

Background

Respiratory therapists (RTs) are one of the frontline healthcare workers fighting the coronavirus disease 2019 (COVID-19) in the clinical areas, such as intensive care units, and emergency rooms. There are no data to measure the current practice of RTs in Saudi Arabia toward COVID-19 patient management in term of respiratory management.

This study aimed to measure the current practice of RTs in Saudi Arabia to manage COVID-19 patients in different aspects.

Methods

A cross-sectional, self-administered online survey comprising 29 questions. The survey comprised two sections: A demographic focusing on participants' data and a section to measure the knowledge of practitioners about the proper management of patients with COVID-19. Five expert in the field validated the survey content and format.

None of the RTs who completed the survey were excluded

Results

A total of 247 RTs from different regions of Saudi Arabia were included. Men RTs were (65.6%), and the mean age was 30.52 ± 2.1 years. The majority of the RTs answered the questionnaire questions correctly.

Answering the questions correctly was associated with more years of experience and working in the central and eastern regions. More than 50% of the RTs answered three questions inaccurately; those questions pertained to the suitable tidal volume, the acceptable SpO₂ for critically ill patients, and the recommended trial period for noninvasive ventilation. **Table 1.** and **Picture 1.**

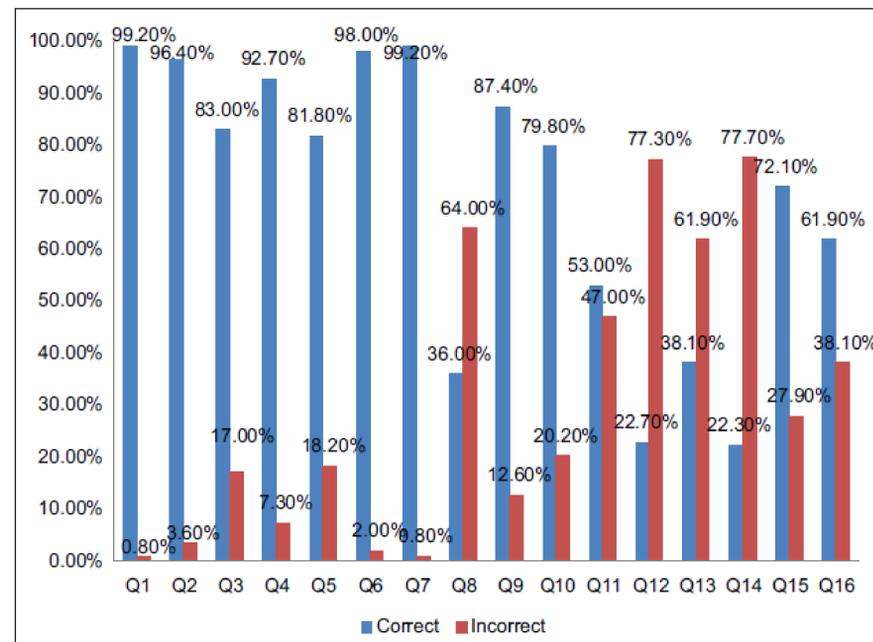


Table 1. The percentages of correct and incorrect answers among the survey questions

| | | |
|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------------|
| 11. What is the recommended time (h) per day for the prone position in patients with COVID-19 with moderate-to-severe ARDS? | 8-10 | 78 (31.6) |
| | 12-16 | 131 (53.0) |
| | 16-18 | 38 (15.4) |
| 12. What is the acceptable SpO ₂ that should be maintained in critically ill patients with COVID-19? | 90%-92% | 169 (68.4) |
| | 92%-96% | 56 (22.7) |
| | 94%-100% | 15 (6.1) |
| | I don't know | 7 (2.8) |
| 13. If therapy is maximized till prone position with COVID-19, and the patient remains hypoxemic, what is the next recommended intervention? | APRV | 93 (37.7) |
| | HFOV | 24 (9.7) |
| | Inhaled pulmonary vasodilator | 36 (14.6) |
| | VV-ECMO | 94 (38.1) |

Picture 1. The three questions that answered inaccurately

Conclusion

Our cross-sectional study showed that RTs working in Saudi Arabia conformed to the current guidelines and recommendations for dealing with patients with COVID-19. The accurate knowledge in dealing with these patients was increased with years of experience. Future studies are required that recruit additional RTs from different countries and educational backgrounds.

Translational Potential

The results indicated that more awareness about COVID-19 management is mandated, so many courses have been done to elevate the knowledge level of all RTs among the Kingdom.

Acknowledgment

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