

# Strengthening Critical Care System Response During Infectious Pandemics

Sek Ying CHAIR, PhD<sup>a</sup> 

The novel coronavirus (COVID-19), a newly identified coronavirus, has caused a global pandemic and placed considerable burden to critical care in each country. As of April 23, 2020, there were 2,549,632 confirmed COVID-19 cases globally (World Health Organization, 2020). Estimating a 5% intensive care unit (ICU) admission rate (Guan et al., 2020), the number of COVID-19 patients who need ICU care reaches 127,482. Together with the demands of non-COVID-19 patients, total demands for ICU increases significantly, resulting in huge burden to all local critical care system due to the overwhelming ICU admissions (Grasselli, Pesenti, & Cecconi, 2020). Additionally, caring those who are critically ill, imposes substantial stress to nurses due to the increased risk of being infected and complex care required by patients. To improve the ability of critical care system to respond to this pandemic, ICU capacity should be strengthened, and more resources should be allocated to ICU especially during this critical moment. Additionally, a collaborative effort should be made to establish an even stronger ICU network within or beyond regions to provide an immediate and quick response to meet the demands of patients for ICU care.

In this issue, four articles are included. One article introduced the history and recent advances of critical care nursing in Sri Lanka. Sri Lanka has achieved progress in developing critical care nursing, although difficulties are existing. The second article is a retrospective study evaluating the quality of care in a critical care unit in Cyprus. The results indicated high quality

critical care reflected by a low standardized mortality ratio. However, the author reported difficulties in data collection with such study design. The third article summarized the effects of endotracheal cuff pressure, cuff material, and cuff shape in preventing ventilator-associated pneumonia (VAP). Inconclusive evidence regarding the effectiveness of continuous endotracheal cuff pressure, polyurethane ultrathin tracheal tube and taper-shaped cuff in preventing VAP was reported. Primary studies with rigorous design are recommended to provide more solid evidence in this area. The last article is an integrative review evaluating the effects of self-management on improving health outcomes of patients with chronic kidney disease which is one of the major contributors to critical illness. Despite the limited number of studies included, this review provided preliminary evidence on the beneficial effects of self-management program in improving patients' psychosocial and behavioral outcomes. In this issue, *Connect's* first Annual Best Paper Competition message is announced. Please refer to the contents for detail.

## REFERENCES

- Grasselli, G., Pesenti, A., & Cecconi, M. (2020). Critical care utilization for the COVID-19 outbreak in Lombardy, Italy: Early experience and forecast during an emergency response. *JAMA*, 323(16), 1545-1546. <https://doi.org/10.1001/jama.2020.4031>
- Guan, W. J., Ni, Z. Y., Hu, Y., Liang, W. H., Ou, C. Q., He, J. X., ... & Zhong, N. S. China

<sup>a</sup>Chinese University of Hong Kong, Shatin, Hong Kong. E-mail: [sychair@cuhk.edu.hk](mailto:sychair@cuhk.edu.hk)

medical treatment expert group for Covid-19. (2020). Clinical characteristics of coronavirus disease 2019 in China. *The New England Journal of Medicine*, 382(18), 1708-1720. <https://doi.org/10.1056/NEJMoa2002032>

World Health Organization. (2020). *Coronavirus (COVID-19)*. Retrieved from <https://covid19.who.int/>