Editorial

How to Prevent Swine Flu

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January is the peak season for swine flu. There are four basic subtypes of this flu — H3N2, H3N1, H1N2, and H1N1. Swine influenza is an infection of the respiratory tract caused by a type of virus that is endemic and common in pigs worldwide. Influenza A causes acute sickness and serious complications sometimes leading to death. The flu is transmitted from an infected animal to an uninfected animal through direct contact and can increase through intensive fanning. People who work with poultry or swine are at an increased risk, such as cattle farmers, veterinarians and meat processing workers.

The symptoms of the disease include fever, sore throat, runny nose, lethargy, pressure in chest, rapid breathing, bluish or grey skin colour, low blood pressure due to dehydration, no desire of liquid intake, dizziness and confusion, very high body temperature and respiratory failure, lack of appetite, coughing, nausea, vomiting and diarrhea. The virus is spread through migrants and is extremely transmittable. The symptoms are comparable to the common flu and therefore often create confusion in diagnosis. Signs of a more serious swine flue infection may include pneumonia and respiratory failure.

The disease is not very dangerous and can be easily controlled in early stages. At present we do not have a good surveillance system at our airports, ports or borders to check the entrance of swine flu virus carriers. We need to establish a good system because the epidemic is very much present in our neighboring countries. In previous year, 600 people have died of swine flue only in India, 300 in China, 140 in Iran and 15 in Afghanistan. 159 deaths occur in Mexico and 1300 people admitted in hospitals of Mexico upto 29th April 2009.

In 2009, WHO has declared the flu a “Public Health Emergency of International Concern” that could become a pandemic or global outbreak of serious disease.

In Pakistan, according to National Institute of Health (NIH), about 100 people have been tested positive for H1N1 virus in this winter. However, the NIH officials believe the situation is under control. Maximum numbers of cases have been reported in Punjab (32), followed by Sindh (29), KP (15) and 24 from other places of the country.

The H1N1 virus does not survive cooking temperatures of 71^{0}C or more. Nonetheless, like all other viruses it can adapt to different environments, evolving through gene modification. H1N1 is the same strain which causes the common cold but the latest version has evolved into a wholly human disease now, which can spread among people through coughing and sneezing. Over-crowding, moving in public places and sharing a room with many family members increase the risk.

Sindh Health Minister Dr. Sagheer Ahmed had recently inaugurated the Sentinel Influenza Surveillance Laboratory and the Medical Out-Patient Department at Civil Hospital Karachi (CHK) with the help of international donor agencies. The centre will provide treatment for viral diseases in the province, including swine flu. It has a special H1N1 Surveillance Cell. Dr. Sagheer Ahmed had promised to activate the lab and give accurate results, but conceded that natural disasters like the recent floods have taken a toll on the national exchequer leaving little to be spent on health and development.

"According to international recommend-ations, we are required to closely watch the behaviour of the virus. For laboratory-based surveillance of seasonal influenza virus, Pakistan has a robust laboratory network consisting of an apex laboratory at NIH, as well as one laboratory each at King Edward Medical College, Lahore, Civil Hospital, Karachi, Bolan Medical College, Quetta and Hayatbad Medical Complex, Peshawar. Two more laboratories will be set up in Gilgit and Muzaffarabad in collaboration with the Centres for Diseases Control, Atlanta," says Executive Director of NIH Dr. Birjees Mazhar Qazi. Children, pregnant women, old and those who are already ill are more vulnerable. It is, therefore, important for health departments of all the provinces to run public awareness campaigns, especially for the vulnerable groups, which deal with animal fanning.

"During the high transmission season, samples will be collected from the OPDs of hospitals under standardized SOPs to determine the range of the circulating influenza virus. It will also enable us to study the characteristics of last year's pandemic strain and to detect any possible changes. Vaccination is an important tool for self-protection. Seasonal flu vaccine is now available in Pakistan."

The examples of two studies given below:-

According to the study, a FINNISH research has presented promising data that may show the effectiveness of flu vaccines for younger children, which they hope will prompt countries to immunize children between the ages of six and 35 months.

The United States and Finland are currently among the few countries that recommend flu vaccination for children under two years of age. A non-randomized, prospective cohort trial found that the vaccine was 66% effective in children younger than three years old and that vaccination was not accompanied by adverse events. The trial was conducted during the 2007-2008 in flu season in Turku, Finland. This was the first year following the country's with a 0.5ml dose Universal flue vaccination recommendation for children between the ages of six to 35 months.

The flue vaccination was free at local health centers and was effective against influenza A/HINI and H3N2. though not as effective against the influenza B subtype, C1DRAP News reports. Effectiveness against type A was found to be 84%, while effectiveness against type B was 45%, according to the study.

Influenza type A or B was confirmed in 7 of 154 fully vaccinated children and was confirmed in 61 unvaccinated children in the study. Only four percent of vaccinated children under the age of two contracted the disease, while 12% of the unvaccinated children contracted either type of flu.

According to a new study reveals that men, but not women, vaccinated in the morning produced a better peak antibody response to both hepatitis A and the influenza strain. Led by Anna Catriona Phillips of the University of Birmingham, researchers assessed the response to a hepatitis A vaccine in young healthy adults and also examined responses to the annual influenza vaccination in older community-based adults. In the first study, 75 young participants were vaccinated with the hepatitis A vaccine during a morning session or early evening session. In the second study, 90 older adults attended their medical practice for the annual influenza vaccination and received the vaccination in the morning or in the afternoon. Man vaccinated in the morning showed the strongest immune response. Almost twice as many men showed a twofold increase in antibody response when vaccinated in the morning as opposed to the afternoon.

Fluarix, a vaccine, has been dubbed to protect people for almost a year and costs Rs500 to 600. Acetaminophen, a five-day course of anti-viral is also prescribed. It costs Rs2000 per course.

Health officials need to be deployed at international airports, seaports and border posts to screen suspected patients, install thermal scanners and provide pre-pandemic vaccine at hospitals. Children and adults with flu symptoms should refrain from attending educational institutes.

Expensive swine flu scanners were placed in Pakistan's major airports but most of them are not working now. Isolation wards need to be set up and vaccines need to be stored in bulk in all major hospitals across Pakistan. There is no cure for swine flu, only precaution. The swine flu can be prevented by improved hygiene, avoiding contact with flu patients and coughing animals.