

Crimean-Congo Haemorrhagic Fever Cases Investigation Report - June 2014, Peshawar, Khyber Pakhtunkhwa, Pakistan (03 Patients from Afghanistan)

Background:

On 26th June 2014, the Epidemic Investigation Cell (EIC), Public Health Laboratories Division, National Institute of Health (NIH), Islamabad communicated to the Provincial Health Directorate Khyber Pakhtunkhwa about the 03 CCHF cases from Afghanistan in Khyber Teaching Hospital (KTH) and Hayatabad Medical Complex (HMC) Peshawar. These patients had a history of fever, mental confusion, bleeding from nose (epistaxis) and blood in stools (malena). The EIC-NIH requested Dr. Muhammad Saleem, NSTOP Officer Peshawar also working as Coordinator Health Sector Reforms Unit (HSRU), Health Secretary Office / Fellow FELTP 5th cohort on 26th June 2014 to properly investigate the case as the earlier investigations were insufficient and inconclusive.

Objectives:

- To take detailed history of illness and development of symptoms.
- To investigate possible source of infection; contact with animals/ticks and travel history if any.
- To enlist all close contacts of the patient in order to assess their current status to rule out possibilities of disease transmission.

Methodology:

Review of the illness histories and investigations carried out from the record of the hospitals (KTH and HMC, Peshawar) was undertaken besides personal interviews with the concerned physicians, doctors, and nursing staff of the said hospital along with the available attendants of the patients. The hospitals where these 03 patients were admitted and 02 of these 03 patients are still getting treatment in Peshawar, Pakistan were visited. Surveillance Coordinator DEWS WHO-EHA based in Peshawar was contacted in order to know the preliminary details and he accompanied the investigator during the hospital visits. Active contact tracing was undertaken among the staff of the Medical Wards/Isolation Rooms where they have been treated by using the following operational case definition.

Probable Case:

Suspected case with acute history of febrile illness 10 days or less, AND any two of the following: Thrombocytopenia $<50,000/\text{mm}^3$, petechial or purpuric rash, epistaxis, haematemesis, gum bleeding, haemoptysis, blood in stools, ecchymosis, other haemorrhagic symptom – AND no known predisposing host factors for haemorrhagic manifestations¹.

Contact:

Any person who has cared the patient in hospital, shared house, room or a vehicle with the patient and who has given bath to the dead body before the burial.

Study Area:

The two tertiary care hospitals in Peshawar, Khyber Pakhtunkhwa Province Pakistan i.e. Khyber Teaching Hospital and Hayatabad Medical Complex; where all these 03 patients have been admitted and two of them are still getting treatment.

Visited Health Facility:

- Khyber Teaching Hospital, Peshawar (Public sector)
- Hayatabad Medical Complex, Hayatabad, Peshawar (Public sector)

Key Persons Met or talked/contacted telephonically:

- Dr. Mohammad Khalil Akhtar, SO DEWS WHO-EHA, Peshawar
- Dr. Mumtaz Ali Khan, Medical Officer, EIC-NIH, Islamabad (telephonically)
- Dr. Mujtaba, RMO / Acting MS, Khyber Teaching Hospital (KTH), Peshawar
- Ms. Rozina, Staff Nurse, Private Rooms-B/Isolation, KTH, Peshawar
- Mr. Shamsul Iqbal, Focal Person (Isolation), KTH, Peshawar
- Dr. Asmatullah, Junior Registrar Med-E Unit, KTH, Peshawar
- Mr. Mohammad Nabi (Relative of Patient Abdul Ghaffar), KTH, Peshawar
- Dr. Said Ali Khan, MS, Hayatabad Medical Complex (HMC), Peshawar
- Dr. Waliur Rahman, DMS/Focal Person, HMC Peshawar
- Dr. Tariq, Senior Registrar Med-B Unit, HMC Peshawar
- Dr. Niaz Ali, Junior Registrar Med-A Unit, HMC Peshawar
- Ms. Noreen, Staff Nurse Med-B Unit, HMC Peshawar
- Ms. Riffat Ibrahim, Staff Nurse Isolation Rooms, HMC Peshawar
- Ms. Durre Shahwar, Staff Nurse Isolation Rooms, HMC Peshawar
- Mr. Ziaullah (Cousin of Patient Faheedullah), HMC Peshawar

Facts Revealed:

Patient No. 1: Mr. Abdul Ghaffar S/O Mr. Mohammad Noor (Alive till reported date)

