Letters to Editor

The 2019 novel corona virus outbreak - An institutional guideline

Emerging and re-emerging diseases are always a potential challenge to the healthcare system worldwide. The 2019-novel corona virus (2019-nCoV) is an RNA virus, which emerged in a seafood wholesale market in Wuhan, China at the end of 2019 and gradually spread to Thailand, Japan, South Korea, Singapore, Vietnam, Taiwan, Nepal, Italy, France, United States and other countries.[1,2] The first cases in India were reported in Kerala, and recently, cases have been reported in parts of India. This needs be viewed up as a serious health emergency.

Several thousand individuals are on surveillance in India due to reasons of fever, recent travel to China and concordant entries in the relevant surveillance questionnaires. The present strain of 2019-nCoV is the seventh member of the corona virus family that infects humans.[1] The previous serious CoV outbreaks were the 2002 Severe Acute Respiratory Syndrome (SARS) CoV and the 2012 Middle East Respiratory Syndrome (MERS) CoV.[1] A significant knowledge gap in the present outbreak is that the proportion of mild and asymptomatic cases to fatal cases, often described as surveillance pyramid, is unknown for the2019-nCoV; a situation, which is seriously hampering the assessment of the epidemicand complicating the response for the outbreak.

The 2019-nCoV spreads human to human through droplet and contact spread.[3] Although sensitive to disinfection measures, it can live in the environment for hours. We as health care personnel are always at a risk of aerosol associated infections. In addition, hospital populations with various co-morbid illnesses are more vulnerable to viral infections. Existing infection control recommendations are often a blanket statement to all types of infections.[4] A considerable number of individuals are under surveillance for 2019-nCoVin our geographical area. Elective surgery is always postponed in fever scenarios; however, anaesthesiologists can anytime confront a situation wherein a 2019-nCoV quarantined individual will be presented for an emergency surgery. This mandates a structured, focussed and outbreak specific anaesthesia personnel protection instructions to be followed.

We developed a structured set of instructions to be followed by the anaesthesiologist attending to the 2019-nCoV quarantine individual [Table 1]. The available recommendations after the 2002 SARS outbreak were appended to the requirements of the present outbreak.[5] The instructions were circulated among the anaesthesiologists of our hospital, on social media platforms like WhatsApp, and also a printed set of instructions were made available at the emergency operating room as a ready reckoner. Apart from this, health care personnel protection instructions periodically published by the World Health Organisation were also made readily available to all the anaesthesiologists. None of the 2019-nCoVquarantine individual has reported for an emergency surgery to our hospital till the time of writing this manuscript.

Table 1: Personal Protection Practice to be adhered by the anaesthesiologist while handling 2019-novel coronavirus (2019-nCoV) surveillance individuals in the Emergency Operation Theatre

Sl No	Practice adviced
1.	Inform the Head of Institution about arrival of a 2019-nCoV surveillance individual.
2.	Use personal protective equipment (PPE) with N95 face mask and eye protection
3.	Ensure hand hygiene with soap and water hand wash; and alcohol hand rub.
4.	All 2019-nCoV surveillance individuals to be operated only in the septic operating room (SOR) of the emergency theatre complex
5.	Surveillance individuals should be operated by a senior operating surgeon and anaesthesiologist; only assigned trainee resident doctors to enter the SOR.
6.	No mobile phones inside the SOR.
7.	Disposable ventilation tubing to be attached to anaesthesia machine with bacterial and viral filter, one each at patient end and machine end.
8.	Only Rapid Sequence Intubation in all surveillance individuals presenting for surgery to minimise infective aerosol generation.[5]
9.	Use video-laryngoscope for difficult airway
10.	Intra-operative point of care/lab blood samples to be transported only in labelled secondary containers.
11.	SOR door to be closed until completion of case; no movement of personnel inside the SOR permitted until completion of case
12.	On completion of case - PPE should be disposed with care in designated containers provided by hospital authorities; mandatory hand wash after removing PPE.
13.	Use sodium hypochlorite for surface disinfection, followed by sterilisation as appropriate for re-usable equipments.
14.	Mandatory fumigation of SOR after completion of case
15.	Handover a separate report (both telephonic and written) of effective isolation of 2019-nCoV surveillance individual in the SOR and adherence to PPE practice or any accidental breach in personal safety to the head of institution, immediately after shifting out from SOR.

The state of Kerala in India has acclaimed worldwide applause for its efforts in controlling the recent Nipah virus outbreak. We positively hope that our effort shall reinforce the outbreak response to the present 2019-nCoV in coalition with the efforts of public health authorities.

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Conflicts of interest

There are no conflicts of interest.

Varun Suresh

Department of Anaesthesiology, Government Medical College, Thiruvananthapuram, Kerala, India

Address for correspondence:
Dr. Varun Suresh,
Department of Anaesthesiology, Government Medical College, Thiruvananthapuram, Kerala, India.
E-mail: varunsureshpgi@gmail.com

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