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Grab and Go COVID-19 Intubation Kit and Emergency Medication Kit

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The current COVID-19 pandemic is an unprecedented global crisis that renewed focus on public health and affected families, communities, and societies across the world [1]. While HCWs (health care workers) safety concerns grow, physicians are gaining exceptional experience in the management of critically ill patients. Undoubtedly, one of the most stressful and substantial points in patient care is airway management [2]. Intubation is one of the highest risk moment for COVID-19 spread to HCWs and other patients [3, 4]. Despite planning ahead for intubation, it is not uncommon to have a crashing patient who needs immediate airway support. It is frequently observed that in emergencies adhering to recommendations may not always be possible, especially when one has to concentrate on many tasks like gearing up with PPEs, minimizing infection spread, and preparing and planning of required equipment and drugs [5]. In emergency scenarios, time is the key. Ideally, neither the patient nor the HCWs should be exposed to higher risks, regardless of the location of the scenarios, especially dealing with non-critical care staff in remote areas. COVID-19 is a highly contagious disease and dealing with COVID emergen-cies is an extremely stressful situation for HCWs, so it is useful to provide pre-defined protocols, simulation drills as well as easily accessible, disposable, ready to use equipment [6, 7].

While preparing for COVID-19 surge, the Department of Anesthesia, Critical care and pain management, Al-Adan hospital in Kuwait, developed COVID-19 related local polices, protocol and guidelines. With our experience of managing suspected and confirmed COVID-19 patients, we had noticed that the intubation team has so many critical tasks to perform before airway management like gathering the team, getting ready with PPE, preparing patient's medications and equipment which is time-consuming especially when dealing in non-cri-tical care areas. To minimize the task for the intubation team and allow them adequate time for PPE donning, we came up with an idea of using a pre-prepared basic intubation kit (Fig. 1) and an



Fig. (1). COVID Emergency medication kit with the content list.

One each of the following medications: pre-filled Adrenaline syringe, Adrenaline ampoule, pre-filled Atropine syringe, Atropine ampoule, Ephedrine ampoule, Ketamine 500 mg, Propofol 200 mg, Rocuronium 50 mg. Other items with quantities: Prefilled Flush syringe (2), water for injections 10 ml (2), needles 18G (2), syringes 5 ml (4), syringes 10 ml (4), alcohol swabs (2), cannula 18 and 20 G (one each), Tegaderm (2), and extension line (1).



Fig. (2). COVID intubation kit with the content list.

Endotracheal tubes size 7.0/7.5/8.0/8.5 one each, Oropharyngeal airway sizes 4,5 one each, one tube tie, lubricant, one scalpel, one HME filter, disposable laryngoscope sizes 3 and 4 one each, one 10 ml syringe, and one bougie.

emergency medication kit (Fig. 2). These kits are compact and convenient to use. The contents are sealed in clear transparent pouches. A colored easily recognizable labeled sticker along with the contents list is attached to the bag. There is no need to

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contaminate all the airway or medication trolleys just grab and go. In this global crisis, we hope our suggestions will help others in optimizing safety practices in COVID airway emergencies.

CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

REFERENCES

- World Health Organization. Covid-19 Strategy Update 2020. Available at https://www.who.int/publications/i/item /covid-19strategy-update
- [2] Cook TM, Boghdadly KEI, McGuire B, McNarry AF, Patel A, Higgs A. Consensus guidelines for managing the airway in patients with covid-19 guidelines from the difficult airway society, the association

of anaesthetists the intensive care society, the faculty of intensive care medicine and the royal college of anaesthetists. Anaesthesia. 2020; 75: pp. (6)785-99.

- [3] Cheung JC, Ho LT, Cheng JV, Cham EY, Lam KN. Staff safety during emergency airway management for COVID-19 in Hong Kong. Lancet Respir Med 2020 Apr; 8(4): e19.
- [4] Dawei Wang MD, Bo Hu MD, Chang Hu MD, et al. Clinical characteristics of 138 hospitalized patients with 2019 novel coronavirus-infected pneumonia in wuhan, china Journal of the American Medical Association 2020; 323(11): 1061-9.
- [5] Edward Livingston MD, Angel Desai MD, MPH, Michael Berkwits MD, MSCE, *et al.* Sourcing personal protective equipment during the covid-19 pandemic. JAMA 2020.
- [6] Pan L, Wang L, Huang X. How to face the novel coronavirus infection during the 2019-2020 epidemic: the experience of Sichuan Provincial People"s Hospital. Intensive Care Med 2020; 46(4): 573-5. [http://dx.doi.org/10.1007/s00134-020-05964-0] [PMID: 32072300]
- [7] Jianbo Lai MSc, Simeng Ma, MSc, Ying Wang MSc, et al. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease. JAMA Netw Open 2020; 3(3): e203976.

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