Mr. Abdul Ghaffar S/O Mr. Mohammad Noor, aged 59 years / Male resident of **Village Isarak, Balkh (Mazar Sharif) in Afghanistan**. On **12-06-2014**, Mr. Abdul Ghaffar has developed high grade fever; body aches, anorexia and mental confusion. Symptoms were developed in the village while coming from a **cattle market in Balkh (Mazar)**. He was taken to an unknown local GP and then later on taken to GP Dr. Syed Faridullah Samim in Mazar Sharif (his mobile no in Afghanistan is 0093787817500) on **15-6-2014**, and was then taken to **Peshawar** on **20-6-2014** as having started passing blood in stool along with mild nasal bleeding (epistaxis). On reaching Peshawar, he was taken to the casualty of Khyber Teaching Hospital and from there he was admitted in Medical-E Unit. Later on, he was shifted to the Isolation Room on **23-6-2014**. He was provisionally suspected as a case of viral haemorrhagic fever. At the time of arrival, his **platelet**

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count was **98,000/cmm** and was also confirmed as **Positive HBs Ag**. He was put on platelet concentrate along with Rabivirin tablets and other supportive treatment.

Blood sample of patient was collected and dispatched to NIH Islamabad for CCHF PCR. The report received from NIH Islamabad revealed that **“CCHF Virus RNA Detected”** in the blood sample taken from the patient. As of today the nasal bleeding and blood in stools has stopped. He has started taking food and improving. His platelet count has improved and is now 110,000/cmm. His contact no's are; cell no: 0093770265857 (Mohammad Nabi – Behsud, Jalalabad, Afghanistan) and 03367380642 (Mohammad Nabi – Pakistan). His contact details comprising of physicians, doctors, nurses, paramedical/support staff and relatives are as under;

S#	Name	Age / Sex	Relationship with Patient	Type of Contact	Date of Contact	To be followed up to	Outcome
1	Dr. Hashimuddin	52/M	Physician/Prof	Care giver	21.06.2014	04.07.2014	Afebrile
2	Dr. Jamalluddin	48/M	Physician/AP	Care giver	21.06.2014	04.07.2014	Afebrile
3	Dr. Bughdad	45/M	Physician/SR	Care giver	21.06.2014	04.07.2014	Afebrile
4	Dr. Asmatullah	35/M	Doctor/JR	Care giver	21.06.2014	04.07.2014	Afebrile
5	Dr. Fahad	28/M	Doctor/TMO	Care giver	20.06.2014	03.07.2014	Afebrile
6	Dr. Arifa	24/F	Doctor/HO	Care giver	20.06.2014	03.07.2014	Afebrile
7	Mr. Shamsul Iqbal	55/M	P. Technician	Care giver	23.06.2014	06.07.2014	Afebrile
8	Mr. Hayat Khan	40/M	P. Technician	Care giver	23.06.2014	06.07.2014	Afebrile
9	Ms. Ishrat Sadiq	28/F	Staff Nurse	Care giver	23.06.2014	06.07.2014	Afebrile
10	Ms. Rozina	30/F	Staff Nurse	Care giver	23.06.2014	06.07.2014	Afebrile
11	Ms. Kalsoom	29/F	Staff Nurse	Care giver	23.06.2014	06.07.2014	Afebrile
12	Ms. Shazia	30/F	Staff Nurse	Care giver	23.06.2014	06.07.2014	Afebrile
13	Ms. Robina	28/F	Staff Nurse	Care giver	23.06.2014	06.07.2014	Afebrile
14	Ms. Hasina	22/F	Student Nurse	Care giver	23.06.2014	06.07.2014	Afebrile
15	Ms. Robina	21/F	Student Nurse	Care giver	23.06.2014	06.07.2014	Afebrile
16	Ms. Mehnaz	20/F	Student Nurse	Care giver	23.06.2014	06.07.2014	Afebrile
17	Ms. Nabila	20/F	Student Nurse	Care giver	23.06.2014	06.07.2014	Afebrile
18	Mr. Sohail	30/M	Sweeper	Cleaner	23.06.2014	06.07.2014	Afebrile
19	Mr. Abdul Wahid	30/M	Son	Attendant	12.06.2014	26.06.2014	Afebrile
20	Mr. Mohd Nabi	29/M	Relative	Attendant	19.06.2014	30.06.2014	Afebrile
21	Mrs. Hamida	50/F	Wife	Attendant	12.06.2014	26.06.2014	Afebrile
22	Mrs. Bibi Gul	58/F	Relative	Attendant	12.06.2014	26.06.2014	Afebrile
23	Dr. S. Faridullah	?/M	Afghan GP	Care giver	15.06.2014	28.06.2014	Afebrile?

