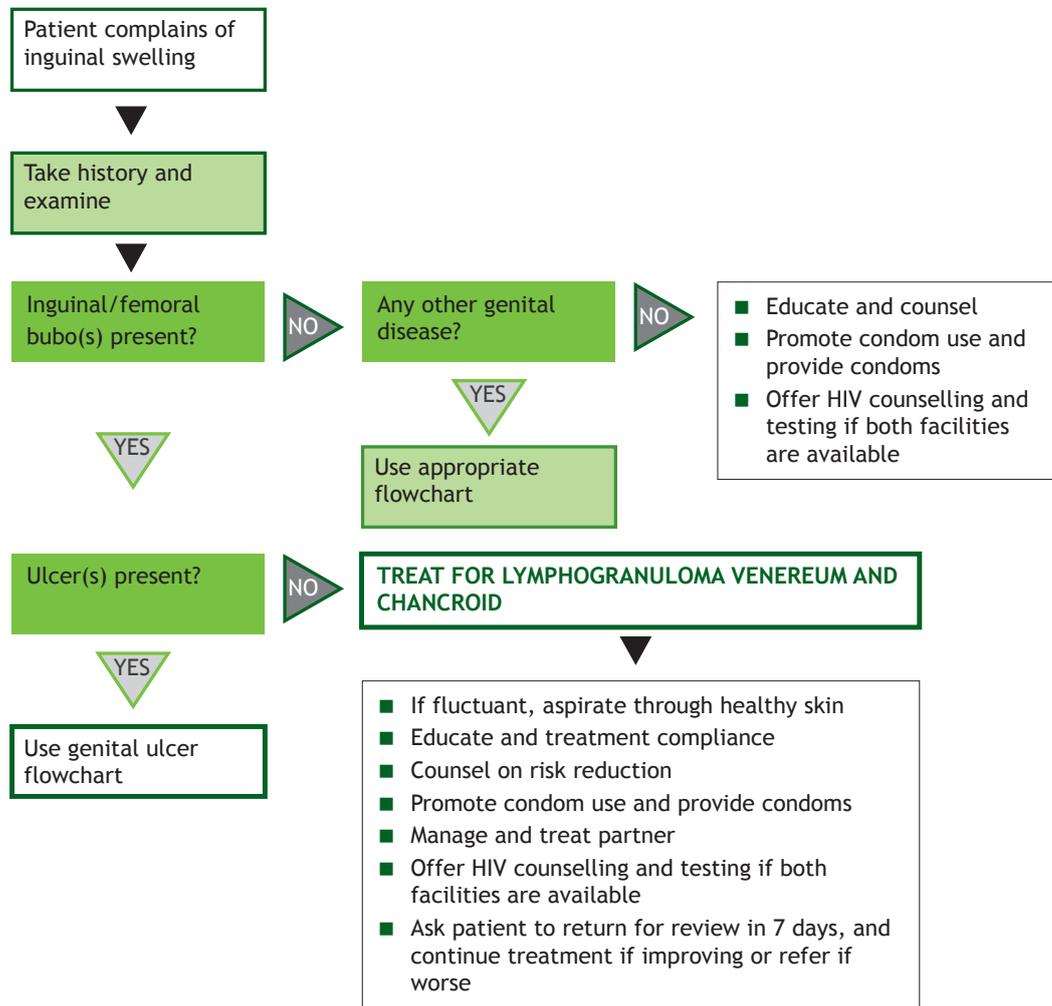
Treatment Options for Scrotal Swelling

Recommended Syndromic Treatment

- Therapy for uncomplicated gonorrhoea (refer to urethral discharge)
PLUS
- Therapy for chlamydia (refer to urethral discharge)

The Syndromic Management of Inguinal Bubo

Figure 16-6. Flowchart for Syndromic Management of Inguinal Bubo



Treatment Options for Inguinal Bubo

Recommended Syndromic Treatment

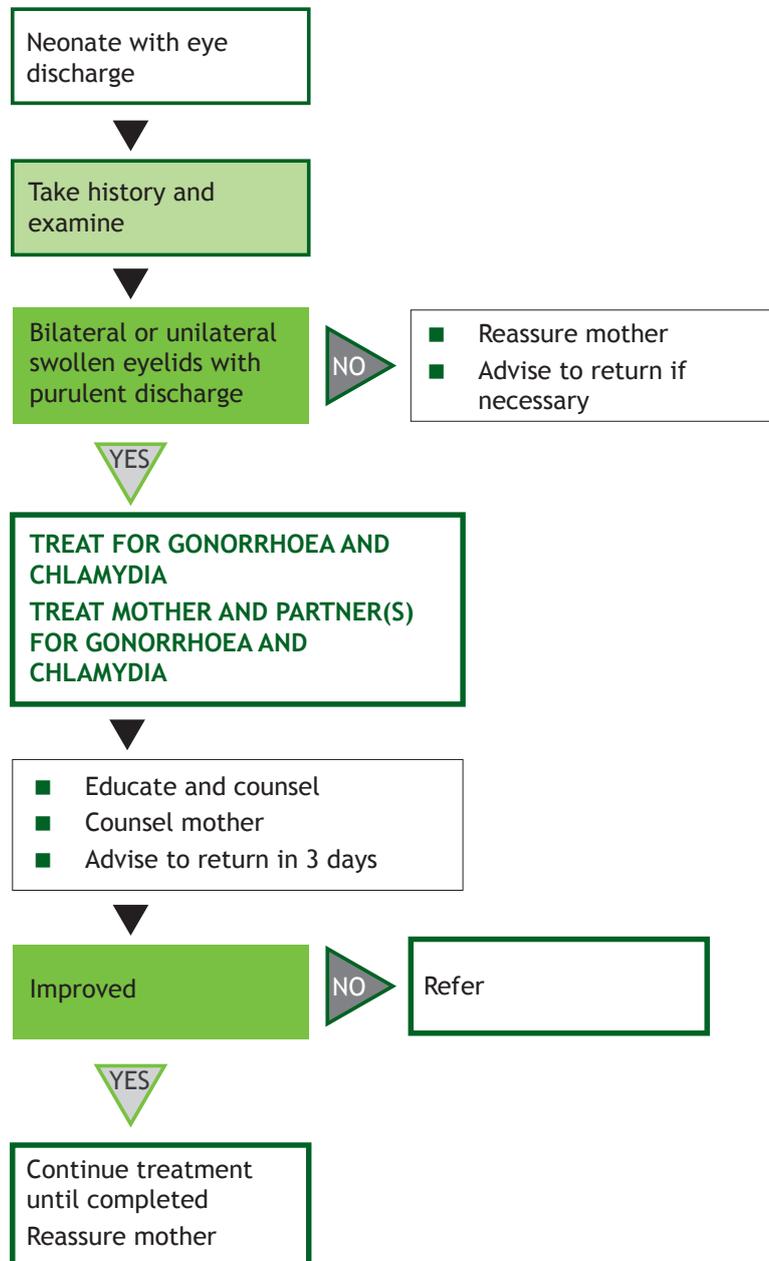
- Ciprofloxacin; 500 mg orally, twice daily for 3 days
AND
- Doxycycline, 100 mg orally, twice daily for 14 days
OR
- Erythromycin, 500 mg orally, four times daily for 14 days

Note:

- Some cases may require longer treatment than the 14 days recommended above. Fluctuant lymph nodes should be aspirated through healthy skin. Incision and drainage or excision of nodes may delay healing and should not be attempted. Where there is doubt and/or treatment failure, referral for diagnostic biopsy is advisable.

The Syndromic Management of Neonatal Conjunctivitis

Figure 16-7. Flowchart for Syndromic Management of Neonatal Conjunctivitis



Treatment Options for Neonatal Conjunctivitis

Recommended Syndromic Treatment

- Ceftriaxone, 50 mg/kg by intramuscular injection, as a single dose, to a maximum of 125 mg

Alternative Regimen where Ceftriaxone Is Not Available

- Kanamycin, 25 mg/kg by intramuscular injection, as a single dose, to a maximum of 75 mg

OR

- Spectinomycin, 25 mg/kg by intramuscular injection, as a single dose, to a maximum of 75 mg

Note:

- Single-dose Ceftriaxone and Kanamycin are of proven efficacy. The addition of Tetracycline eye ointment to these regimens is of no documented benefit.

HIV/AIDS

Acquired immuno-deficiency syndrome (AIDS) is an infectious disease, caused by the human immuno-deficiency virus (HIV), in which the body's defense system is destroyed, resulting in the failure of the body to fight infections. The disease in its final stage is known as AIDS.

AIDS is a very serious STI with no vaccine presently available; primary prevention is the only tool to control HIV/AIDS. Hence it is very important to know the mode of transmission and the preventive measures, and how to identify and detect early and counsel and refer patients for treatment and management.

Stages of HIV/AIDS Infection

- **Initial Stage:** In this stage of the disease most (60 percent) of the patients remain asymptomatic. But in a few cases the patient may develop flu-like symptoms after 1–3 weeks. The fever in these cases may continue from 1–3 weeks.
- **Window Period:** The HIV/AIDS virus takes about 3–6 months for antibodies to become detectable in the blood, from the time of entering the body. This period is called the window period.
- **Asymptomatic HIV/AIDS Infection:** In some cases, the person may remain in the carrier stage for up to 15 years without developing any signs/symptoms.
- **Symptomatic Stage, AIDS:** Of the HIV/AIDS carriers, about 50 percent after 8 years and 60 percent after 15 years develop full-blown AIDS.

Clinical Features

AIDS is suspected if two of the major and one of the minor signs are present.

Major Signs

- Weight loss (10 percent of body weight)
- Recurrent/prolonged fever lasting more than 1 month
- Chronic diarrhoea lasting more than 1 month
- Painful genital ulcer

Minor Signs

- Persistent cough lasting more than 1 month
- Purplish-blue skin rash that does not disappear
- Thrush in mouth or throat
- Swollen lymph nodes
- Deteriorating blisters and ulcers from herpes spreading beyond the lips and genitals

Transmission of HIV/AIDS

HIV is spread when blood, semen, or vaginal fluids of an infected person come in contact with the blood or body fluid, through a breach in the mucous membrane or the skin, of another person.

Modes of Transmission

- Through sexual intercourse, the virus can pass from men to women or vice versa in heterosexuals, and from men to men in homosexuals, or through any other form of sex where a breach of the mucous membrane or the skin occurs.
- Contaminated blood transfusion or infected blood or blood products can transmit the virus in 90 percent of cases.
- Contaminated needles, sharps, razors, and other skin-piercing instruments can pass the virus in 5–10 out of 1,000 cases. Therefore, drug addicts who share needles are at risk.
- Vertical transmission from an infected mother to her baby can occur during pregnancy or during delivery, or even after birth while nursing. Almost 10 percent of the HIV/AIDS cases in the world are children, most of whom acquired the infection from their infected mothers.
- Although HIV can be transmitted through breast milk, WHO still encourages breastfeeding in the developing world, because a baby's chances of dying from malnutrition outweigh those of dying from HIV/AIDS infection.

High-Risk Behaviours

- Having sex with more than one partner or with a spouse who has other partners (commercial sex workers), without using condoms
- Taking infected blood or blood products
- In childbirth, when the virus passes from an infected mother to the child
- Sharing contaminated needles and syringes

Behaviours through Which HIV Does Not Spread

- Talking, sneezing, coughing, or through air
- Insect bite
- Shaking hands with or embracing an infected person
- Sharing a toilet or swimming pool with an infected person
- Playing or eating together
- Sharing towels or clothes
- Living together with or taking care of a person with HIV/AIDS, or going to the same school as an infected person
- Having sex with a mutually faithful person who does not have AIDS
- Correct and consistent use of condoms

Treatment

Antiretroviral (ARV) drugs inhibit the replication of HIV. When antiretroviral drugs are given in combination, HIV replication and immune determination can be delayed, and survival and quality of life improved. Symptomatic treatment can be given to ease the symptoms.

Prevention of HIV/AIDS

Through the Acronym AIDS

- A=** Avoiding unprotected sex with more than one partner
- I=** Information or education
- D=** Drug abuse—avoid
- S=** Safe blood transfusion

Promoting Safe Medical Practices

- Processing (decontamination, cleaning, and sterilization) of all needles, syringes, and surgical instruments
- Strict application of infection prevention measures
- Destruction of all disposable supplies
- Performing blood transfusion only when necessary

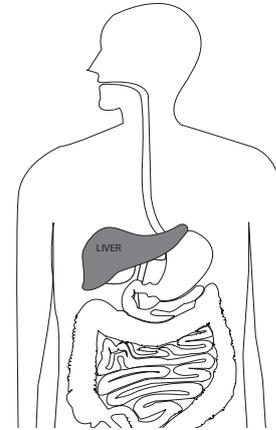
Protecting Health Care Providers

- Wearing gloves for all procedures requiring contact with blood or body fluids.
- Wearing gloves while processing surgical instruments; using sterilized or high-level disinfected instruments.
- Laundering soiled linen properly.

Hepatitis

Hepatitis is an inflammation of the liver that stops it from proper functioning. Several different viruses cause hepatitis. They are named the hepatitis A, B, C, D, and E viruses.

