

# THREAT OF SWINE FLU OUTBREAK

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Influenza A (H1N1) virus is responsible for swine flu. It can easily cross the species barrier and zoonotic jumps from pigs to humans have been observed. It emerged from Mexico in 2009 and spread with travelers worldwide, resulting in swine flu pandemic. More than 195 countries have reported confirmed human cases of swine flu.<sup>1</sup>

Like seasonal flu, the swine flu virus is spread mainly from person to person through coughing or sneezing of persons with influenza. Everyday items such as door handles, computer keyboards, mobiles, phones and TV remote controls are all common surfaces where flu viruses can be found. Because it is caused by a reassortant virus and the human population has not encountered the virus before, there is little immunity to this strain which can easily cause infection and spread from person to person with everyone at risk of catching it. Most of the cases of swine flu are seen in children and young people, in contrast to seasonal flu that predominantly affects the elderly. Due to the pandemic threats of swine flu and its ultimate public health impact, it has achieved a global focus. Unpredictable nature of the swine flu outbreaks is a challenge for researchers to discover effective strategies against it.<sup>2</sup>

Swine flu has a wide clinical spectrum ranging from afebrile, mild upper respiratory tract illness, or febrile influenza, to severe complications, including pneumonia. Infants and young children, adults above 60 years age, persons with chronic diseases such as diabetes, heart and lung diseases and immunocompromised are especially at risk.<sup>3</sup>

World Health Organization (WHO) keeps an eye on the cases of swine flu globally to see its epidemiological aspects and how to stop the virus spreading. Infected people may infect others beginning a day before the symptoms develop up to seven or more days.<sup>4</sup> The fatality rate is estimated to be 26 per 100,000 cases, which is almost similar to that of seasonal flu and lower than in previous influenza pandemics.<sup>5</sup>

Most people with pandemic (H1N1) 2009 virus infection have had self-limiting uncomplicated illness.

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Supportive care can be provided as needed, such as antipyretics e.g. paracetamol and rehydration.

Currently, the diagnostic tests including Antigen detection ELISA and real time reverse transcriptase polymerase chain reaction (RT-PCR) can be done by specialized laboratories in many countries.<sup>6</sup>

Under no circumstances should influenza diagnostic testing delay initiation of infection control practice or antiviral treatment, if swine flu is suspected clinically and epidemiologically. Communicable Diseases Control (CDC) recommends the use of oseltamivir or zanamivir for the treatment and/or prevention and to prevent serious complications. Clean tissues to cover mouth and nose while coughing and sneezing followed by binning and hand washing with soap and hot water is the main advice: CATCH IT, BIN IT, KILL IT. One should keep at home and avoid crowds.<sup>7,8</sup>

Recently, the outbreak of swine flu in our neighbourhood i.e. India has claimed more than 1400 lives, with a study suggesting that the current strain of the parent H1N1 virus has mutated to become more virulent. This outbreak is believed to be worse than that of 2009, considering the high death toll and the scale with which the disease is spreading.<sup>9</sup>

A cohesive multispectral approach involving the government, NGOs and general public is needed for such a challenge to become a reality.<sup>7</sup>

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