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| **Oxygen therapy implementation guidance in Australian hospitals: a systematic review** |
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| **Introduction/Aim:** Conventional oxygen therapy (COT) is used routinely to manage acute hypoxaemic respiratory failure We aimed to review COT implementation guidance documents in Australian hospitals, to identify current practice, any variations and to generate standardised core implementation recommendations.  **Methods:** A systematic review of Australian hospital’sCOT implementation guidelines, protocols, procedures and policies for adult inpatients were identified via the PROMPT database and other networks. Data extracted included COT initiation, maintenance, weaning, and escalation, and processes of care.  **Results:** Of 17,331 documents identified, 37 were included, with 36 Victorian hospitals (97.3%), 21 (56.7%) rural, 9 (24.3%) regional, and 7 (18.9%) metropolitan. Most focused on medical wards (n=36, 97.3%). TSANZ acute oxygen guidelines were referenced infrequently (n=11, 29.7%).  Pulse oximetry (n=23, 62.2%) was recommended more often than arterial blood gas (ABG) measurement (n=13, 35.1%) for assessing hypoxaemia. None required an ABG prior to COT initiation (n=37, 100%). 3 (8.1%) documents recommended ABG be performed to monitor COT use. Oxygen saturation (SpO2) targets for COT initiation and maintenance were common (n=29, 78.4%), however, 6 (16.2%) did not specify a SpO2 value to define hypoxaemia.  Medical staff were most often identified as prescribing COT (n=21, 56.7%), followed by nurses (n=14, 37.8%) and physiotherapists (n=4, 10.8%). Guidance on monitoring and up titration occurred frequently (n=29, 78.3%), however, 15 (40.5%) documents did not specify criteria for clinical review and weaning guidance was rarely included (n=9, 24.3%). A system to detect patient deterioration was often stated (n=19, 51.3%), commonly MET criteria (n=17, 45.9%). Guidance regarding COT delivery systems was high variable.  **Conclusion:** There was substantial variation in Australian health services’ COT implementation guidance and recommended processes of care. Development and implementation of standardised core recommendations may assist clinical decision making, reduce variations of care and improved patient safety and outcomes.  **Key words:** oxygen therapy, guidance, adults, acute care, hospital  **Grant support:** Australian Government research training scholarship  **Conflict of interest:** Nil |