All of these viruses can cause acute, or short-term, viral hepatitis. The hepatitis B, C, and D viruses can also cause chronic hepatitis, in which the infection is prolonged, sometimes lifelong, and in some cases can lead to chronic cirrhosis and liver cancer.



Hepatitis is inflammation of the liver.

Hepatitis B

Liver disease caused by hepatitis B virus (HBV).

Modes of Transmission

- Having contact with an infected person's blood, semen, or other body fluids.
- Having sex with an infected person without using a condom.
- Sharing drug needles.
- Getting a tattoo or body piercing with dirty tools that were used on someone else.
- Getting pricked with a needle that has infected blood on it.
- Sharing a toothbrush or razor with an infected person.
- In the case of an infected mother, transmitting the virus to a child during birth or breastfeeding.

Hepatitis B does not spread by:

- Shaking hands with an infected person.
- Hugging an infected person.
- Sitting next to an infected person.

Prevention

A person can get vaccinated against hepatitis B.

Hepatitis B vaccine is given through three shots. All babies should get the vaccine. Infants get the first shot within 12 hours after birth. They get the second shot at age 1–2 months, and the third shot between the ages of 6 and 18 months.

Older children and adults can get the vaccine, too. They get three shots over 6 months. Children who have not had the vaccine should get it. A person needs all of the shots to be protected from hepatitis B. If a person misses one (or two) of

the three shots, s/he should go to the doctor or clinic right away to set up a new appointment.

One can also protect oneself and others from hepatitis B by:

- Using a condom at time of sexual intercourse.
- Not sharing drug needles with anyone.
- Wearing gloves if one has to touch anyone's blood or body fluids.
- Not using an infected person's toothbrush, razor, or anything else that could have blood on it.
- Tattooing or body piercing only with clean tools.

Hepatitis C

An infection of the liver caused by the hepatitis C virus (HCV), which is found in the blood of persons who have the disease.

Modes of Transmission

Hepatitis C is spread by:

- Having contact with an infected person's blood.
- Sharing drug needles.
- Getting pricked with a needle that has infected blood on it.
- Being born to a mother with hepatitis C.
- Getting a tattoo or body piercing with unsterilized, dirty tools.
- Receiving a blood transfusion with infected blood or an organ transplant without screening for hepatitis C.
- Having sex with an infected person, especially if he/she or his/her partner has other STIs.



One could get hepatitis C by sharing drug needles.

Hepatitis C does not spread by:

- Shaking hands with an infected person.
- Hugging an infected person.
- Kissing an infected person.
- Sitting next to an infected person.

Contraceptives for Clients with STIS, HIV/AIDS

People with STIs or HIV/AIDS or who are on antiretroviral therapy (ART) can start and continue to use most contraceptive methods safely. There are a few limitations. However, in general, contraceptives and ARV medications do not interfere with each other. It is not certain whether some ARV medications make low-dose hormonal contraceptives less effective. Even if they do, condom use can make up for that.

Condoms

When used consistently and correctly, condoms provide almost 100 percent protection against STIs, HIV, and AIDS.

Intrauterine Contraceptive Devices (Copper-Bearing or Hormonal IUCDs)

Do not insert an IUCD in a woman who is at very high individual risk for gonorrhoea and chlamydia, or who currently has gonorrhoea, chlamydia, purulent cervicitis, or PID. (A current IUCD user who becomes infected with gonorrhoea or chlamydia or develops PID can safely continue using an IUCD during and after treatment.) A woman with HIV can have an IUCD inserted. A woman with AIDS should not have an IUCD inserted unless she is clinically well on ART. (A woman who develops AIDS while using an IUCD can safely continue using the IUCD.) Do not insert an IUCD if the client is not clinically well.

Female Sterilization

If a client has gonorrhoea, chlamydia, purulent cervicitis, or PID, delay sterilization until the condition is treated and cured. Women who are infected with HIV, have AIDS, or are on ART can safely undergo female sterilization. Special arrangements are needed to perform female sterilization on a woman with AIDS. Delay the procedure if she is currently ill with AIDS-related illness.

Vasectomy

If a client has scrotal skin infection, an active STI, or swollen, tender tip of the penis, sperm ducts, or testicles, delay sterilization until the condition is treated and cured. Men who are infected with HIV, have AIDS, or who are on ART can safely undergo vasectomy. Special arrangements are needed to perform vasectomy on a man with AIDS. Delay the procedure if he is currently ill with AIDS-related illness.

Oral Pills, Injectables, and Implants

STI clients can safely use contraceptive pills, injections, and implants. These do not affect the course of disease and are without any harmful effects or interaction with the medicines being taken.

MALE AND FEMALE INFERTILITY

Introduction

Despite a high fertility rate in Pakistan, approximately 21.9 percent of couples in the country suffer from infertility.

Infertility is considered primarily a women's problem, and the role that men play in conception is often overlooked. Infertility thus creates psychological, emotional, and social problems for women because they are blamed for not being able to produce children, whereas men are often ready to marry again without seeking medical attention for the causes of possible male infertility.

Infertility is a highly sensitive problem for couples. They may be helped to conceive through counselling/education, diagnosis, and correct guidance for treatment. A proper evaluation can avert much unhappiness, family crises and, in many cases, a marital breakup. This task can be performed by health care providers in the community who can assist in diagnosis, education, and counselling and provide guidance. They should also refer cases of sexual dysfunction, which may be age-related, and are influenced by health and psychosocial factors.

Health care providers should be able to:

- Give the couple moral support and encouragement.
- Counsel couples about infertility.
- Educate couples about possible causes of infertility.
- Take a proper history.
- Do a thorough physical examination.
- Refer couples to infertility centres or specialists.

Role and Responsibilities of Family Planning Services

The evaluation of infertility is directed mainly to the couple but also involves the family and the community. Given the many factors that affect normal fertility, it is important to reassure the couple and manage the expectations of the couple and their families about the many challenges of planning a family and having children.

During the initial evaluation of infertility, it is very important to perform the evaluation of the couple together so they can better understand the important concepts of fertility and fecundability.¹ Counselling should focus on personal and environmental factors that can affect the couple's fertility. Health services must acknowledge the pressure from families and communities to have children. They should also emphasize the need for support from families and the community, especially if infertility is confirmed and further evaluation and treatment need to be performed at a specialized medical centre.

Definitions

Infertility/Fecundity: Failure of a couple to become pregnant after 12 months of regular intercourse without use of contraception.

Secondary Infertility: Failure of a couple to become pregnant after 12 months of regular intercourse without use of contraception among couples who have had a previous pregnancy. Couples wherein either the male or female partner has undergone permanent sterilization, either vasectomy or tubal ligation, are included in this category.

Fertility

Normally, fertile couples who have sexual intercourse without contraception during the fertile period have about a 20 percent chance of conception in each menstrual cycle (fecundability). In each cycle, sexual intercourse during the fertile period and good semen quality improve the chance of becoming pregnant. The fertile period takes place approximately 5–6 days before ovulation, up to the day of ovulation. The greatest chance of becoming pregnant occurs when intercourse happens 1–2 days before ovulation. The quality of semen improves after 2–3 days of absent ejaculation or abstinence. Regular intercourse (approximately two or three times per week) beginning soon after the menstrual period stops increases the chance of becoming pregnant. However, as the time period without becoming pregnant increases, fecundability in the next menstrual cycle decreases.

Fecundability depends on other important factors, including maternal and paternal ages. For example, the chance of becoming pregnant in each age range

¹ Fecundability: Probability of becoming pregnant in a single menstrual cycle.

is shown below (Table 17-1). Couples should consider their ages in planning when to become pregnant and have children.

Table 17-1. Chances of Pregnancy Based on Maternal and Paternal Ages

Age of Female Partner	Age of Male Partner	Chance of Pregnancy
19-26 years	Same age as female partner	50%
27-34 years	Same age as female partner	40%
35-39 years	Same age as female partner	30%
19-26 years	5 years older than female partner	45%
27-34 years	5 years older than female partner	40%
35-39 years	5 years older than female partner	15%

Infertile couples who eventually become pregnant are not more likely to experience miscarriage or stillbirth compared to fertile couples of the same age.

Causes of Infertility

- Unexplained: no identifiable cause (28 percent)
- Male factor (23 percent):
 - Low sperm quality (sperm count, motility, morphology)
 - Hormone abnormalities due to disease or medications that affect the hypothalamus or pituitary gland
 - Disorders of male reproductive organs:
 - Genetic/chromosome abnormalities
 - Cryptorchidism (failure of testicular descent during foetal development)
 - Testicular cancer
 - Varicocele (dilation of veins in the scrotum)
 - Defect in specific hormones and hormone receptors
 - Exposure to tobacco (smoking), infection, specific medications, environmental hazards, and toxins
 - Previous vasectomy (in cases of secondary infertility)
- Female factor (44 percent):
 - Decreased or absent ovulation
 - Pelvic adhesions (due to pelvic inflammatory disease, previous abdominal or pelvic surgery, abdominal or pelvic infections such as appendicitis or pelvic tuberculosis)
 - Abnormalities of female reproductive organs:
 - Endometriosis

- Uterine fibroids and other uterine abnormalities such as uterine septum
- Blockage of fallopian tubes
- Cervical infection and narrowing of the cervix due to cancer or previous surgery
- High prolactin hormone level
- Previous tubal sterilization (in cases of secondary infertility)
- Coital factor: interaction of sperm and cervical mucus (5 percent):
 - Antibodies to sperm

Risk Factors in Both Male and Female Partners

- Older age
- Smoking
- Heavy alcohol use
- Stress
- Infection of reproductive organs, including sexually transmitted infections (STIs)
- Surgery to abdomen and reproductive organs
- Exposure to environmental hazards and toxins including radiation, pesticides, lead, and mercury

Risk Factors in Female Partners

- Oligomenorrhoea (> 6 weeks between each menstrual cycle) or amenorrhoea (absence of menarche by age 16 or absence of menses for more than 6 months in women who were previously menstruating), which leads to decreased or absent ovulation
- Overweight or underweight: optimal BMI is 18.5–25 kg/m² (approximately 50–60 kg for women who are 1.6 meters tall)
- Too much caffeine intake: approximately more than 10 cups of tea or 2 cups of coffee per day
- Too much exercise
- Eating disorders

Initial Approach to an Infertile Couple at the Family Planning Clinic

Couples should be evaluated for infertility together after 12 months of unsuccessful conception despite regular intercourse. Couples over age 35 should be evaluated after 6 months.

Counselling should emphasize normal fertility, including the fertile period, causes of infertility, and ways to improve chances of conception in each menstrual cycle. Couples who continue to have difficulty becoming pregnant should then be evaluated by a trained physician.

Initial Recommendations/Prevention of Infertility

- Have regular intercourse during the fertile period.
- Plan to start having children before 35 years old, if possible.
- Improve body weight.
- Minimize stress.
- Stop smoking.
- Decrease or stop alcohol use.
- Decrease caffeine intake.
- Eliminate exposure to environmental hazards and toxins.
- Avoid exposure to STIs by using condoms and limiting the number of sexual partners.

Secondary Evaluation of an Infertile Couple

The next step in the evaluation of infertility should include a complete medical history and physical examination. This evaluation identifies risk factors that affect the couple and can provide important information about recommendations to increase the couple's chance of becoming pregnant. Men who have had children with a different female partner are less likely to have infertility due to male factors.

The following screening tests may be helpful during the medical evaluation:

- STIs (both male and female partners)
- Polycystic ovarian syndrome (PCOS) (female partner): Polycystic ovary syndrome is a disorder in women characterized by decreased or absent ovulation and increased androgen hormone level (increased hair growth, acne, male pattern balding) with no other known causes for these conditions. Abnormalities in cholesterol levels and insulin resistance (for example, diabetes) are common in women with PCOS.)

- Thyroid disease (female partner): Thyroid disease may cause an increase in prolactin hormone level that can affect ovulation.

Goals of the Medical Evaluation of an Infertile Couple

- Obtain complete medical history of both male and female partners with the following key elements (see Table 17-2).
- Perform physical examination with the following key elements:
 - Male:
 - Confirm appropriate development of male anatomy
 - Assess presence of surgical scars
 - Female:
 - Measure vital signs including height, weight, blood pressure
 - Confirm appropriate development of female anatomy
 - Assess hair growth and pattern, acne (to evaluate potential diagnosis for PCOS)
 - Assess presence of surgical scars
- If infertility is diagnosed based on the couple's history, discuss the following potential concerns:
 - What does infertility mean?
 - What are the potential causes of infertility? Do any of these causes affect the couple?
 - Is there a need for further evaluation? If yes, what additional tests are needed? Should the couple be referred to a specialized medical centre?
 - What are the treatment options? Should the couple be referred to a specialized medical centre?
 - What recommendations can be made at the end of the initial visit? (See "Initial Recommendations/Prevention of Infertility" above.)
- Discuss expectations about chances of successful conception and future pregnancies (if known based on history and examination).
- Provide reassurance regarding the diagnosis and plan of care. Empower the couple by emphasizing what they can do as a next step.