Patient No. 2: Mr. Fateehullah S/O Mr. Jan Mohammad (Alive till reported date)

Mr. Fateehullah (mistakenly written on treatment chart and reported as Mr. Faheedullah) S/O Mr. Jan Mohammad, aged 18 years / Male resident of Village Akora Khattak, District Nowshera in Khyber Pakhtunkhwa Pakistan. Basically, he is an **Afghan refugee** settled in Akora Khattak and a student in a local seminary. He went to Qara Bagh in Kabul Afghanistan on 07-06-2014 to attend a wedding ceremony of a close relative on **14-06-2014** the day when he became ill. He has developed high grade fever; body aches and two days later started with bleeding from nose (epistaxis). He was taken to Kabul headquarter hospital for treatment and then taken to Jalalabad headquarter hospital in Afghanistan while on way to Pakistan. He has reached **Peshawar** in Pakistan on **18-6-2014** and was admitted in Medical-B Ward Hayatabad

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Medical Complex Peshawar on the same day. He was kept in Isolation room as being provisionally suspected as a case of viral haemorrhagic fever; he was shifted to another Isolation Room in the Private Rooms on **26-6-2014**. At the time of arrival, his **platelet count was 18,000/cmm**. He was put on platelet concentrate along with other supportive treatment.

Blood sample of patient was collected and dispatched to NIH Islamabad for CCHF PCR. The report intimated from NIH Islamabad revealed that **“CCHF Virus RNA Detected”** in the blood sample taken from the patient. As of today the nasal bleeding has stopped. He has started taking food and improving. His platelet count has improved and is now 153,000/cmm. His contact no's are; cell no: 03041097572 (Jan Mohammad – Akora Khattak Pakistan) and 03451918986 (Ziaullah – Swabi Pakistan). His contact details comprising of physicians, doctors, nurses, paramedical/support staff and relatives are as under;

S#	Name	Age / Sex	Relationship with Patient	Type of Contact	Date of Contact	To be followed up to	Outcome
1	Dr. Tariq	40/M	Physician/SR	Care giver	18.06.2014	01.07.2014	Afebrile
2	Dr. Ibrar	28/M	Doctor/TMO	Care giver	18.06.2014	01.07.2014	Afebrile
3	Dr. Shahab	28/M	Doctor/TMO	Care giver	18.06.2014	01.07.2014	Afebrile
4	Dr. Waseem	24/M	Doctor Med-B	Care giver	18.06.2014	01.07.2014	Fever/flu
5	Dr. Irum	27/F	Doctor ENT-B	Care giver	18.06.2014	01.07.2014	Flu/fever
6	Dr. Sajid	30/M	TMO ENT-B	Care giver	18.06.2014	01.07.2014	Afebrile
7	Dr. Imran	28/M	TMO ENT-B	Care giver	25.06.2014	08.07.2014	Afebrile
8	Dr. Khalil	30/M	TMO ENT-B	Care giver	24.06.2014	07.07.2014	Afebrile
9	Ms. Haseena	25/F	Staff Nurse	Care giver	18.06.2014	01.07.2014	Afebrile
10	Ms. Noreen	38/F	Staff Nurse	Care giver	18.06.2014	01.07.2014	Afebrile
11	Ms. Sadia	27/F	Staff Nurse	Care giver	18.06.2014	01.07.2014	Afebrile
12	Ms. Saima Anjum	27/F	Staff Nurse	Care giver	18.06.2014	01.07.2014	Afebrile
13	Ms. Saima Noreen	25/F	Staff Nurse	Care giver	18.06.2014	01.07.2014	Afebrile
14	Ms. Saima	18/F	Student Nurse	Care giver	18.06.2014	01.07.2014	Afebrile
15	Ms. Tahira	17/F	Student Nurse	Care giver	18.06.2014	01.07.2014	Afebrile
16	Ms. Munazza	17/F	Student Nurse	Care giver	18.06.2014	01.07.2014	Afebrile
17	Mr. Kaseer	40/M	Sweeper MB	Cleaner	18.06.2014	01.07.2014	Afebrile
18	Mr. Jan Ali	40/M	Dispenser MB	Care giver	18.06.2014	01.07.2014	Afebrile
19	Ms. Safia	32/F	Nurse ENT-B	Care giver	18.06.2014	01.07.2014	Afebrile
20	Ms. Zainab	27/F	Nurse ENT-B	Care giver	25.06.2014	08.07.2014	Afebrile
21	Mr. Hameedullah	20/M	Ward boy ENT	Care giver	18.06.2014	01.07.2014	Fever
22	Mr. Amjad	22/M	Sweeper ENT	Cleaner	18.06.2014	01.07.2014	Afebrile
23	Mr. Waqar	20/M	Sweeper ENT	Cleaner	25.06.2014	08.07.2014	Afebrile
24	Ms. Riffat Ibrahim	31/F	Nurse P/Room	Care giver	26.06.2014	09.07.2014	Fever
25	Ms. Dure Shahwar	27/F	Nurse P/Room	Care giver	26.06.2014	09.07.2014	Afebrile
26	Ms. Javeria	30/F	Nurse P/Room	Care giver	26.06.2014	09.07.2014	Afebrile
27	Ms. Nazia	21/F	Nurse P/Room	Care giver	26.06.2014	09.07.2014	Afebrile
28	Mr. Akhtar Gul	40/M	Sweeper PR	Cleaner	26.06.2014	09.07.2014	Afebrile
29	Mr. Jan Mohd	40/M	Father	Attendant	18.06.2014	01.07.2014	Afebrile
30	Mr. Muslim	35/M	Broth-n-Law	Attendant	14.06.2014	27.06.2014	Afebrile
31	Mr. Ziaullah	21/M	Cousin	Attendant	18.06.2014	01.07.2014	Afebrile
32	Mr. Rehmat Shah	45/M	Relative	Visitor	19.06.2014	02.07.2014	Afebrile

