

The Novel coronavirus outbreak: A challenge beyond borders

Editorial

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Coronaviruses infect mammals and birds worldwide, and some of these viruses infect humans to cause mild to moderate lower-respiratory tract illnesses and rarely a severe illness.^[1] Like other viruses, coronaviruses evolved (change their genetic material and protein structure) and spread from animals to humans.^[2] The world has witnessed coronavirus evolving into severe acute respiratory syndrome coronavirus (SARS-CoV) in 2003 and the Middle East respiratory syndrome coronavirus (MERS-CoV) in 2012. Other recent examples include Dengue, Ebola, Chikungunya, Influenza and Zika virus outbreaks.^[2] It may or may not be relevant to note that first cases of both SARS-CoV in 2003 avian influenza virus (H5N1) in 1997 were isolated and identified at the same hospital in Hong Kong where the first case of the current outbreak of the Wuhan coronavirus has been identified.^[3] The new virus has been named as the Novel coronavirus (2019 nCoV).^[4] The current outbreak of the coronavirus originated from the Huanan Seafood Wholesale Market located in Wuhan, Hubei province, China. A cluster of a viral respiratory illness was reported in people who worked at or were frequent visitors to this market.^[4] The timing of the onset of this outbreak is very critical, that the time when millions of people travel regionally within China and around the globe concerning the Lunar Chinese New Year. As of 25 January 2020, the current outbreak has caused 42 deaths, and about 1400 persons are infected across China, Thailand, Japan, South Korea, Taiwan, Vietnam, Singapore, Nepal, France, Australia, Malaysia and the USA.^[5,6]

Whenever a viral outbreak happens, lives are lost, and the world is placed at risk of pandemic spread. In the past, grave mistakes have been made in the local and international response to such outbreaks. Such as, Chinese authorities kept SARS-CoV identity hidden and covered up the situation initially in 2003^[7] that led to the devastating spread of the outbreak. Similarly, the response of WHO to the Ebola outbreak in 2014-2015 was glacially slow.^[8] It

appears that Chinese authorities have learnt a lesson from the SARS-CoV outbreak and therefore have cautiously released the identity and genome sequence of this new virus.^[9] Local health administration in Wuhan and WHO have issued detailed guidance on the clinical management of the disease as well as WHO has issued an international travel and trade advice in a timely fashion.^[10,11] The festival of Lunar Chinese New Year that was scheduled to start on 25 January 2020 has been subdued.^[12] Tens of millions of people surrounding the epicentre of the outbreak have been put under lockdown, and travel restrictions have been imposed affecting 56 million people only in China.^[13] Though millions of people may have travelled to and from the outbreak affected area to the rest of the world with the festival already, these steps would curb the spread of the virus through various ways of its transmission such as consumption of the large amounts of animal meat (suspected source of spread). Going forward, a continuum of the highest level of diligence and total transparency on accurate disease reporting and data sharing are indispensable enablers for the global healthcare fraternity's efforts to effectively manage the cases. However, the time to curtail the spread of this newly emerging deadly virus to other parts of the world may have already passed. The identity of the animal reservoir that transmitted the 2019-nCoV virus to humans and the results from animal testing at the aforementioned seafood market would be crucial to aid the control of this disease. Given how fast the spread is moving, human-to-human transmission should also be investigated urgently. In summary, emergence and re-emergence of viruses is a global issue – in today's globalized world, one person affected anywhere means everyone is at risk everywhere. Therefore, international efforts and collaboration are



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required to curtail this challenge. Urgent sharing of authentic scientific data, laboratory reagents, remedies and expertise, and setting up global collaborative networks to aid in outbreak control would make a difference in the current outbreak.

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