Table 17-2. Key Elements of Medical History to Evaluate a Couple for Infertility

	Components of Medical History
Couple	<ul style="list-style-type: none"> • Do you have any children together? Have you experienced any pregnancy loss, such as miscarriage? • How long have you been attempting to conceive? • How often do you have sexual intercourse?
Male	<ul style="list-style-type: none"> • Medical history: <ul style="list-style-type: none"> – Do you have any medical problems? – Do you take any medications? • Surgical history: <ul style="list-style-type: none"> – Did you ever undergo a vasectomy? • Family history: <ul style="list-style-type: none"> – Is there anyone in the family born with chromosome abnormalities (such as Down syndrome) and congenital anomalies? • Sexual history: <ul style="list-style-type: none"> – Have you fathered a pregnancy? If yes, were these pregnancies with your current partner? What were the outcomes of these pregnancies (live birth, miscarriage, ectopic, induced abortion)? – How many sexual partners do you have currently? Number of previous sexual partners? – Do you have any history of sexually transmitted infections? If yes, when? Were you treated for these infections? • Social history: <ul style="list-style-type: none"> – Do you smoke? If yes, how much?

Components of Medical History	
Female	<ul style="list-style-type: none"> • Medical history: <ul style="list-style-type: none"> – Do you have any medical problems? High cholesterol level, high blood pressure, or heart disease? Diabetes? Thyroid disease? – Do you take any medications? • Surgical history: <ul style="list-style-type: none"> – Did you ever undergo a tubal ligation? – Have you ever had any surgery in your abdomen or vagina? • Family history: <ul style="list-style-type: none"> – Is there anyone in the family born with chromosome abnormalities (such as Down syndrome) and congenital anomalies? • Obstetric history: <ul style="list-style-type: none"> – How many times have you been pregnant? – Do you have any children? – Have you experienced any miscarriages, ectopic pregnancies, or induced abortions? How many? How far along was your pregnancy? – Is your current male partner the father of each of your pregnancies? • Gynaecologic history: <ul style="list-style-type: none"> – How old were you when you began having periods? How often (per month, per year)? Can you predict when your menstrual cycle will begin? – Do you have any history of abnormal Pap smear? If yes, what treatment(s) did you receive? – How many sexual partners do you have currently? Number of previous sexual partners? – Do you have any history of sexually transmitted infections? If yes, when? Were you treated for these infections? • Social history: <ul style="list-style-type: none"> – Do you smoke? If yes, how much? – Do you drink alcohol? If yes, how much? – Do you drink tea, coffee, or other caffeinated drinks? If yes, how much?

Follow-Up

Depending on availability of resources at the local health centre, follow-up may include the following evaluation at a specialized medical centre:

- Semen analysis:
 - A standard semen analysis to evaluate semen quality studies a semen sample that is collected after 2–7 days of abstinence and submitted to a special laboratory within 1 hour of collection. If a low sperm count is found, genetic studies of the male partner may be helpful.
- Assessment of uterus and fallopian tubes:

- Radiologic studies or surgery may be performed to evaluate the female partner's pelvic anatomy to identify potential causes of infertility.
- Assessment of ovulation:
 - Special serum laboratory studies may help in the evaluation of ovarian function.

Treatment Options

- Provision of education and counseling about the fertile days in the menstrual cycle.
- Treatment of medical conditions, including infections, that may affect the couple's fertility
- Surgery for treatment of endometriosis or diseases affecting male and female reproductive organs
- Treatment for decreased or absent ovulation that may include hormone medications
- Assisted reproductive technologies such as in vitro fertilization

CONTRACEPTIVE SECURITY

Introduction

International assistance for family planning (FP) has been shrinking at a time when many FP programmes in developing countries are experiencing shortages of contraceptives. A reliable, adequate supply of good-quality contraceptives, such as IUCDs, oral contraceptive pills, condoms, and injectables, is a critical component of successful FP/reproductive health (RH) programmes. It is also a basic requirement for guaranteeing good RH choices to women and men, one of the objectives of the International Conference on Population and Development (1994 Cairo) Programme of Action. Supplies are often ignored in FP/RH programmes, and funding shortages, combined with both a surge in contraceptive use and insufficient institutional capacity, sometimes make it difficult to establish and maintain a secure supply of contraceptives.

Contraceptive security is achieved when a programme is able to forecast, finance, procure, and consistently deliver a sufficient supply and choice of safe, reliable, and affordable contraceptives to every client needing them. Therefore, understanding constraints related to contraceptive supplies would help programme managers/health care providers to better plan for their continued supply and availability.

Definition

Contraceptive security exists when people are able to choose, obtain, and use high-quality contraceptives, including condoms, according to their needs for FP and prevention of HIV/sexually transmitted infections; more simply, it is the increased availability of contraceptive supplies.

Elements of Contraceptive Security

- **Clients:** Programmes that increase contraceptive security serve the entire market of current and potential users, from those who require free supplies to those who can and will pay for commercial products.
- **Commodities:** Contraceptive security means that users can make informed choices from a full range of methods and services of high quality and at

affordable prices. Ensuring access to short-term, long-term, permanent, and natural methods is part of contraceptive security.

- **Long-Term Assurance:** Contraceptive security means that the methods and services are available according to clients' need. This requires leadership and long-term commitment from all stakeholders, i.e., the public sector, private sector, and donors. Even households must contribute by helping to pay for their methods when they can.

Requirements of Contraceptive Security

The capacity to ensure that supplies reach the men and women who need and want them is crucial. Policy, political commitment, and economic factors play an important role; adequate funding alone cannot guarantee contraceptive security.

Capacity

Contraceptive supply security requires a minimum set of institutional capacities as detailed below:

- **Logistics:** Programmes need the capacity to estimate current and future contraceptive requirements, procure required contraceptives, track and manage inventories at all levels of the supply chain, and safely store and deliver products to the individuals seeking services, when and where needed. Efficient logistics management systems can often prevent temporary stock-outs and shortages of supplies.
- **Financial Sustainability:** Budgetary cycles, international procurement processes, and time required for supply chain dictate that funding be reliable and predictable for a minimum of 3–5 years. Sustainability usually requires taking advantage of financing options that relieve the burden on the public sector, including market segmentation, public sector cost recovery, social marketing, and commercial and social health insurance.
- **Information Systems:** Effective information systems produce reliable and useful data critical to policy and programme planning, priority setting, logistics, evidence-based interventions, programme implementation, and monitoring. These are also important for galvanizing program support and for raising awareness among policymakers and other potential advocates.
- **Advocacy:** Key stakeholders, parliamentarians, and concerned public and private organizations play an important role in raising awareness and mobilizing political support for supplies. These activities encourage government, funding partners, and others to direct their resources to ensure the availability of commodities, to reduce barriers, including taxes, price controls, and advertising, to promote consumer-centred strategies, and to improve the funding environment.

Environment

Conditions over which programmes have little or no control also can influence contraceptive supply security, such as:

- **Legal and Policy Environment:** Favourable laws and regulations to facilitate import of contraceptives/their raw materials, and support to expand the commercial sector, also encourage a range of approaches to enable distribution of contraceptives and their promotion or advertisement.
- **Regulatory Agency:** With adequate authority and independence, drug and device regulatory agencies ensure the safety, efficacy, and quality of drugs (including contraceptives) by establishing a legal framework specifying requirements for manufacturing, importing, registration, certification, labelling, dispensing, and reporting of product problems.
- **Political Commitment:** A government committed to FP works actively to eliminate barriers to its promotion and access, ensures contraceptive access, urges other stakeholders, such as social marketing and commercial providers, to play a meaningful role, and, when necessary, shoulders a significant share of FP costs.

Commercial Sector

When there is a vibrant commercial contraceptive market, the burden of providing supplies is not borne by the public sector only, but subsidized public sector supplies can be distributed efficiently.

Out-of-pocket payments account for 50–90 percent of health care spending in developing and transitional countries, compared to less than 30 percent in industrialized countries, where insurance and other third-party mechanisms share the cost burden. Many who pay for their own supplies purchase them from the commercial sector, which includes private hospitals/clinics, pharmacies, employers, markets, and shops.

The commercial market share for FP varies significantly across developing countries. Whether the commercial sector can play a major role in contraceptive security depends on a number of factors, including a country's public sector policy, income levels, contraceptive demand, and distribution channels. Policymakers who consider these factors in realistically assessing the future market shares can be better able to ease the public sector burden and thus increase contraceptive supply security.

Causes of Contraceptive Shortages

The factors that can lead to contraceptives shortages include growing demand for contraceptives, shifting national priorities, lack of in-country capacity, and inadequate coordinating mechanisms at the national level.

Conclusion

Many elements are involved in securing supplies of contraceptives and condoms so that people are able to reliably choose, obtain, and use them (see figure below). Within the broader context—determined by socioeconomic conditions,

political and religious concerns, competing health priorities, and health sector reforms, etc.—commitment and coordination by government, donors, and other stakeholders at all levels help ensure supportive policies, resource mobilization, and effective allocation of resources. Human and institutional capacity affects the entire system and must exist for a range of functions, including forecasting, procurement, logistics, service delivery, advocacy, and data-driven decision-making. Governments, the private sector (employers, insurers, and other third parties), households, and donors are all key participants in contraceptive financing (capital), which along with forecasting and procurement, ensures that programmes have the necessary supplies. Furthermore, the bottom line for contraceptive security is client utilization, which results from client demand and successful efforts in fulfilling that demand with distribution and service provision through a range of public and private sector channels.

Figure 18-1. Reproductive Health Commodity Security Framework



Source: Hare L et al. (eds.) and Bornbusch A (ed.). 2004. *SPARHCS: Strategic Pathway to Reproductive Health Commodity Security. A Tool for Assessment, Planning, and Implementation*. INFO Project/Center for Communication Programs, Johns Hopkins Bloomberg School of Public Health: Baltimore, Maryland.

Working out Monthly Contraceptive Requirement— Replenishment for RHS-A Centre/MSU/FWC

Step I	Work out Average Monthly Consumption (AMC) of each commodity for the last 3 months.
Step II	Multiply AMC by number of months' stock to be maintained at facility level. Currently, stock level is to be maintained for 3 months at facility level. Therefore, multiply AMC by 3; this is the desired stock level.
Step III	Work out requirement/replenishment by subtracting available stock (last entry in the month) as per CLR-5 (Stock Register) from desired stock level as calculated in Step II.

Symbolically:

Replenishment = Desired Stock - Available Stock

Example:

Contraceptive Performance of a Facility for Last 3 Months

	Condoms	Oral Contraceptives (COC)	CuT 380A	Magestron
February 2007	1,000	50	20	20
March 2007	1,400	40	22	18
April 2007	1,500	30	18	19
Total	3,900	120	60	57
AMC	$3,900/3 = 1,300$	$120/3 = 40$	$60/3 = 20$	$57/3 = 19$
Desired stock level	$1,300 \times 3 = 3,900$	$40 \times 3 = 120$	$20 \times 3 = 60$	$19 \times 3 = 57$
Available stock	3,000	150	45	60
Replenishment required	900	Zero	15	Zero

Couple Year of Protection (CYP)

Conversion Formula for Contraceptive Couple Year of Protection (CYP)

Condom	Number of UNITS/144
Oral Pill	Number of CYCLES/15
IUCD	Number of INSERTIONS x 3.5
Injectable	Number of VIALS/5
Implant (Norplant)	Number of INSERTIONS x 5
Contraceptive Surgery (CS)	Number of CASES x 12.5

Source: MoPW, Islamabad.

MoPW's List of Contraceptive Logistic Record/Reports (CLRS)

- **CRL-1** Contraceptive Procurement Status Card
- **CRL-2** Country/Provincial Contraceptive Stock Card
- **CRL-3** Contraceptive Receiving Report
- **CRL-4** BIN Card
- **CRL-5** Contraceptive Stock Register
- **CRL-6** Contraceptive Requisition Form
- **CRL-7** Contraceptive Issue and Receipt Voucher (IRV)
- **CRL-8** Warehouse Contraceptive Stock and Dispatch Report
- **CRL-9** District Contraceptive Stock & Sales Ledger
- **CRL-10** Analysis of District's Contraceptive Stock & Sales
- **CRL-11** District Contraceptive Stock Report
- **CRL-12** Contraceptive Dispatch Order
- **CRL-13** Service Outlets Contraceptive Stock & Sales Ledger
- **CRL-14** Sale Outlets Contraceptive Stock & Sales Ledger
- **CRL-15** District Contraceptive Stock Report

Source: Government of Pakistan, Ministry of Population Welfare (MoPW). 2007. *Manual of Contraceptive Logistics*. MoPW: Islamabad.

TRAINING/HUMAN RESOURCE DEVELOPMENT

Introduction

Human resource development (HRD) through training of programme personnel is considered essential for their continued professional development (CPD). Knowledgeable staff with strong professional skills are among the most important factors for ensuring safety of the services rendered with high quality of care (QoC). Therefore, institutions have been established throughout the country to cater to HRD/training needs of programme managers as well as health care providers (medics and paramedics) from programme and non-programme sectors including health, nongovernmental organizations (NGOs), and the private sector.

This chapter will briefly describe the HRD/training programmes offered by the national Population Welfare Programme (PWP) and will focus on training related to family planning (FP) service delivery.

Human Resource Development: Goals and Objectives

The broad goal of HRD/training activities under the PWP is to develop and produce a core team of highly qualified professionals for managing/providing FP/reproductive health (RH) services safely and efficiently, coupled with ethical norms and high QoC at par with international standards.