****Three of the contacts as highlighted in the above table have reported illness since contact**

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Patient No. 3: Mr. Abdullah S/O Mr. Abdul Qadir (Expired on 26-06-2014)

Mr. Abdullah S/O Mr. Abdul Qadir, aged 32 years / Male resident of **Pull Akhishti, Kabul Afghanistan**. He became ill on **16-06-2014** in Kabul and has developed high grade fever along with bleeding from nose (epistaxis) later on. He was treated in Kabul Asia Hospital (the laboratory reports dated 21-06-2014 of Kabul Asia Hospital located in Parwan 3 Square Kabul has revealed the name of Dr. Wahid Shah). He was taken to **Peshawar** in Pakistan, reached Peshawar on **22-6-2014** and was admitted in Medical-A Ward Hayatabad Medical Complex Peshawar on the same day. He was kept in Isolation room as being provisionally suspected as a case of viral haemorrhagic fever; he was shifted to another Isolation Room in the Private Rooms on **23-6-2014**. At the time of arrival, his **platelet count was 9,000/cmm**. He was put on platelet concentrate along with other supportive treatment. His condition deteriorated and has **expired** in the early hours of **26-06-2014**.

Blood sample of patient was collected before his death and was dispatched to NIH Islamabad for CCHF PCR. The report intimated from NIH Islamabad revealed that **“CCHF Virus RNA Detected”** in the blood sample taken from the patient. His contact no's are; cell no: 0093777673114 (Gul Meer – Afghanistan) and 03431904577 (Pakistan). His contact details comprising of physicians, doctors, nurses, paramedical/support staff and relatives are as under;

