**Global Ebola outbreak-Potential treat to Bangladesh**

The recent Ebola outbreak in West Africa is the burning public health issue in present world. There have been in excess of 21000 reported confirmed. Probable and suspected case of Ebola virus disease in Guinea. Liberia and Sieera Leone with more then 8300 death. No country in the world is immune to this disease including Bangladesh. That’s why

Alarming situation in that a total of 843 health care workers are known be infected with Ebola virus diseases up to the end of 11 January 2015 in all affected and previously affected countries , of which 500 of then died. That’s why, World Health organization (who) has now declared an international health emergency in response.

**What is Ebola?**

Ebola is a viral illness caused by Ebola virus. The virus family Filoviridae include 3 genera: Cuevavirus,Marburg virus and Ebola virus. There are 5 species that have been identified. Zaire, Bundibugyo, Sudan, Reston and Taiforest. The virus causing the 2014 West African out break belongs to the Zaire species.

Ebola first appeared in 1976 in 2 simultaneously outbreak in Nzara, Sudan and in Yambuku, Democratic republic of Congo. The later was in village situated near the Ebola river, from which the diseases takes its name.

**Transmission**

It is thought that fruit bats of the Pteropodidae family are natural Ebola virus hosts. Ebola is introduced into human population through close contact with the blood, secretions, organs or other body fluid of infected animals such as Chimpanzees, gorillas, fruit bets, monkeys, forest antelope and porcupines found ill or dead or in the rainforest

Ebola than spreads through human to human transmission via contact with the blood through broken skin or mucus membrane, secretions, organs or other body fluids of infected people. Burial ceremonies in which mourners have direct contact with body of the deceased person can also play a role in the transmission of Ebola. Health care workers have frequently been infected while treating patient with suspected or confirmed Ebola virus disease.

**Signs and symptoms**

The incubation period of Ebola virus disease is 2 to 21 days. First symptoms are the sudden onset of fever, intense weakness, muscle pain, headache and sorethroat. This is followed by vomiting, diarrhoea, rash, symptoms of impaired kidney and liver function and in same cases both internal and external bleeding. Laboratory finding include low while blood cell and platelets count and elevated liver enzymes. ELISA, antigen detection test, virus isolation by cell culture etc. are generally used for diagnosis of EVD.

**Vaccine and Treatment:**

No licensed vaccine for EVD is available. Several vaccines are being tested and 2 potential vaccine are undergoing human safely testing. No specific treatment is available. New drug therapies ( eg. ZMapp,Brincidofovir) are being evaluated. Supportive care- rehydration with oral or intravenous fluid and treatment of specific symptoms –improves survival.

**Prevention and control**

Good outbreak control relies on applying a package of interventions, namely case management, surveillance and contract tracing, a good laboratory service, safe burials and social mobilization. Community engagement is key to successfully controlling outbreak. Raising awareness of risk factors for Ebola infection and protective measures that individuals can take is an effective way to reduce human transmission. Risk reduction massaging should focus on several factors:

* **Reducing the risk of wildlife-to-human transmission** from contact with infected fruit bats or monkeys and the consumption of their raw meat. Animal should be handled with gloves and other appropriate protective clothing. Animal products (blood and meat) should be thoroughly cooked before consumption.
* **Reducing the risk of human-to-human transmission** from direct or close contact with people with Ebola symptoms, particularly with their bodily fluids. Gloves and appropriate personal protective equipment should be worn when taking care of ill patients at home. Regular hand washing is required after visiting patients in hospital, as well as after taking care of patients at home.
* **Out break containment measures** including prompt and safe burial of dead, identifying people who may have been in contact with someone infected Ebola ,monitoring the health of contacts for 21 days, the importance of separating the health from the sick to prevent further spread, the importance of good hygiene and maintaining a clean environment.

**Controlling infection in health –care setting:**

Health-care workers should always take standard precautions when caring for patients, regardless of their presumed diagnosis. These include basic hand hygiene, respiratory hygiene, use of personal protective equipment (to block splashes or other contact with infected materials), safe injection practices and safe burial practices.

**Potential treat to Bangladesh**

As many of our of police and army individual are working in West African countries under UN peace mission, that is a great risk of transmission of EVD in our country. This whole world is now a global village. This present concept and frequent travelling trends also puts a great threat of Ebola outbreak to Bangladesh. Proper monitoring of individuals coming from Ebola affected countries in Airports and sea ports and appropriate measures like Isolation of infected individual and quarantine of suspected persons may reduce the risk of Ebola transmission to Bangladesh.