Consensus airway management guidelines – key insights from a lead author

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Airway management morbidity has been reported over many years in closed legal claim and other studies. All point to recurrent, yet preventable management issues. Airway guidelines have evolved from the need to address these issues. These have been published and updated by several countries and airway societies, with an overarching goal to advance a structured approach to difficulty encountered in the unconscious patient. More recently, guidelines have expanded to include safe planning and implementation of airway management when difficulty is anticipated.

Canadian airway guidelines have been published on three occasions: in 1998, 2013 and 2021. For the latter two updates, recommendations were split into two articles: one addressing difficulty occurring in the induced patient (1) and one addressing anticipated difficulty (2). Updated US ASA difficult airway guidelines were published in 2022 (3).

Most airway guidelines provide advice for (a) difficult or failed tracheal intubation when fallback use of face mask ventilation (FMV) or supraglottic airway (SGA) ventilation is non-problematic and (b) failed laryngoscopy/intubation coinciding with difficult or failed fallback ventilation ("can't intubate, can't oxygenate", CICO). In the former instance, advice centers around progression from one type of device to another and limiting total attempts (e.g., to a maximum or three). After the three attempts, the clinician should pause to consider an exit strategy: options include allowing the patient to awaken (generally only an option in the context of elective surgery); placing an SGA to temporize; proceeding with another intubation attempt if equipment and a skilled individual can be sourced to address the preceding difficulty, or, in rare instances, proceeding with surgical airway.

Advice for the CICO situation includes recognizing its definition - to allow for the better and earlier identification of when it has occurred - and its implied default action (rapid emergency front of neck airway [eFONA]). Once recognized, rapid eFONA should occur. We recommend a scalpel-tube bougie technique for eFONA in the adult population.

The 2013 and 2021 Canadian guidelines and 2022 US ASA guidelines provide advice on how to approach the patient with anticipated difficulty with airway management. When airway evaluation suggests anatomic predictors of significant difficulty with tracheal intubation, the provider is advised to consider a series of questions to help decide whether the patient would most safely be managed by awake tracheal intubation, or whether, despite the predicted technical difficulty, it is reasonable to expect the safe management of the patient after the induction of general anaesthesia. The questions to consider include: (a) the degree of expected difficulty, (b) whether fallback ventilation using FMV and/or an SGA is also predicted to be difficult, (c) whether there are coexisting physiological issues that

might compound risk to the patient were airway management to proceed after induction, or (d) whether there are other contextual issues that might impact a decision of how to proceed. Examples of contextual issues include no access to additional expertise or, to a device needed to manage the anticipated difficulty (e.g., a video laryngoscope). If any of the foregoing questions is answered in the positive (i.e., significant technical difficulty is predicted; fallback ventilation is also predicted to be difficult; there's a significant coexisting physiologic and/or contextual issue), the clinician is advised to consider awake tracheal intubation as a potentially safer option to secure the airway. If the answer to all questions is "no", then post-induction airway management might be safe to consider. Regardless of the chosen approach, when difficulty is predicted, extra attention should be devoted to the details of its implementation.

Without doubt, advice appearing in the many published airway guidelines is quite similar. At best, this represents a duplication of effort, and at worst, might introduce controversy on which guidelines to adopt. The Project for Universal Management of Airways (PUMA) is comprised of a group of airway-interested clinicians, who have the common goal of arriving at universal airway guidelines, applicable to all practice environments (4). They are due to report their results in a series of articles in 2023 and 2024.

1. Law JA, Duggan LV, Asselin M, Baker P, Crosby E, Downey A, et al. Canadian Airway Focus Group updated consensus-based recommendations for management of the difficult airway: part 1. Difficult airway management encountered in an unconscious patient. Can J Anaesth. 2021;68(9):1373-404.
2. Law JA, Duggan LV, Asselin M, Baker P, Crosby E, Downey A, et al. Canadian Airway Focus Group updated consensus-based recommendations for management of the difficult airway: part 2. Planning and implementing safe management of the patient with an anticipated difficult airway. Can J Anaesth. 2021;68(9):1405-36.
3. Apfelbaum JL, Hagberg CA, Connis RT, Abdelmalak BB, Agarkar M, Dutton RP, et al. 2022 American Society of Anesthesiologists Practice Guidelines for Management of the Difficult Airway. Anesthesiology. 2022;136(1):31-81.
4. Chrimes N, Higgs A, Law JA, Baker PA, Cooper RM, Greif R, et al. Project for Universal Management of Airways - part 1: concept and methods. Anaesthesia. 2020;75(12):1671-82.