S#	Name	Age / Sex	Relationship with Patient	Type of Contact	Date of Contact	To be followed up to	Outcome
1	Dr. Niaz Ali	34/M	JR Med-A	Care giver	22.06.2014	05.07.2014	Afebrile
2	Dr. Seema	27/F	Doctor/TMO	Care giver	22.06.2014	05.07.2014	Afebrile
3	Dr. Humayun	30/M	Doctor/TMO	Care giver	22.06.2014	05.07.2014	Afebrile
4	Dr. Sabaoon	25/F	Doctor/HO	Care giver	22.06.2014	05.07.2014	Afebrile
5	Dr. Abdul Wahid	25/M	Doctor/HO	Care giver	22.06.2014	05.07.2014	Afebrile
6	Dr. Adil	24/M	Doctor/HO	Care giver	22.06.2014	05.07.2014	Afebrile
7	Dr. Hamid	25/M	Doctor/HO	Care giver	22.06.2014	05.07.2014	Afebrile
8	Ms. Farkhanda	35/F	Staff Nurse	Care giver	22.06.2014	05.07.2014	Afebrile
9	Ms. Ismat	32/F	Staff Nurse	Care giver	22.06.2014	05.07.2014	Afebrile
10	Ms. Naveeda	27/F	Staff Nurse	Care giver	22.06.2014	05.07.2014	Afebrile
11	Ms. Sumera	28/F	Staff Nurse	Care giver	22.06.2014	05.07.2014	Afebrile
12	Ms. Fozia	28/F	Staff Nurse	Care giver	23.06.2014	06.07.2014	Afebrile
13	Ms. Farah	19/F	Student Nurse	Care giver	22.06.2014	05.07.2014	Afebrile
14	Ms. Sharifa	20/F	Student Nurse	Care giver	22.06.2014	05.07.2014	Afebrile
15	Ms. Kamila	17/F	Student Nurse	Care giver	22.06.2014	05.07.2014	Afebrile
16	Mr. Farid	25/M	Ward boy	Care giver	22.06.2014	05.07.2014	Afebrile
17	Mr. Ihsan	30/M	Ward boy	Care giver	23.06.2014	06.07.2014	Afebrile
18	Ms. Riffat Ibrahim	31/F	Nurse P/Room	Care giver	23.06.2014	06.07.2014	Fever
19	Ms. Dure Shahwar	27/F	Nurse P/Room	Care giver	23.06.2014	06.07.2014	Afebrile
20	Ms. Javeria	30/F	Nurse P/Room	Care giver	23.06.2014	06.07.2014	Afebrile
21	Ms. Nazia	21/F	Nurse P/Room	Care giver	23.06.2014	06.07.2014	Afebrile
22	Mr. Akhtar Gul	40/M	Sweeper PR	Cleaner	23.06.2014	06.07.2014	Afebrile
23	Mr. Gul Meer	20/M	Relative	Attendant	16.06.2014	27.06.2014	Afebrile?
24	Mr. ????	22/M	Relative	Attendant	16.06.2014	27.06.2014	Afebrile?
25	Dr. Wahid Shah	?/M	GP Kabul	Care giver	21.06.2014	04.07.2014	Afebrile?

****One of the contacts as highlighted above is febrile, while the last 03 are to be probed for any illness**

Travel History, Occupation & history of contact with animals:

Patient Abdul Ghaffar is dealing in livestock/animals and has visited the cattle market in Balkh (Mazar Sharif) just before the illness.

Patient Fateehullah is a student in local seminary in Akora Khattak Pakistan and was in Kabul (Afghanistan) for a wedding ceremony just before illness. It is believed that he has handled the raw meat during slaughtering of animal on the eve of the wedding.

Patient Abdullah was working as a security guard in Kabul (Afghanistan) and nothing is known about any travel just before illness. It is believed that his family was keeping animals in their house, which is a very common practice for people living in suburbs of Kabul and also among the low socio-income group people of Afghanistan.

Preventive Measures taken at KTH & HMC Hospitals Peshawar:

- Terminal cleaning / disposal of the patients usable (linen, beds, curtains, used equipment etc) – discussed and advised.
- Fumigation of the Medical Wards and Isolation Rooms was advised.
- Monitoring for Fever twice in a day for consecutive 15 days for all contacts and to report immediately to hospital in case of fever (100⁰ F & Above).
- The blood samples of the suspected contacts (health care givers) to be taken by the WHO SO DEWS for onward processing at NIH Islamabad.
- Health education sessions were held with the attendants of the patients regarding this disease.
- Health care providers were sensitized to use Personal Protective Equipments (PPEs).

Recommendations:

- Separate isolation rooms / ward in all private/public sector hospitals.
- Bio-safety measures to avoid nosocomial infections.
- All medical / para-medical staff and attendants should use Personal Protective Equipments (PPEs) while handling any suspected patients.
- All used items should be autoclaved before incinerating.
- Seroconversion analysis of closed contacts is recommended as virus is circulating in this region since last few years.

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- Dr. Mohammad Khalil Akhtar, SO DEWS WHO-EHA, Peshawar
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- Dr. Said Ali Khan, MS, Hayatabad Medical Complex (HMC), Peshawar
- Dr. Waliur Rahman, DMS/Focal Person, HMC Peshawar

References:

1. CCHF Case definition; DEWS (WHO), June 2009. Cited on 26 June 2014 at <http://www.nih.org.pk/files/Newsletter/Case%20Definitions%20on%20Infectious%20Diseases.pdf>

Action Photographs:



Khyber Teaching Hospital, Peshawar



Hayatabad Medical Complex, Peshawar