COVID-19 RESUSCITATION

Poster No: 29

A Cross-sectional Study of Assessing Knowledge, Attitude, and Practice of COVID-19 Resuscitation among Healthcare Workers in the Emergency Department, University Malaya Medical Centre

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INTRODUCTION

- Resuscitation carries significant risks to healthcare workers (HCW) as it often involves aerosol-generating procedures (AGP).
- As of December 18, 2020, the statistics of cross-infection of COVID-19 among HCW in Malaysia were worrisome, with 1,771 cases reported.
- Previous resuscitation guidelines did not emphasize the provision of care in biohazard scenarios such as COVID-19. To bridge the paucity of recommendations, the European Resuscitation Council (ERC) had issued novel resuscitation guidelines to assist trained rescuers to perform CPR without compromising their safety.
- We aim to evaluate the level of knowledge, attitude and practice (KAP) among emergency HCW regarding COVID-19 resuscitation protocol by the ERC.

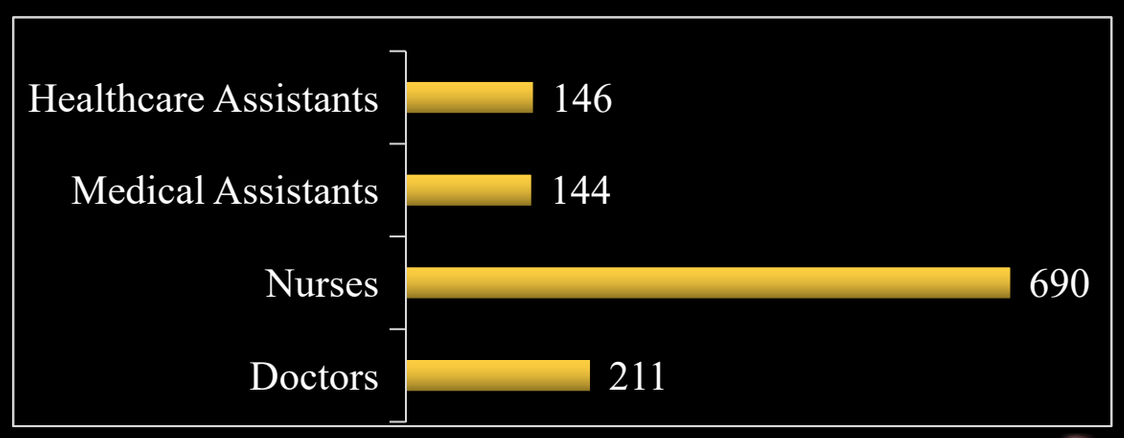

Figure 1: Local COVID-19 outbreak cases in healthcare settings

MATERIALS & METHODS

- We conducted a cross-sectional questionnaire-based study among HCW in University Malaya Medical Centre's Emergency Department.

Phase 1: Development & Validity of Questionnaire

Literature review

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Interview population of interest

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Item generation

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Content & face validity
Content validity index = 0.80
Cronbach's alpha (α) coefficient = 0.76

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Pilot test

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Test & re-test reliability
Intraclass correlation coefficient = 0.74

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Finalised questionnaire consisted of 36 items

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Phase 2: Conduct KAP cross-sectional study

- Inclusion criteria : Consented emergency physicians, medical officers, nurses, and assistant medical officers.
- Exclusion criteria : House officers, healthcare assistants, ambulance drivers, pharmacists, and admistrative workers.
- Sample size: 155 (Kjercie & Morgan, 1970)
- Sampling method : Convenience sampling

RESULTS

159 HCW enrolled in the study

- Out of the 260 emergency HCW eligible for the study, 159 HCW were included with 11% (n=20) dropout rate.
- Most of the respondents had attended Basic Life Support (BLS) 99.4% (n=158), Advanced Cardiac Life Support (ACLS) 64.8% (n=103), and COVID-19 training 89.3% (n=142).

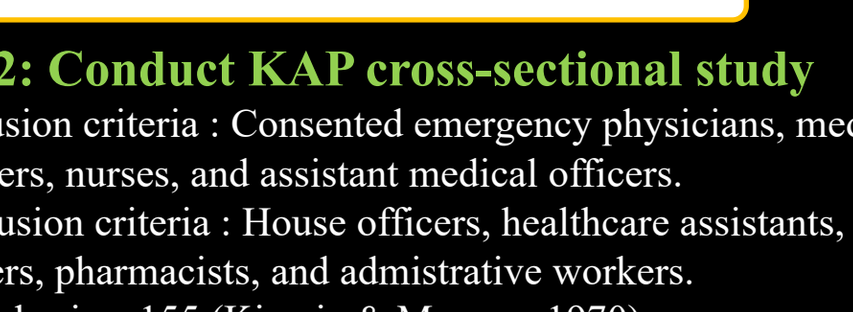

Figure 2: Pie chart demonstrates percentages of respondents according to designation

