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Letter to the Editor

Promoting Saudi National Audit of Oxygen Use: Years of Uncertainty

TO THE EDITOR,

I read with interest the paper by Hajed Al-Otaibi describing current practices of prescription and administration of oxygen therapy at a single teaching hospital in KSA[1].

The author of this study explored the oxygen practices in general wards through a thoughtful survey about point prevalence that aptly revealed interesting points that would facilitate changes in the current practice of prescribing and delivering oxygen therapy.

I reckon the clinical implications of this study are significant and as such, I also want to highlight some points after considering the study limitations reported by the author.

I noticed that paediatric wards were included in addition to the other wards. This needs to be clarified as oxygen use in paediatrics is one of the areas not covered by the BTS guidelines.[2]

Furthermore, patients on non-invasive ventilation (NIV) were excluded and this was not justified as many patients in such wards normally use NIV, for example, patients with chronic obstructive pulmonary disease (COPD). Supplemental oxygen with NIV is frequently administered and usually affected by the interaction of flow, leakage, and interfaces used. Therefore, management of such modalities needs to be addressed by offering specific education and training to improve the performance of the practitioners.[3] Likewise, the inclusion or exclusion of the use of continuous positive airway pressure (CPAP) and high-flow nasal cannula (HFNC) were not clarified since some evidence classifies those modalities under NIV[4] and such ventilation approaches were covered under the BTS guidelines.[2] If patients who used those modalities were excluded, the prevalence of this study is underestimated.

For those with written targeted oxygen saturations prescribed, it was interesting to know what target ranges were prescribed and how far outside the ranges the patients were, in addition to their admission diagnosis.

Indeed, the study findings were one of the first studies in the KSA to highlight an urgent need for optimal organizational and economic models to identify those at risk of oxygen misuse. However, having a national clinical audit will be undeniably helpful in providing valid and reliable performance benchmarks. This form of audit should be an essential part of standard clinical practice in the KSA.

In its current format, this paper leaves us with two important unanswered questions. 1) Will the health care providers who identified with the risk of improper oxygen prescription and administration be able to meet the guidelines in the future if their working conditions have been improved? 2) How would the author account for variations in the educational and clinical backgrounds of the health care providers that could affect patient safety? If those providers changed their self-perception during a six month follow-up period, could this have a greater impact on their current oxygen practices?

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Conflict of interest

The author have no conflict of interest to declare.

Ethical approval

None.

References

1. Al-Otaibi HM. Current practice of prescription and administration of oxygen therapy: an observational study at a single

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teaching hospital. **J Taibah Univ Med Sci 2019 Aug**; 14(4): 357–362.
2. O'Driscoll BR, Howard LS, Earis J, on behalf of the BTS Emergency Oxygen Guideline Development Group, et al. British Thoracic Society Guideline for oxygen use in adults in healthcare and emergency settings. **BMJ Open Respir Res 2017**; 4e000170. https://doi.org/10.1136/bmjresp-2016-000170.
3. Karim HM, Burns KE, Ciobanu LD, El-Khatib M, Nicolini A, Vargas N, Hernández-Gilsoul T, Skoczyński S, Falcone VA, Arnal JM, Bach J. Noninvasive ventilation: education and training. A narrative analysis and an international consensus document. **Adv Respir Med 2019**; 87(1): 36–45.
4. Scala R, Pisani L. Noninvasive ventilation in acute respiratory failure: which recipe for success? **Eur Respir Rev 2018 Sep 30**; 27(149). 180029.

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