The main objectives of HRD/training activities under the PWP include enabling the service providers:

- To enhance their technical knowledge to make them fully aware of:
 - Service ethics
 - Contraceptives mix—the full range of FP methods
 - Clients' eligibility criteria (per the World Health Organization [WHO])
- To enhance their professional proficiency and skills through competency-based, hands-on practice to:

- Deliver FP/RH services that are safe, efficient, and reliable.
- Avoid, recognize, and manage side effects, complications, and unexpected events.
- To update their knowledge and skills for their CPD through continued medical education.

Categories of Training Programmes under PWP

Non-Clinical Training Programmes at Population Welfare Training Institutes (PWTIs)

- **Programme Employees:** Pre-service training for new entrants and refresher/ follow-up courses are offered to the different categories of the staff of Ministry/Provincial Population Welfare Departments, faculty members of PWTIs, social scientists of Regional Training Institutes, and programme personnel at district/Tehsil levels. The content for each training is reviewed and updated to meet emerging needs and requirements.
- **Non-Programme Personnel:** Orientation training is arranged for planners, administrators, and mid-level managers from stakeholder organizations such as those for health, education, agriculture, social welfare, local government, women, and development, and for students/trainers of other training institutes and universities, artists and producers of TV/radio, journalists, and others. Similar training is arranged for personnel from public-private sector organizations and community-based groups comprising opinion leaders, lawyers, elected representatives, NGOs, volunteers, friends of Family Welfare Centres (FWCs), registered medical practitioners (RMPs), hakeems, homeopaths, religious leaders, etc.

Table 19-1. Course Content and Duration for Different Training Programmes at Population Welfare Training Institutes

S. #	Training Courses Title	Duration	Broad Areas Covered
I.	Programme Personnel		
1.	Post-induction Course For TPWOs, DDPWOs, Demographers, DPWOs, Asst. Dir, Dy. Dir, Director (BS: 17 and above)	6 Weeks	<ul style="list-style-type: none"> • Population Welfare Programme: policy, strategies, objectives approaches, achievements, review • Islam and Family Planning • Population and Development • Demographic Concepts and Theories • Management/Office Management • Financial Management • Supervision, Monitoring and Evaluation • Recording and Reporting System • Management Information System • Information Technology • Contraceptive Logistic System • Information, Education, and Communication (IEC) and Advocacy • Public Relations • Motivation, Counselling, and Interpersonal Communication (IPC) • Reproductive Health Package • Community Mobilization and Participation
	Accounts Assistants/ General Assistants/ Statistical Assistants/ Accounts Officers (BS: 11-16)	2 Weeks	<ul style="list-style-type: none"> • Population Programme • Population Situation • Consequences of Rapid Population • Islam and Family Planning • Office Procedures and Computer Literacy • Financial Management • Management Information System • Reproductive Health Package
2.	Pre-service Training of Male Mobilizers	12 Weeks	<ul style="list-style-type: none"> • Seven Modules
3.	Refresher Course for Officers/Staff DPWO, DDPWO, PWD/Federal	2 Weeks	<ul style="list-style-type: none"> • Training of Trainers (TOT), focusing on learning process and training management

S. #	Training Courses Title	Duration	Broad Areas Covered
4.	Training of Trainers (TOT) for Faculty of PWTIs and Regional Training Institutes, DPWO, DD(C&T), DDPWO (BS: 17-18)	3 Weeks	<ul style="list-style-type: none"> • Training Need Assessment • Adult Learning Principles • Curriculum Designing • Training Methodology • Presentation Skills • Use of Audiovisual Aids • Designing Workshop and Training Programme • Evaluation of Training
5.	Computer Literacy	2 Weeks	<ul style="list-style-type: none"> • DOS, MS Word, Excel, PowerPoint, Data Analysis
6.	Pre-/In-service Training of FWAs/FWVs/FWCs on Communication Skill and Motivation	1 Week	<ul style="list-style-type: none"> • Counselling • Communication • IEC/Advocacy • Motivation • Community Participation • Office Procedures • Recordkeeping • Reproductive Health
7.	Orientation for Drivers/ Naib Qasids and Office Staff (BS: 1-4)	4 Days-1 Week	<ul style="list-style-type: none"> • Office Procedures • Etiquettes and Manners • Population Programme
II.	Non-Programme Personnel		
1.	Orientation for: Nation Building Dept. Provincial Line Dept. Target Group Institutions NGOs Community-based Groups	2 Days	<ul style="list-style-type: none"> • Population Situation • Consequences of Rapid Population Growth • Population Welfare Programme • Service Delivery System • District Profile • Referral System • Islam and Family Planning
2.	Specialized Training for Different Categories	4 Days	<ul style="list-style-type: none"> • Population and Development • Project Development • Computer Literacy • Interpersonal Communication (IPC) • Male Involvement • Adolescents and Reproductive Health • Development of IEC Materials • Management Information System • Logistics of Contraceptive Supplies

Table 19-2. Clinical Training at Regional Training Institutes (RTIs)

#	Title	Duration	Course Content
1. TRAINING FOR PROGRAMME EMPLOYEES			
I. Basic/Long-term Training (Trainees are inducted bi-annually)			
1.	Basic Training Course for Family Welfare Worker (FWW)	24 Months	24 Modules
II. Advanced Training			
1.	Advanced training of FWWs to become FW Counsellors	3 Months	
2.	Advanced training of FW Counsellors to become FTOs	6 Months	Competency-based Theoretical and Practical Training as per Ministry's prescribed curricula including Country's Demographic Profile; Population Policy; FP Methods; Infection Prevention; FP Counselling; Camp Services
3.	Advanced training of FW Counsellors to become ASTs	5 Months	
III. Pre-Service Training			
	Pre-service training for FWAs on RH and FP	3 Months	Competency-based Theoretical and Practical Training as per Ministry's prescribed curricula including Country's Demographic Profile; Population Policy; FP Methods; FP Counselling; Camp Services
IV. In-Service/Refresher Training			
1.	Refresher training for FWWs on RH	4 Weeks	Competency-based Theoretical and Practical Training as per Ministry's prescribed curricula including Country's Demographic Profile; Population Policy; FP Methods; Infection Prevention; FP Counselling; Camp Services
2.	Refresher training for FWWs on FP	2 Weeks	
3.	Refresher training for FWAs on FP	1 Week	Competency-based Theoretical and Practical Training as per Ministry's prescribed Curricula
V. Orientation of Doctors on Family Planning			
	Orientation Training for MO In charge RHS-A Centres	1 Day	<ul style="list-style-type: none"> • Demographic Situation of Pakistan • Population Stabilization • Islam and Family Planning • Introduction to FP Methods
VI. Miscellaneous/Other Trainings			
	Training on Teaching Methodology and Training Evaluation for Faculty of: Regional Training Institutes, PWTIs, RHS Training and Master Training Centres	2 Weeks	Competency-based Theoretical and Practical Training as per Ministry's prescribed Curricula including Principles of Adult Learning and Training Evaluation Techniques

#	Title	Duration	Course Content
2. TRAINING FOR NON-PROGRAMME PERSONNEL			
I. Orientation of Paramedics on Family Planning			
1.	Paramedics (LHVs/TBAs Dais/Midwives) from Health/Provincial Line Depts	1-2 Days	<ul style="list-style-type: none"> • Demographic Situation of Pakistan • Population and Development • Islam and Fertility Regulation • Contraceptive Technology
2.	Paramedics of PPSOs	1-2 Days	
3.	Paramedics of NGOs	1-2 Days	
4.	Paramedics of Private Sector	1-2 Days	
II. Orientation Training of Doctors on Family Planning			
1.	Doctors of Health/ Other Provincial Line Depts	1-2 Days	<ul style="list-style-type: none"> • Demographic Situation of Pakistan • Population and Development • Islam and Fertility Regulation • Contraceptive Technology
2.	Doctors of PPSOs	1-2 Days	
3.	Doctors of NGOs	1-2 Days	
4.	RMPs/Doctors of Private Sector	1-2 Days	
III. Orientation Trainings for Miscellaneous Groups			
1.	Training of Medical Students	1 Day	<ul style="list-style-type: none"> • Demographic Situation of Pakistan • Population and Development • Islam and Fertility Regulation • Advantages of Small-Family Norms • Social Mobilization • Male Involvement • Introduction of FP Methods • Contraceptive Technology (Groups 1 and 2)
2.	Training of Nurses/ Student Nurses/ Student LHVs	1 Day	
3.	Training of Community Volunteers/Lady Workers	1 Day	
4.	Training of University/ College/School Teachers, Students	1 Day	

Table 19-3. Clinical Trainings at RHS Master/Training Centres

#	Title	Duration	Course Content
1. TRAINING FOR PROGRAMME AND NON-PROGRAMME PERSONNEL			
I. Basic/Advanced Trainings			
1.	Basic Minilaparotomy Tubal Ligation Training Course for Medical Officers (MOs) from RHS A-Centres	15-21 Days	<ul style="list-style-type: none"> • Training Curriculum (Theory and Practical): Anatomy, Physiology, Client Eligibility Criteria, Counselling, Infection Prevention Practices/Asepsis • Minilaparotomy Technique • Client Follow-up • Management of Complications
2.	Basic Laparoscopic Tubal Ligation Training Course for MOs from RHS A-Centres	15-21 Days	<ul style="list-style-type: none"> • Training Curriculum (Theory and Practical): Anatomy, Physiology, Client Eligibility Criteria, Counselling, Infection Prevention Practices/Asepsis • Laparoscopic Bilateral Tubal Ligation (BTL) Technique • Client Follow-up • Management of Complications
3.	Basic No-Scalpel Vasectomy (NSV) Training Course for MOs from Male Advisory Centres/NSV Centres	15-29 Days	<ul style="list-style-type: none"> • Training Curriculum (Theory and Practical): Anatomy, Physiology, Client Eligibility Criteria, Counselling, Infection Prevention Practices/Asepsis • NSV Technique • Client Follow-up • Management of Complications
4.	Advanced Training of FWWs to become Theatre Nurses	6 Months	<ul style="list-style-type: none"> • Clinical Attachment (Theory and Practical) • Basics of Theatre management • Infection Prevention Practices and Asepsis • Instrument Sterilization • Waste Disposal • Hands-on Training to assist for Minilaparotomy/Laparoscopic BTL
5.	Advanced Training of Theatre Technicians on Infection Prevention/Asepsis and Sterilization	2 Weeks	<ul style="list-style-type: none"> • Clinical Attachment (Theory and Practical) • Basic Infection Prevention and Disinfection • Methods of Asepsis • Chlorine Solution • High-Level Disinfection and Sterilization

#	Title	Duration	Course Content
II. Refresher Trainings			
1.	Minilaparotomy Tubal Ligation Refresher Training Course for MOs from RHS A-Centres	1 Week	<ul style="list-style-type: none"> • Training Curriculum (Theory and Practical); Anatomy, Physiology, Client Eligibility Criteria, Counselling, Infection Prevention Practices/Asepsis • Minilaparotomy Technique • Client Follow-up • Management of Complications
2.	Laparoscopic Tubal Ligation Refresher Training Course for MOs from RHS A-Centres	1 Week	<ul style="list-style-type: none"> • Training Curriculum (Theory and Practical); Anatomy, Physiology, Client Eligibility Criteria, Counselling, Infection Prevention Practices/Asepsis • Laparoscopic BTL Technique • Client Follow-up • Management of Complications
3.	No-Scalpel Vasectomy (NSV) Refresher Training Course for MOs from Male Advisory Centres/NSV Centres	1 Week	<ul style="list-style-type: none"> • Training Curriculum (Theory and Practical); Anatomy, Physiology, Client Eligibility Criteria, Counselling, Infection Prevention Practices/Asepsis • NSV Technique • Client Follow-up • Management of Complications
4.	Refresher Theatre Management Training of Theatre Nurses	2 Weeks	<ul style="list-style-type: none"> • Clinical Attachment (Theory and Practical) • Basics of Theatre Management • Infection Prevention Practices and Asepsis • Instrument Sterilization • Waste Disposal • Hands-on Training to assist for Mini-laparotomy/Laparoscopic BTL
5.	Refresher Training of Theatre Technicians on Asepsis/Infection Prevention	1 Week	<ul style="list-style-type: none"> • Clinical Attachment (Theory and Practical) • Basic-Infection Prevention and Disinfection • Methods of Asepsis • Chlorine solution • High-Level Disinfection and Sterilization

Table 19-4. Locations of the Programme Training Institutions

S. No.	Category	Punjab	Sindh	NWFP	Balochistan	N.A./AJK	Islamabad Capital Territory (ICT)
1.	Regional Training Institutes—13	Lahore Multan Faisalabad Sahiwal D.G. Khan *	Karachi Hyderabad Sukkur Larkana Nawabshah*	Peshawar Abbottabad Bannu*	Quetta Khuzdar*	Muzaffarabad Gilgit*	Islamabad
2.	RHS Master Training Centre	Lahore LW Hosp Multan Nishtar Hosp	Karachi JPMC				
3.	RHS Training Centre	Lahore • LG Hosp • Services Faisalabad • DHQ Hosp Rawalpindi • RG Hosp Bahawalpur • BV Hosp	Karachi • Civil Hospital • Services Hosp Hyderabad • LMC • MFC Nawabshah Larkana	Peshawar Lady Reading Hosp			
4.	Vasectomy Training Centre	Lahore SGR Hospital Faisalabad DHO Hosp	Mora DHO Hosp				
5.	Population Welfare Training Institute (PWTI)	Lahore	Karachi				

* Planned

Qualities of a Good Trainer

Qualifications of trainers vary according to the cadre of trainees, type of training, and type of institutes; however, generally, a trainer should be a person duly certified by a competent, recognized Master Trainer/Organization, for undertaking training of FP health care providers. She/he must have attended a Training of Trainers (TOT) Workshop on Teaching Methodology and Training Evaluation Techniques. A trainer should also have sufficient experience along with the following qualities:

- **Knowledge** about all of the natural and modern contraceptives, especially:
 - Basic anatomy and physiology of human reproductive systems
 - Medical eligibility criteria (MEC)
 - Client screening/selection
 - FP methods: indications, contraindications, and warning signs
 - Dispensation of FP methods
 - Infection prevention practices/asepsis
 - Management of side effects
- **Technical competency** to ensure quality of care:
 - To dispense modern contraceptives safely
 - To perform voluntary surgical contraception safely
- **Communication skills:**
 - General communication skills
 - Interpersonal communication
 - Behaviour change communication
- **Personality and understanding** of human relations and behaviours:
 - Pleasant personality
 - Group dynamics management
 - Conflict management

Trainee's Certification

Certification criteria to perform voluntary surgical contraception (VSC) as follows:

Provisional Certification

Upon successful completion of theoretical and practical training for 15 days, a trainee may be certified by a trainer if she/he is satisfied that the trainee has acquired the requisite knowledge and skills.