68% of respondents had adequate knowledge

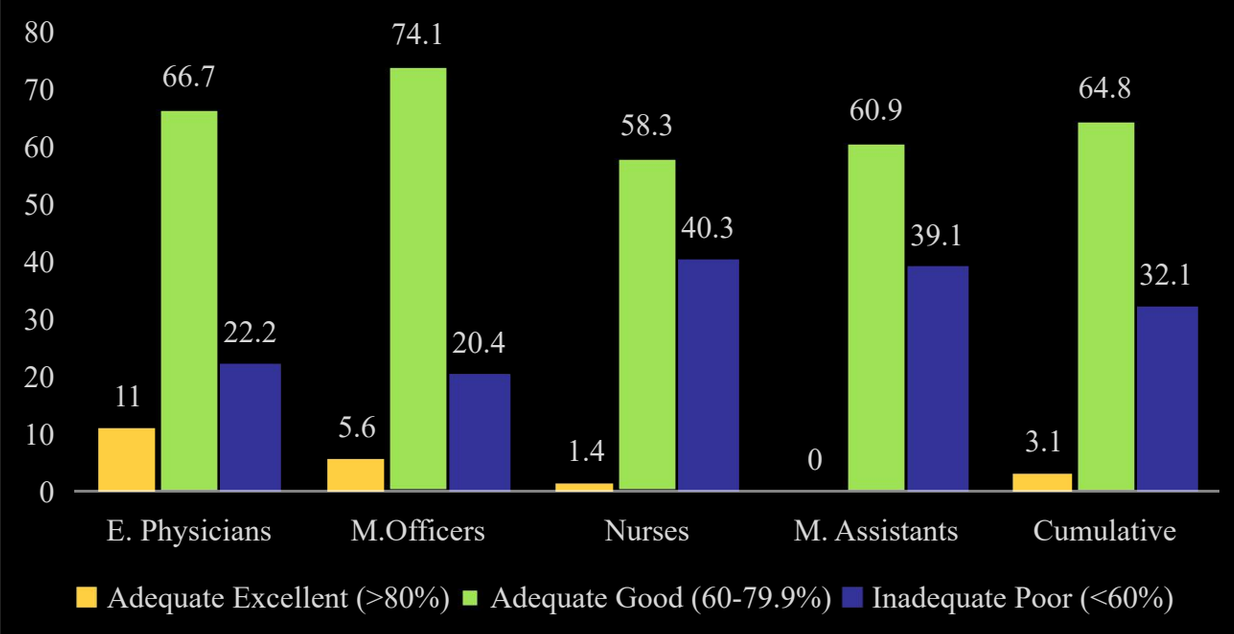

Figure 3: Levels of knowledge of the respondents

HCW were pessimistic about COVID-19 prognosis, but willing to perform CPR on COVID-19 patients.

- 73% (n = 117) of the respondents felt the prognosis of COVID-19 cardiac arrest was poor.
- Majority of the respondents were willing to perform CPR and 94% (n = 150) were confident of their safety if airborne-precaution PPE was used.

HCW had insufficient level of practice

- There was inadequate practice for COVID-19 resuscitation, with only 27% (n = 43) having good practice with a mean score of 53.7 (SD = 14.7).

DISCUSSION/CONCLUSION

- Majority of respondents were pessimistic about the prognosis of COVID-19 cardiac arrest patients.
- The number of out-of-hospital cardiac arrests (OHCA) soared with 14.5% of Malaysia's total COVID-19 fatalities were attributed to brought-in-dead cases as of May 29 2021.
- This leap in fatalities had tremendously affected the respondents' attitude towards COVID-19 prognosis.
- There was a lack of practice in the resuscitation of the intubated and patients who were being proned in ED.
- There was insufficient practice about defibrillation, use of supraglottic devices, and intubation barriers in COVID-19 patients

Our respondents had little to no experience with resuscitation of prone patients. This is due to the expedited admission to the ICU after initial resuscitation. Chest compressions can be performed in prone position by compressing between the scapula at the usual depth and rate.

The use of aerosol boxes is no longer recommended at this time. A simulation study demonstrated the degree of contamination with the use of an aerosol box can be offset with proper donning and doffing technique of PPE

- In conclusion, emergency HCW are equipped with knowledge to adhere to resuscitation protocols and harbor positive attitudes towards resuscitating COVID-19 patients. However, they lack the practice of resuscitating COVID-19 patients and generally, were pessimistic about the prognosis of COVID-19 cardiac arrest.

DISCLOSURES

Acknowledgement

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Declaration of conflict for all authors

None declared.

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