Theoretical Training (6-12 hours)

Theoretical training includes the basics of the reproductive system (anatomy, physiology, and pathology); issues requiring attention before, during, and after VSC; basic concepts and principles of infection prevention/asepsis; and management of complications.

Table 19-5. Content of Practical Training (hands-on, competency-based)

Basic Training for	Number of Cases to		
	Observe	Assist	Perform Solo
VSC Methods			
Minilaparotomy	2	8	10
Laparoscopic BTL	2	3	10
Vasectomy/NSV	1	1	3

Final Certification

After successful provisional certification, the trainee in her/his workplace will perform VSC independently, maintaining close liaison with a trainer who monitors the trainee's performance three times—when she/he has performed 20, 50, and 100 VSC operations respectively.

The trainer may issue a final certificate if she/he is satisfied with the trainee's performance/skills; otherwise, refresher training is recommended for an adequate period determined/suggested by the trainer.

After final certification, the trainees will undergo refresher training on an as-needed basis, as and when required.

SUPERVISION, MONITORING & EVALUATION, AND RECORDING/REPORTING

Introduction

Supervision and monitoring and evaluation (M&E) are the built-in and ongoing mechanisms of the National Population Welfare Programme for ensuring and optimizing quality of care (QoC) for family planning/reproductive health (FP/RH) services. This manual sets the minimum standards for all contraceptive methods as M&E guidelines and for vigilance on the part of the programme staff for ensuring that these standards are achieved and maintained. Regular supervision, coupled with M&E, leads to early and rapid identification of problems so they can be promptly rectified through remedial actions or necessary changes, thereby ensuring that the services remain safe and effective, with minimal complication rates and high-quality and prescribed standards maintained.

Supervision, Monitoring and Evaluation

Supervision has been defined as the overall range of measures to ensure that personnel are carrying out their activities effectively. It is a management technique, which all primary health workers in positions of responsibility should possess and practice at all levels of the health system. Supervision measures the staff members' performance and, when carried out on a regular basis, ensures that required standards are met. The supervisor should realize that supervision emphasizes monitoring, joint problem solving, and two-way communication between the supervisor and the individual being supervised. Further, the supervisors need to remember that supervision and monitoring should always be facilitating and done in a way that is non-threatening to the staff. Mutual trust among programme personnel is essential; fear of punishment would make the staff reluctant to cooperate and the supervisor would have difficulty in assessing the safety and quality of services.

Therefore, a supervisor/manager should periodically and regularly visit service delivery points to:

- Ensure that job descriptions are available for all staff members and each of the staff members knows and understands his/her job description.
- Evaluate staff members' performance against their job descriptions and evaluate their quality of work against the established standards.
- Identify skill development needs for the staff members and provide them on-the-job training, as and when needed.
- Provide positive feedback to the staff members, helping them to improve their job performance.

Monitoring is the periodic collection and analysis of selected indicators to enable managers/supervisors to determine whether key activities are being carried out as planned and have the expected effects on the target population. Monitoring, therefore, is a process to assess implementation against the work plan, which outlines the project activities to achieve specific objectives, and thus provides feedback to managers so they can improve operational plans and take corrective actions.

In an organization, two types of monitoring activities can be carried out—“routine” and “short-term”. Routine monitoring (for example, Population Welfare MIS) involves compiling information on a regular, ongoing basis for a core set of indicators providing sufficient information to track progress; this kind of monitoring can be used to identify where programme implementation is not proceeding as planned. Short-term monitoring is undertaken for a limited period of time and usually for a specific activity, especially when some new activities/projects or processes are implemented. Once implementation is under way, key indicators are incorporated into routine monitoring.

In an M&E system, indicators are used to measure achievement of targets; assess changes/trends in health status; compare the level of achievement between working areas or project sites; and identify currently underserved areas. Indicators are used to assess, analyze, and manage FP/RH services. An M&E system answers the questions of relevance (does the project address specific needs), efficiency (are resources being used wisely), effectiveness (are the desired results achieved), and impact (to what extent have project activities brought about changes for the betterment of individuals and/or the community).

Although monitoring and supervision activities overlap each other, the two may be differentiated as follows:

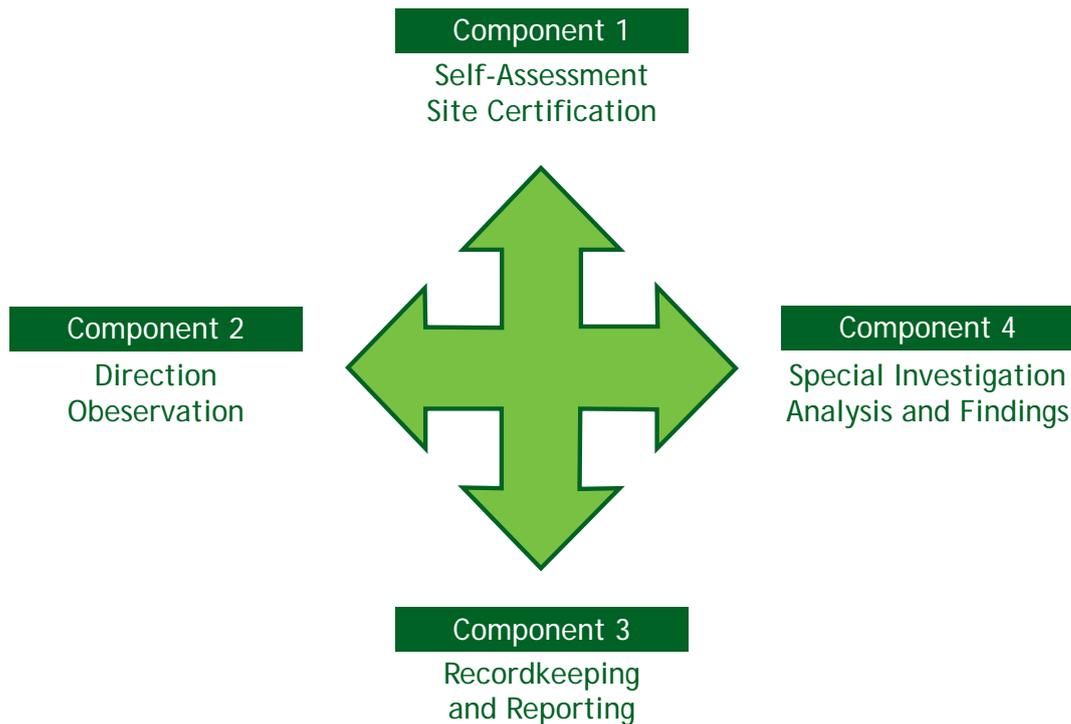
Table 20-1. Comparison of Monitoring and Supervision Activities

Monitoring	Supervision
Management tool	Leadership and management function
Built in project design and carried out through quantifiable indicators	Done besides M&E
Periodic activity	Regular activity
Enables managers to plan efficiently	Focuses on improved performance of personnel

Meaningful, effective monitoring and supervision require joint problem identification and local-level solutions, two-way communication, and attention to what the providers need to facilitate implementation for quality improvement and achievement of institutional goals.

Supervision and Monitoring System

A supervision and monitoring system has four major components that interact with and influence one another. These are shown below in the form of a diagram:

Figure 20-1. Components of a Supervision and Monitoring System

These components are described below:

Component 1: Self-Assessment

Staff should be encouraged to assess their own performance, knowledge, and skill. It is important that they understand the concepts of quality and safety in FP/RH service delivery so they can implement initiatives to prevent problems.

Following are examples of questions that a staff member or supervisor can ask in order to assess his/her performance:

- Do I/my staff report about faulty equipment immediately so that work does not suffer? (If not, the supervisor should arrange for appropriate training of the staff member.)
- In case of problems with an IUCD, do I/my staff sign the client card, thus ensuring responsibility and accountability? (If not, the supervisor should ensure compliance.)
- Do I (the supervisor) hold monthly review meetings with staff members to discuss problems and issues, if any, and plan future preventive measures? (If not, ensure compliance.)

Component 2: Direct Observation through Medical Site Visit

Quality of care (QoC) can be monitored only by actually observing activities and behaviour of staff during provision of services. This can be done through routine supervisory visits by a District Supervisor and random spot checks by a medical site visit (MSV) team.

The MSV team makes random spot checks at selected facilities to assist centres in maintaining the National Standards laid down in this manual. Static, mobile, and camp services must be chosen for checks. To conduct MSVs, the site assessment questionnaire may be used as a tool for monitoring and facilitation. The reports of the MSV shall then be submitted to the concerned higher authority. If deficiencies are found, the team may recommend that some or all services be improved until identified deficiencies are corrected.

Component 3: Recordkeeping and Reporting

Formats for keeping records should be simple and user-friendly, asking for only minimum information necessary to monitor safety and quality of the services.

The following essential records should be maintained:

- **Client Clinical Record Card (CRC):** It is the record of each client requesting FP/RH services. The signed consent for voluntary surgical contraception (VSC) will be kept as a part of the record. The CRC is required for investigation in case of complications.
- **Logistics Record:** This record comprises forms for reporting and keeping records about the use of supplies and for sending requests for replenishment at regular intervals.
- **Special Reports:** The following three serious events require special reports:
 - Major complications
 - Pregnancy after VSC
 - Deaths

The special report, along with the client record, provides the basis for investigations.

Management Information System (MIS): The MIS is an important organizational tool to monitor programme implementation and provide accurate information to help in decision-making. The main elements of an MIS are data collection, data analysis, feedback on implementation, and periodic review of needs and priorities. The Population Management Information System (PMIS) puts together information about programme functions and performance indicators and thereby helps managers to assess and adjust the level and pace of programme implementation. It acts as a linchpin for the programme's monitoring system.

Component 4: Special Investigation—Findings and Analysis

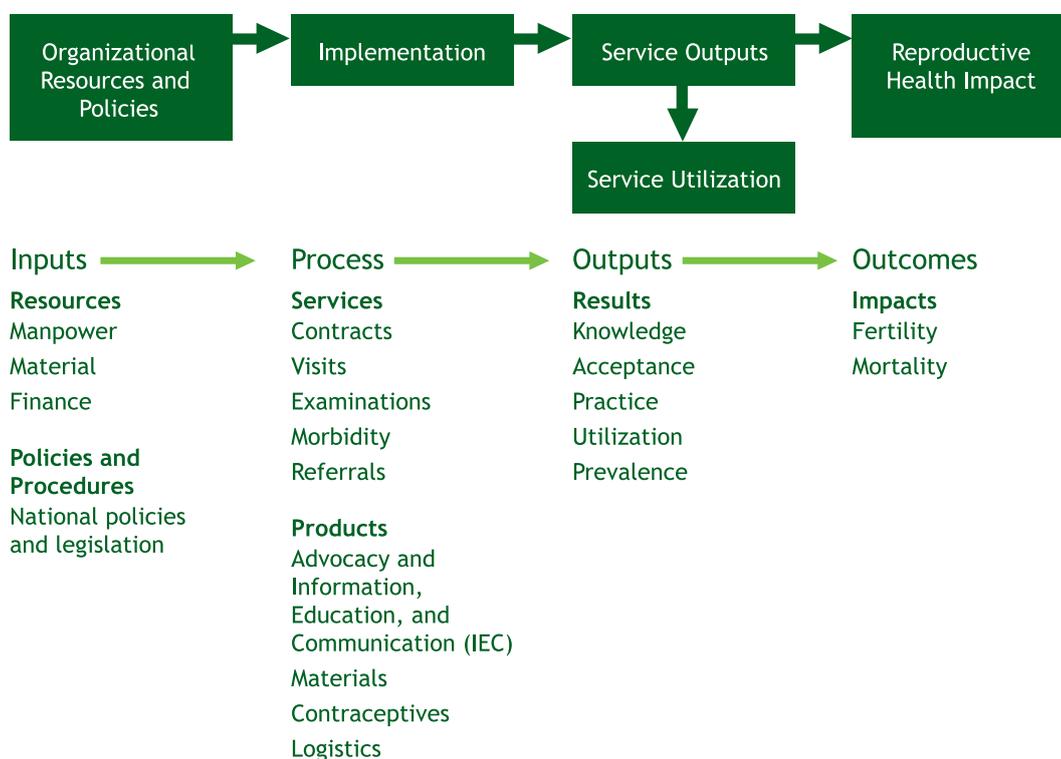
The following quality improvement approaches and tools can be used:

- **COPE:** Client-Oriented Performance Evaluation (COPE) is a simple-technology, low-cost technique that uses simple checklists and forms to assess FP service, identify problems, suggest solutions, and monitor them. All members of the local service delivery team take part in the exercise. When used by committed providers, COPE is an empowering process that promotes continuous quality improvement.
- **In-Reach:** It addresses missed opportunities for providing services and establishes internal linkages for referral services.

Conceptual Framework

A conceptual framework for FP/RH helps those involved in programme design, management, and implementation to select the appropriate input, process, output, and impact indicators to monitor and evaluate whether and how these interventions have helped to achieve FP/RH objectives.

Figure 20-2. A Conceptual Framework for Monitoring and Evaluation of Reproductive Health Programme Components



Adapted from: Abeykoon ATPL. 1999. Monitoring progress and ensuring accountability of reproductive health service provision: A road map. *Innovations* 7-8: 213-228. International Council on Management of Population Programme, Kuala Lumpur.

Role and Responsibilities

The District structure is the main operational tier of the Population Welfare Programme (PWP). It is responsible for actual implementation of Population Welfare activities in the field, which centre on general administration, financial management, service delivery, supervision, supply and logistic support, coordination and collaboration with partners, collection and consolidation of service statistics, etc. All District Offices are supported by the following structure with their independent arrangement of staffing, supplies, and mobility support:

- Tehsil Office
- Reproductive Health Services (RHS) A-Centres
- Mobile Service Units (MSUs)
- Family Welfare Centres (FWCs)
- Male Mobilizers

The PWP is monitored with respect to the roles and responsibilities of the field staff and the objectives of the programme, with special focus on inputs and outputs, in order to provide continued direction and monitor trends and the pace of progress. Their roles/responsibilities are summarized as follows:

1. District Population Welfare Officer (DPWO)

- Plan, organize, and implement FP activities through the Family Welfare Centres (FWCs), Mobile Service Units (MSUs), Reproductive Health Services Centres (RHSCs), RMPs, Outlets of Health Department, other Provincial Line Departments, Lady Health Workers, hakeems, and homoeopaths.
- Regularly arrange District Technical Committee (DTC) meetings to maintain liaison with EDO Health and ensure FP/RH service delivery through the health infrastructure.
- Draw/disburse and maintain financial record for all expenditures incurred in the district on programme activities and submit expenditure reports to the provincial offices.
- Organize the assigned communication activities.
- Maintain linkage and supervise the activities of the Tehsil Office.
- Identify training needs and ensure training of the programme and non-programme personnel.
- Provide logistical support and contraceptive supply to the programme and non-programme service outlets.
- Ensure adequate supply of medicines, equipment, and instruments to Family Welfare Centres, Reproductive Health Services Centres, Mobile Service Units, and Male Mobilizers.

- Involve and coordinate with Public Sector Departments, public-private sector organizations (PPSOs), and nongovernmental organizations (NGOs) for extending FP/RH services.
- Monitor, supervise, and provide on-the-job guidance to the service providers through field visits and periodic meetings.
- Collect, compile, and consolidate performance reports for onward transmission to Provincial Population Welfare Department (PWD) and provide feedback to service outlets.
- Provide secretarial support to the district-level committees set up for the PWP.
- Carry out any other assignment(s) given by the higher hierarchy of the programme.

2. Tehsil Population Welfare Officer (TPWO)

- Provide administrative and logistical support to FWCs, MSUs, and Male Mobilizers.
- Supervise and monitor programme activities in the Tehsil on a regular basis.
- Supervise the work of Male Mobilizers in interpersonal motivation and distribution of contraceptives and IEC material (functions described in detail under Family Welfare Centres).
- Coordinate and liaise with other Departments for promotion of FP and seek their cooperation (particularly Health Department and PPSOs).
- Compile, consolidate, and submit performance reports to the District Office.
- Maintain inventory and mapping of all service outlets involved in the programme and ensure distribution of contraceptives.
- Maintain contact with the communities, involving local councils, NGOs, and other opinion leaders through a systematic programme for creating awareness and desire to adopt the small-family norm.
- Conduct group meetings and assist district officers in organizing seminars.
- Identify new outlets for involvement in the programme.
- Organize and supervise film shows through the Audio Visual Vans.
- Perform any other function(s) assigned by the higher hierarchy of the programme.

3. Medical Officer In-Charge: RHS-A Centre

- Ensure that all staff observe their schedules and are physically present during their assigned working hours.
- Ensure optimal provision of FP/RH service at RHS-A Centres.
- Make sure that contraceptive surgery clients are adequately counselled.
- Ensure pre-operative screening and post-operative care of VSC clients.
- Ensure follow-up of VSC and other FP/RH cases.
- Establish a close liaison with hospital management, gynaecology/obstetrics, anaesthesia, and pathology departments for required backup support.
- Assign duties to paramedics with regular follow-up.
- Ensure registration/proper counselling of all antenatal/postnatal clients in obstetrics/gynaecology/paediatrics and outpatient department ward regarding FP/RH services.
- Compile monthly performance report.
- Handle administrative matters of the RHS-A Centre.
- Conduct trainings in contraceptive technology for doctors and paramedics.
- Ensure post-operative recovery of clients at RHS-A Centres by monitoring of vital signs until discharge of client in satisfactory condition by MO in-charge.
- Ensure availability/provision of a vehicle for transportation of post-operative contraceptive surgery (CS) clients.
- Perform any other duty assigned by superior office.

4. Medical Officer In-Charge: Mobile Service Unit (MSU)

- Manage and supervise the MSU.
- Select underserved villages and village committees.
- Develop quarterly work/visit plan for MSU in consultation with DPWO.
- Conduct 12–15 MSU camps per month to cover all underserved villages in Tehsil quarterly.
- Establish liaison and coordinate with health, NGO, and community-based organizations.
- Work closely with DPWO, RHS-A Centre for CS referral, and FWCs.
- Manage logistics, including vehicle maintenance, equipment, medicines, and contraceptives.
- Ensure regular supply of medicines, contraceptives, and other supplies from district office.

- Ensure timely submission of monthly/quarterly/yearly consolidated performance reports.
- Provide support for the training activities at the district level.
- Provide technical supervision of the FWCs in Tehsil and provide on-the-job training to Family Welfare Workers (FWWs) and Family Welfare Assistants (FWAs) (female).
- Organize awareness-raising events on FP and RH issues.

5. **Field Technical Officer (FTO)**

- Render FP/MCH services at the MSU.
- Hold health talk sessions for creating awareness on FP/RH issues.
- Prepare and use IEC material.
- Conduct on-the-job training.
- Build capacity of the community for health promotion and prevention activities.
- Mobilize the community and involve them in organizing and conducting the camp.
- Develop linkages and network with the field management committees.
- Maintain referral linkages with the specialists and conduct periodic follow-up meetings.
- Ensure the proper functioning of the MSU and its vehicle.

6. **Family Welfare Counsellor (FWC)/Family Welfare Worker (FWW)**

- Counsel and provide appropriate contraceptive methods to the clients visiting the centre and satellite camps.
- Manage and supervise the staff at the centre and guide them in performing their duties.
- Hold satellite camps (twice a week) within the 5 km radius of the centre to familiarize the community with the activities of the FWC and provide services at their doorstep.
- Maintain record of contraceptives and medicines and prepare and submit monthly performance reports to the District Tehsil office.
- Maintain a close relationship with the community, hold meetings, and conduct and arrange promotional activities.

7. **Family Welfare Counsellor (FWC)/Family Welfare Worker (FWW) at RHS-A Centre**

- Advise clients and provide FP/RH services.
- Maintain client records and attendance registers.
- Motivate clients for VSC.

- Obtain the consent prior to surgery.
 - Conduct pre-operative screening of clients and refer to MO in-charge for finalization.
 - Counsel all antenatal/postnatal clients in gynae, obs., paed, and OPD.
 - Supervise cleanliness and maintenance of the centre.
 - Maintain the following registers/records:
 - Contraceptive stock
 - Medicine stock
 - Daily attendance
 - Staff attendance
 - Dead stock
 - Inspection book
 - Performance report compiled on monthly basis
 - Maintenance of annual inventory of RHS furniture, equipment, supplies, etc.
- 8. Theatre Nurse; RHS-A Centre**
- Make adequate arrangements for operating theatre.
 - Ensure autoclaving of theatre instruments.
 - Ensure proper washing and autoclaving of linen used in VSC.
 - Ensure adequate supply of medicines and surgical equipment for surgery on CS clients.
 - Ensure that breaks in the sterilization process do not occur at any step.
 - Make necessary arrangements for timely fumigation of the operating theatre.
 - Ensure proper cleaning of OT room under her supervision.
- 9. Theatre Technician**
- Undertake sterilization of equipment, instruments, and linen as per requirement of the centre.
 - Prepare the trolley for operations as per requirement of the centre.
 - Maintain equipment and instruments in working condition.
- 10. Accounts Assistant**
- Maintain the record of the expendable and non-expendable items/month.
 - Maintain the monthly record of medicines and other supplies and the daily record of dressings.
 - Maintain the monthly record of vehicle (POL, Log Book) and repair, etc.

- Prepare monthly/quarterly performance reports.
- Maintain the monthly attendance record.

11. Lower Divisional Clerk at RHS Training Centres

- Lower Divisional Clerks are required to assist with routine types of work, e.g., typing, receipts, dispatch and recordkeeping, etc.

12. Family Welfare Assistant (Female)

- Register, follow up, and provide contraceptives to eligible couples in the vicinity of FWC during the days when FWW remains in the centre.
- Motivate and counsel clients for adoption of small-family norms and refer FP/RH clients to the nearest service outlets.
- Undertake field visits to register births and deaths in her area.
- Provide follow-up care of clients and maintain a complete record of the acceptors for sustained use of contraception.
- Assist the in-charge with recordkeeping, look after the centre in the absence of the in-charge, and provide guidance to the clients visiting the centre.

13. Family Welfare Assistant (Male)

- Assist the Family Welfare Counsellor/Worker in holding satellite camps twice a week in the identified villages; arrange the venue, move in the community and ensure necessary logistic arrangements, and distribute IEC material.
- Perform motivational activities, emphasizing male involvement in FP/RH, through interpersonal communication, audiovisual shows, and distribution of IEC material in the community.
- Refer clinical and surgical contraceptive clients to the respective service outlets.
- Assist EPI (Expanded Programme on Immunization) teams with immunization services on selected days at FWCs.
- Be specifically responsible for distribution of contraceptives to RMPs, and homeopaths and hakeems (H&H), in his area and collection of performance reports and sale proceeds of contraceptives from them.

14. Driver at RHS Centre and MSU

- Drive the vehicle safely.
- Maintain the cleanliness of vehicle.
- Maintain all vehicles, their equipment, and accessories, and take the vehicle(s) to a car wash or service station regularly.
- Maintain the logbook and POL registers.
- Assist at the installation and at the close of the camp.

- Provide information to male members of the community regarding availability of services at the camp.
- Ensure that all the equipment is in working order and is returned to the base camp as per inventory.

15. Helper/Aya

- Keep the instruments clean, decontaminate and sterilize the instruments, equipment, furniture, and linen for the camp.
- Assist the in-charge in packing various medical supplies for the camp as per the checklist.
- Assist the team in the installation/wrap-up of camp.
- Maintain cleanliness at the camp.
- Inform and motivate female members of the community regarding availability of services at the camp.
- Ensure proper client flow at the camp.
- Assist the in-charge in follow-up of clients.

16. Chowkidar

- Work as watch and ward of the centre.
- Perform as Naib Qasid during working hours of the centre.
- Disseminate information about FP/RH to males with whom he comes in contact.
- Help maintain the cleanliness of the centre.
- Help clients who are referred to other outlets for management.

Staff Position—RHS Centres

Name of Post	BS	RHS Training Centre			RHS-A Centre with two vehicles performing 60 or above CS cases/month	RHS-A Centres with one vehicle, regular centre
		Master Training Centre	Reinforced Centre	Training Centre		
		Approved staff	Approved staff	Approved staff	Approved staff	Approved staff
Medical Officer/ SMO/CMO	17/18/19	3	3	2	1	1
Theatre Nurse	11	3	3	2	1	1
Family Welfare Worker	8	2	2	2	2	2
Theatre Technician	7	1	1	1	1	1
Family Welfare Assistant	5	1	1	1	1	1
L.D.C	5	2	2	2	1	1
Driver	4	3	2	2	2	1
Aya	1	1	1	1	1	1
Sweeper	1	1	1	1	1	1
Projectionist	12	1	—	—	—	—
Total		18	16	14	11	10

Staff Position—MSU

S. No.	Designation	BS	Sanctioned Strength
1.	Medical Officer In-Charge	17	1
2.	FTO/FW Counsellor	16/11	1
3.	Family Welfare Worker	8	1
4.	Driver	4	1
5.	Aya/Helper	1	1

Staff Position—FWC

S. No.	Designation	BS	Sanctioned Strength
1.	FWW/FWC	8/11	1
2.	FWA(F)	5	1
3.	FWA(M)	5	1
4.	Chowkidar	1	1
5.	Aya	1	1

List of Monitoring Formats and Guidelines¹

Format No.	Facility
PM-01	District Population Welfare Office (DPWO)/Tehsil Population Welfare Office (TPWO)
PM-02	Reproductive Health Services A-Centre (RHS-A)
PM-03	Mobile Service Unit (MSU)
PM-04	Family Welfare Centre (FWC)
PM-05	Service Outlet of Department of Health (DOH)
PM-06	Public-Private Sector Organization (PPSO)
PM-07	Reproductive Health Services B-Centre (RHS-B)
PM-08	NGO Service Outlet

¹ Source: Government of Pakistan, Ministry of Population Welfare (MoPW). 2005. *Manual on Monitoring and Supervision*. (July). Population Welfare Programme, MoPW: Islamabad.

PM-02

Government of Pakistan
Ministry of Population Welfare
M&S Wing

MONITORING PROFORMA FOR RHS-A CENTRE

1. Facility Information

District: _____

Tehsil: _____

Date: _____ Time: _____

Address: _____

Telephone No.: _____

Status	
Open	Closed

2. Management Issues

a) General Displays (In place):

Direction Board		Sign Board		Performance Chart		Area Profile	
Yes	No	Yes	No	Yes	No	Yes	No

b) Building:

Condition			Surrounding Condition		Ventilation		Water Available	
Good	Satisfactory	Poor	Hygienic	Un-Hygienic	Yes	No	Yes	No

Electricity		Easy to Access		Condition of OT/ Insertion Room		Storage Facilities	
Yes	No	Yes	No	Satisfactory	Unsatisfactory	Yes	No

If any of the above is not available/poor, explain the reason(s): _____

c) Capacity Building of Service Providers (Last training received by):

S. No.	Designation	Training Discipline	Date/Duration
1.			
2.			
3.			
4.			

d) Transport:

Available		Total No. of Vehicles		If Off Road		
		On Road	Off Road			
Yes	No			Repairable	Not repairable	Condemned

Remarks: _____

e) Clearance of Dues:

TA/DA Paid in Time		TA/DA Pending Since	Contingencies Paid in Time		Contingencies Pending Since	Proceeds of Contraceptive Sales	
Yes	No		Yes	No		Yes	No

Remarks: _____

f) Proceeds of Contraceptives Sales:

Month	Amount Due	Amount Deposited	Date of Deposit	Difference, if Any	Reason

Remarks: _____

g) Record and Registers Up-to-Date/Signed:

Stock Register		Cash Book		Log Book		Vehicle History	
Yes	No	Yes	No	Yes	No	Yes	No

h) Financial Performance:

Budget Allocated	Budget Released	Budget Utilized	Percentage Utilization on Release

Remarks: _____

i) Audit:

	Internal	External
Date of Last Audit		
Period of Audit		
No. of Outstanding Paras		

j) Contraceptive Replenishment/Storage Condition, etc.:

Are the Contraceptives Being Received Regularly		Date Last Received	Storage Condition		All the Contraceptives Are Available in Sufficient Quantity	
Yes	No		Poor	Satisfactory	Yes	No

Remarks: _____

k) Medicines Availability/Storage Condition, etc.:

Are the Medicines Being Received Regularly		Date Last received	Storage Condition		Medicines Available as per Standard List	
Yes	No		Poor	Satisfactory	Yes	No

Remarks: _____

l) Equipment/Furniture:

Office Equipment Condition			Office Furniture Condition		
Good	Satisfactory	Poor	Good	Satisfactory	Poor

3. Programme Interventions

a) Service Delivery:

	DURING LAST 3 MONTHS			
	1 st Month	2 nd Month	3 rd Month	Total
Total No. of FP Clients Attended				
Total No. of RH/General Patients				

b) Satellite Camps:

	DURING LAST 3 MONTHS			
	1 st Month	2 nd Month	3 rd Month	Total
Number of Camps Scheduled				
Number of Camps Held				
Total No. of FP Clients Attended				
Total No. of RH/General Patients				

c) Contraceptive Performance during the Last 3 Months:

Month	Condom	Oral Pill			IUCD		Injection		Vasectomy	BTL
		COC	POP	EC	Cu-T-380A	Cu-375	NET-EN	DMPA		
Total										
Average										

d) Contraceptive Stock Position:

Month		Condom	Oral Pill			IUCD		Injection	
			COC	POP	EC	CuT-380A	Cu-375	NET-E	DMPA
1	Stock Available as per CLR-5								
2	Stock Physically Available								
3	Stock Sufficient for: No. of Months								
4	Stock Expired								
5	Stock Near Expiry								

4. Information, Education, and Communication Advocacy

a) IEC Material:

Available		Displayed	
Yes	No	Yes	No

Remarks: _____

If IEC material available, please give details:

S. No.	Description	Quantity
1.		
2.		
3.		
4.		
5.		

If no, reason thereof: _____

Action planned: _____

b) Interpersonal Communication

Motivational Activities	Number of Persons Contacted/ Motivated

c) Visits to OPD/Gynae, etc.:

By:			Remarks
MO	Yes	No	
FWC	Yes	No	
FWW	Yes	No	
FWA	Yes	No	

d) Training Activities

Details of teaching/training activities of RHS centre during the last 3 months: _____

Guidelines: Monitoring Proforma for RHS-A Centre (PM-02)

Purpose

This Proforma is to be used by the monitoring team/officers of the PWDs/MoPW while visiting RHS-A facilities. The purpose of the Proforma is to assess proper functioning of the centres objectively and to provide support/guidance to the in-charge of the RHS-A. The monitoring teams/officers will also provide information to senior-level management regarding the functioning of the visited facilities to address any shortcomings or issues faced by the centre. The teams/officers will also provide feedback to the RHS-A in-charge for improvement in the functioning of the centre.

1. Facility Information

The team/officer should write down the name of the district/Tehsil visiting date, and the time when the officer visited the facility. The complete address and telephone number (if available) should be filled in clearly. The status of the facility should be marked.

2. Management Issues

a) General Displays

The team/officer should note the installation of direction boards/sign boards at visible and proper locations. The facility should have the up-to-date performance chart displayed in a simple and easily understandable/readable format. Demographic indicators of the Tehsil, e.g., total population, number of married women of reproductive age (MWRA), number of old and new users, age composition, and other related information should be displayed.

b) Building

The visiting team/officer should objectively assess the overall condition of the building, ventilation, availability of water, and electricity. He/she should physically verify the condition of the operating theatre/insertion room and storage facilities. In the remarks section, the officer should clearly report the reason(s) if the condition is poor or information is not available.

c) Capacity Building of Service Providers

The team/officer should clearly fill in the respective columns on trainings attended by personnel of the facility. In the remarks column, the visiting officer should also mention training needs of the respective officer.

d) Transport

The team/officer should note the transport position available at the facility. In the remarks section, he/she should check the reasons and duration for vehicle(s) being off road.

e) Clearance of Dues

The team/officer should assess the reasons for non-clearance of dues in time.

f) Proceeds of Contraceptives Sales

The team/officer should note that the proceeds of sales are deposited regularly/fully and also ascertain the position of outstanding dues of sale proceeds, if any.

g) Records and Registers

The teams/officer should check the respective registers from the respective staff.

h) Financial Performance

The visiting team/officer should note the financial information and give reasons for low utilization and difference (if any) between allocation and release.

i) Audit

The visiting team/officer should record the relevant information regarding internal and external audits.

j) Contraceptive Replenishment/Storage Conditions, etc.

The visiting team/officer should record the relevant information regarding stock and availability of contraceptives. The relevant columns are self-explanatory.

k) Medicine Availability/Storage Condition, etc.

The visiting team/officer should record the relevant information regarding availability of medicine as per the standard list.

l) Equipment/Furniture

The visiting team/officer should record the relevant information regarding condition of office equipment and furniture.

3. Programme Interventions**a) Service Delivery**

The visiting team/officer should clearly document the total number of FP and general clients who are attended by the respective RHS Centre.

b) Satellite Camps

The visiting team/officer should note the number of satellite camps arranged by RHS-A Centres during the last 3 months. Furthermore, the number of FP and general patients attended at the camps may also be ascertained from the record.

c) Contraceptive Performance during the Last 3 Months

The visiting team/officer should record the information for each type of contraceptive for the last 3 months.

d) Contraceptive Stock Position

The visiting team/officer should record the relevant information regarding stock and availability of contraceptives. The relevant columns are self-explanatory.

4. Information, Education, and Communication Advocacy

a) IEC Material

The visiting team/officer should check the availability and display/distribution of IEC material to the service delivery outlets/clients.

b) Interpersonal Communication

The visiting team/officer should check the motivation needs, group meetings, contacts made with RMPs, homoeopaths, and hakeems by FWAs (males) during the last 3 months with their approved tour programme and verification from the tour diary.

c) Visit to OPD/Gynae, etc.

The visiting team/officer should check the visits of the staff of the RHS-A centres to the hospital where the RHS-A is situated and assess improvement in performance due to motivation done by the RHS-A Centre.

d) Training Activities

The visiting team/officer should check the frequency/duration and nature of training imparted at the RHS-A Centre.

PM-03

Government of Pakistan
Ministry of Population Welfare
M&S Wing

MONITORING PROFORMA FOR MSU

1. Facility Information

District: _____

Tehsil: _____

Date: _____ Time: _____

Address: _____

Telephone No.: _____

Status	
Open	Closed

2. Management Issues

a) General Displays (In place):

Direction Board		Sign Board		Performance Chart		Area Profile	
Yes	No	Yes	No	Yes	No	Yes	No

b) Building:

Condition			Surrounding Condition		Ventilation		Water Available	
Good	Satisfactory	Poor	Hygienic	Un-Hygienic	Yes	No	Yes	No

Electricity		Easy to Access		Condition of OT/ Insertion Room		Storage Facilities	
Yes	No	Yes	No	Satisfactory	Unsatisfactory	Yes	No

If any of the above is not available/poor, explain the reason(s): _____

c) Capacity Building of Service Providers (Last training received by):

S. No.	Designation	Training Discipline	Date/Duration
1.			
2.			
3.			
4.			

d) Transport:

Available		Total No. of Vehicles		If Off Road				
		On Road	Off Road	Repairable	Not Repairable	Condemned		
Yes	No							

Remarks: _____

e) Clearance of Dues:

TA/DA Paid in Time		TA/DA Pending Since	Contingencies Paid in Time		Contingencies Pending Since	Proceeds of Contraceptive Sales	
Yes	No		Yes	No		Yes	No

Remarks: _____

f) Proceeds of Contraceptives Sales:

Month	Amount Due	Amount Deposited	Date of Deposit	Difference, if Any	Reason

Remarks: _____

g) Record and Registers Up-to-Date/Signed:

Stock Register		Cash Book		Log Book		Vehicle History	
Yes	No	Yes	No	Yes	No	Yes	No

h) Contraceptive Replenishment/Storage Condition, etc.:

Are the Contraceptives Being Received Regularly		Date Last Received	Storage Condition		All the Contraceptives Are Available in Sufficient Quantity	
Yes	No		Poor	Satisfactory	Yes	No

Remarks: _____

i) Medicines Availability/Storage condition, etc.:

Are the Medicines Being Received Regularly		Date Last received	Storage Condition		Medicines Available as per Standard List	
Yes	No		Poor	Satisfactory	Yes	No

Remarks: _____

3. Programme Interventions

a) Service Delivery:

	DURING LAST 3 MONTHS			
	1 st Month	2 nd Month	3 rd Month	Total
Total No. of FP Clients Attended				
Total No. of RH/General Patients				

b) MSU Camps:

	DURING LAST 3 MONTHS			
	1 st Month	2 nd Month	3 rd Month	Total
Number of Camps Scheduled				
Number of Camps Held				
Total No. of FP Clients Attended				
Total No. of RH/General Patients				

c) Contraceptive Performance during the Last 3 Months:

Month	Condom	Oral Pill			IUCD		Injection		Vasectomy	BTL
		COC	POP	EC	Cu-T-380-A	Cu-375	NET-EN	DMPA		
Total										
Average										

d) Contraceptive Stock Position:

Month		Condom	Oral Pill			IUCD		Injection	
			COC	POP	EC	CuT-380A	Cu-375	NET-E	DMPA
1	Stock Available as per CLR-5								
2	Stock Physically Available								
3	Stock Sufficient for: No. of Months								
4	Stock Expired								
5	Stock Near Expiry								

4. Information, Education, and Communication Advocacy

a) IEC Material:

Available		Displayed	
Yes	No	Yes	No

Remarks: _____

If IEC material available, please give details:

S. No.	Description	Quantity
1.		
2.		
3.		
4.		
5.		

If no, reason thereof: _____

Action planned: _____

Detail of teaching/training activities of RHS Centre during the last 3 months: _____

Guidelines: Monitoring Form for MSU (PM-03)

Purpose

This form is to be used by the monitoring team/officers of the PWDs/MoPW while visiting MSU facilities. The purpose of the form is to assess the proper functioning of the offices objectively and to provide support/guidance to the FTO in charge of the MSU. The monitoring team/officers will also provide information to senior-level management regarding the functioning of the visited facilities to address any shortcomings or issues faced by the centre. The teams/officers will also provide feedback to the MSU in-charge for improvement in the functioning of the MSU.

1. Facility Information

The team/officer should write down the name of the district/Tehsil visiting date, and the time when the officer visited the facility. The complete address and telephone number (if available) should be filled in clearly. The status of the facility should be marked.

2. Management Issues

a) General Displays

The team/officer should note the installation of direction boards/sign boards at visible and proper locations. The facility should have the up-to-date performance chart displayed in a simple and easily understandable/readable format. The map of the area should clearly show the location of service delivery outlets of PWDs and other line departments. Demographic indicators of Tehsil, e.g., total population, number of married women of reproductive age (MWRA), number of old and new users, age composition, and other related information should be displayed.

b) Building

The visiting team/officer should objectively assess the overall condition of the building, ventilation, availability of water, and electricity. He/she should physically verify the storage facilities and conditions available at the MSU. The team/officer should assess whether the office location is easily accessible for clients. The team/officer should also verify if the rent of the building is paid on time. In the remarks section, the officer should clearly report the reasons if the condition of the building is poor or the alternate building is not available.

c) Capacity Building for Service Providers

The team/officer should clearly fill in the respective columns on trainings attended by personnel of the facility. In the remarks column, the visiting officer should also mention training needs of the respective officers/officials.

d) Transport

The team/officer should note the transport position available at the facility. In the remarks section, he/she should check the reasons and duration for vehicle(s) being off road.

e) Clearance of Dues

The team/officer should assess the reasons for non-clearance of dues in time.

f) Proceeds of Contraceptives Sales

The team/officer should note that the proceeds of sales are deposited regularly/fully and also ascertain the reasons for money due, if any, from the proceeds of the sale.

g) Records and Registers

The teams/officer should check the registers from the respective staff of the MSU.

h) Contraceptive Replenishment/Storage Conditions, etc.

The visiting team/officer should record the relevant information regarding stock and availability of contraceptives. The relevant columns are self-explanatory.

i) Medicine Availability/Storage Conditions, etc.

The visiting team/officer should record the relevant information regarding availability of medicine as per the standard list.

3. Programme Interventions**a) Service Delivery**

The visiting team/officer should record the number of clients attended by MSU during the last 3 months.

b) MSU Camps

The visiting team/officer should record the information in the relevant boxes for the last 3 months.

c) Contraceptive Performance during the Last 3 Months

The visiting team/officer should record the information for each type of contraceptive for the last 3 months.

d) Contraceptive Stock Position

The visiting team/officer should record the relevant information regarding stock and availability of contraceptives. The relevant columns are self-explanatory.

4. Information, Education, and Communication Advocacy

a) IEC material

The visiting team/officer should check the availability and display/distribution of IEC material to the service delivery outlets/clients. Provide the details about available material and if not available, give reasons.

PM-04

Government of Pakistan
Ministry of Population Welfare
M&S Wing

MONITORING PROFORMA FOR FAMILY WELFARE CENTRE (FWC)

1. Facility Information

District: _____

Tehsil: _____

Date: _____ Time: _____

Address: _____

Telephone No.: _____

Status	
Open	Closed

2. Management Issues

a) General Displays (In place):

Direction Board		Sign Board		Performance Chart		Area Profile	
Yes	No	Yes	No	Yes	No	Yes	No

b) Building:

Condition			Surrounding Condition		Ventilation		Water Available	
Good	Satisfactory	Poor	Hygienic	Un-Hygienic	Yes	No	Yes	No

Electricity		Easy to Access		Condition of OT/ Insertion Room		Storage Facilities	
Yes	No	Yes	No	Satisfactory	Unsatisfactory	Yes	No

If the rent of the building not paid, explain the reason(s): _____

c) Staff Position:

Staff According to the Sanctioned Strength		No. of Vacant Posts	Is All Staff Present at the Time of Visit?	
Yes	No		Yes	No

d) Capacity Building of Service Providers (Last training received by):

S. No.	Designation	Training Discipline	Date/Duration
1.			
2.			
3.			
4.			

Knowledge/Skills of Service Provider

Satisfactory/Not satisfactory

e) Record and Registers:

Stock Register Up-to-Date		Addresses in Daily Client Register		CRC Slip Maintained		Maintenance of Diary of Field Visits by FWA(M)		Registration of Married Couples by FWA(F)		Follow-up Visits by FWA(F)	
Yes	No	Complete	Incomplete	Yes	No	Yes	No	Yes	No	Yes	No

Remarks: _____

3. Programme Interventions

a) Service Delivery:

	DURING LAST 3 MONTHS			
	1 st Month	2 nd Month	3 rd Month	Total
Total No. of Clients Registered				
Total No. of FP Clients Attended				
Total No. of New FP Clients Attended				
Total No. of RH/General Patients				

b) Contraceptive Performance and Stock Position during the Last 3 Months:

S. No.	Month	Condom	Oral Pill			IUCD		Injection		CS Total	Pre Natal	Post Natal	General Ailment
			COC	POP	EC	CuT- 380A	Cu-375	NET-E	DMPA				
1													
2													
3													
4	Total												
5	Average												
6	Stock Available as per CLR-5												
7	Stock Physically Available												
8	Stock Sufficient for: No. of Months												
9	Stock Expired												
10	Stock Near Expiry												
11	Expiry Date												

c) Contraceptive Replenishment/Storage Condition, etc.:

Are the Contraceptives Being Received Regularly		Date Last Received	Storage Condition		All the Contraceptives Are Available in Sufficient Quantity	
Yes	No		Poor	Satisfactory	Yes	No

Remarks: _____

d) Medicines Availability/Storage Conditions, etc.:

Are the Medicines Being Received Regularly		Date Last received	Storage Condition		Medicines Available as per Standard List	
Yes	No		Poor	Satisfactory	Yes	No

Remarks: _____

e) Equipment:

All Equipment Available as per Standard List		Condition of Available Equipment	
Yes	No*	Functional	Non-Functional*

Please attach

f) Validation of FP Clients

Satisfactory/Not Satisfactory

g) Social Mobilization

Meetings with community religious leaders/councilors, etc. (Yes/No)

4. Information, Education, and Communication Advocacy

a) IEC Material:

Available		Displayed	
Yes	No	Yes	No

If IEC material available, please give details:

S. No.	Description	Quantity
1.		
2.		
3.		
4.		
5.		

Guidelines: Monitoring Form for FWC (PM-04)

Purpose

This form is to be used by the monitoring team/officer of the PWDs/MoPW while visiting FWCs. The purpose of the form is to assess the proper functioning of the FWCs objectively and to provide support/guidance to the in-charge of the FWC. The monitoring team/officer will also provide information to senior-level management regarding the functioning of the visited facilities to address any shortcomings or issues faced by the centre. The team/officer will also provide feedback to the FWC in-charge for improvement in the functioning of the FWC.

1. Facility Information

Provide complete address of FWC/Service Delivery Point (SDP) visited including name of the district and Tehsil. (Please ignore the column for outlet code as it will be filled by the data entry operator while tabulating the information.)

2. Management Issues

a) General Displays

- **Direction Board Installed:** Observe whether the standard board showing the SOP location is installed or not and circle yes or no.
- **Sign Board Displayed:** Observe whether the standard signboard showing the SOP location is installed or not and circle yes or no.
- **Performance Chart Displayed:** Observe whether the charts showing updated performance are displayed in the SOP or not and circle yes or no.
- **Price List Displayed:** Observe whether the price list of contraceptives is displayed in the SOP or not and circle yes or no.

b) Building (Condition)

- **Cleanliness:** Observe cleanliness outside and inside the building, whitewash, and clean and functional toilet and circle the option.
- **Ventilation:** Observe whether ventilators/windows or exhaust fans are provided and circle the suitable option.
- **Water Available:** Check whether water for drinking and washing is provided.
- **Electricity:** Self-explanatory.
- **Insertion Room:** If yes, the state of cleanliness of the insertion room as well as the equipment is observed. Also check that the equipment is in working condition.
- **Easy to Access:** Observe whether the centre is located near the community or not, and/or whether there are any obstacles that prevent women from reaching the outlet.
- **Rent Paid:** Note the reason if the rent is not paid.

c) Staff Position

- **Staff According to the Sanctioned Strength:** Self-explanatory.
- **Number of Vacant Posts:** Note for which reason the posts were vacant and what the status is if the recruitment is in process.
- **Staff Presence at the Time of Visit:** If some staff is absent, note whether he or she is on leave or on tour. Verify from the leave record or tour plan.
- **List of Staff:** Staff position (Annex).

d) Capacity Building of Service Providers

- **Designation:** Self-explanatory.
- **Training Discipline:** Ask about the type of training, venue, and organizer.
- **Date and Duration:** Self-explanatory.
- **Knowledge/Skills of Health Provider:** Assess the knowledge of the health care provider by asking relevant questions and also asking the provider to perform certain actions, e.g., monitoring blood pressure, measuring body temperature, etc.

e) Record and Registers

- **Stock Register Update:** Check whether the stock register is properly maintained and tallies with the actual stock position, then circle yes or no.
- **Addresses in Daily Client Register:** Complete address of the client is written or not.

3. Programme Interventions

a) Service delivery

- **Total Number of Clients Registered in Last 3 Months:** Check the client register and fill in the monthly data.
- **Total Number of FP Clients Attended:** Check the client register and fill in the monthly data.
- **Total Number of New FP Clients Attended:** Check the client register and fill in the monthly data.
- **Total Number of RH Clients/Patients:** Check the client register and fill in the monthly data.

b) Contraceptive Performance and Stock Position during the Last 3 Months

- **Month:** In 1st column at S. No. 1, 2, and 3, enter the relevant months and fill in the data as per table by checking the data from register.
- **Total:** Make total of each column.
- **Average Monthly Consumption:** Divide total by 3 to get the average.

- **Stock Available as per CLR-5 Register:** Collect the information from CLR-5 and fill in the columns of the table.
 - **Stock Physically Available:** Count two or three items and cross-check with the stock register.
 - **Stock Sufficient for No. of Months:** Divide the stock by average monthly consumption and fill in the column.
 - **Stock Expired:** Check the expiry data and fill in the column.
 - **Stock Near Expiry:** Check the stock near expiry and give expiry date.
- c) Contraceptive Replenishment/Storage Condition, etc.
- **All the Contraceptives Being Received:** Self-explanatory.
 - **Date Last Received:** Self-explanatory.
 - **Storage Condition:** Self-explanatory.
 - **All the Contraceptives Are Available in Sufficient Quantity:** Check whether the contraceptives are available and indicate in case of any shortfall.
- d) Medicines Availability/Storage Conditions, etc.
- **All the Medicines Being Received:** Self-explanatory.
 - **Date Last Received:** Self-explanatory.
 - **Storage Condition:** Self-explanatory.
 - **Medicines Available as per Standard List:** Check whether the medicines are available and indicate in case of any shortfall.
- e) Equipment
- **All Equipment Available as per Standard List:** Self-explanatory.
 - **Condition of Available Equipment:** Self-explanatory.
- f) Validation of FP Clients
- **Satisfactory/Not Satisfactory:** Check the FP client register and then visit the client with the FWW.
- g) Social Mobilization
- **Meetings with Community Religious Leaders/Council Members, etc.:** Random check within the vicinity by asking from people.
- #### 4. Information, Education, and Communication Advocacy
- a) IEC Material
- The visiting team/officer should check the availability and display/distribution of IEC material to the service delivery outlets/clients. Provide the details about available material and if not available, give reasons.

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The finalization of this manual was not an easy task. However, knowledge is changing so quickly that updates to the content and the addition of newer concepts were needed.

A consultative meeting was called by FALAH for revising the national standards, with Jhpiego taking the lead. The meeting was facilitated by Dr. Jeffrey Smith, Dr. Waqar Saleem, Dr. Fauzia Assad, Dr. S. H. Shoaib, and Dr. Ali Mohammad Mir. We are thankful to all of them for facilitating the consultative meeting.

The meeting was attended by staff of the Ministry of Population Welfare, represented by persons from the head office at Islamabad as well as staff of Regional Training Institutes, RHS-A Training Centres, representatives from the Institute of Public Health (IPH), and others. We thank them all for providing valuable support to this effort.

The consultative meeting provided a good platform for making changes to the manual. The participants also suggested adding two new chapters on “Healthy Timing and Spacing of Pregnancy” and “Postpartum Family Planning”. FALAH is grateful to Jhpiego, in particular to Dr. Ricky Lu and Dr. Sue Tredwell, for their work on these chapters.

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