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Airway management guidelines: A safe passage to India

The dual responsibility of maintaining a patent airway and securing a definite airway rests squarely on the shoulders of the anaesthesiologist. This is true not only in the operation theatre (OT) but also in the emergency room (ER) and Intensive Care Unit (ICU). Since elective endotracheal intubation for anaesthesia was first used by Sir William Macewen in 1880, it has been the mainstay of airway management in the majority of situations. While it is true that specific anaesthetic requirements for performing cardiac, neurological, paediatric, bariatric, obstetric or any other branch of surgery are important, the one factor that is common to all specialties is the need to provide a secure airway. Anaesthesiologists have always acknowledged the importance of airway management, starting with the preoperative airway examination. New technology has often powered the advances in various fields of medicine; anaesthesiology is no exception. The last two decades have also witnessed a sea change in the availability of airway equipment and techniques. This embarrassment of riches brings yet another issue into sharp focus. Is the present day anaesthesiologist competent in the appropriate use of such a wide variety of airway equipment? In a country as vast as India, have such technological advances reached the anaesthesia community in its entirety or have they reached only a few select centres of excellence? These questions have made it increasingly clear that we need to focus on teaching and training in a wide spectrum of airway management techniques.

To satisfy such a long felt need, a group of anaesthesiologists with special interest in airway management launched the All India Difficult Airway Association (AIDAA) in the year 2010. Although just 6 years old, the association currently enjoys a membership of over 500. AIDAA has made giant strides over the past 6 years in educating anaesthesiologists

all over the country in airway management techniques through comprehensive regional and national level conferences and practical hands-on workshops.

The members of AIDAA have also realised that the need of the hour is to create airway management guidelines that would help Indian anaesthesiologists and medical specialists working in OTs, ERs and ICUs to deal with unanticipated problems during airway management. Airway management guidelines have been published by our anaesthesiology colleagues from Australia-New Zealand, Canada, France, Germany, Italy, United Kingdom and United States of America.^[1-11] Although these are truly exemplary, they take into account the scope of practice only in the respective countries. It would be naïve to transplant such recommendations verbatim into the Indian context and expect them to work equally well. Conditions of medical practice are not only different in our country but are also variable depending on the type of institution/centre that one works in. The prohibitive cost of medical equipment (airway equipment included) adds yet another dimension to the problem wherein the practitioner needs to prioritise areas where the money is spent.

Taking all these facts into consideration, AIDAA set its goal of creating five algorithms to specifically address problems encountered during airway management. Of these, the first three include unanticipated difficult intubation encountered in the adult, obstetric and paediatric populations. The fourth algorithm provides a logical framework to deal with problems encountered during extubation. The fifth and final algorithm (which we believe is the first one in world literature addressing this subset of patients) details airway management issues encountered in ICUs. These algorithms were discussed and deliberated upon

by 14 core group members. A preliminary draft was presented in September 2016 at a national conference attended by over 600 anaesthesiologists with special interest in airway management. Inputs received at this meeting, as well as those obtained through an electronic questionnaire, were incorporated into the final algorithms published in this issue. While we acknowledge that the algorithms are not all encompassing, we believe that they will provide a framework of decision options regarding airway management to the anaesthesiologist irrespective of their level of experience.

How different are these guidelines from the international guidelines that are currently available? All algorithms allow the anaesthesiologist to choose from one of several devices and options depending on the situation and resources available. However, the science of airway management and the pursuit of safe practices remains our core belief. The AIDAA algorithms stress the importance of oxygenation, both in using an SpO₂ (pulse oximetric oxygen saturation) threshold of $\geq 95\%$ to restrict the number of attempts at intubation or insertion of a supraglottic airway device, and in recommending that nasal oxygen be given continuously at a flow rate of at least 15 L/min (in adults) throughout the period of apnoea. These two interventions increase the safety of intubation, are simple and inexpensive, can be performed in any location and are ideally suited for countries like India. AIDAA also recommends confirmation of tracheal tube position by capnography. We acknowledge that capnography is not available in several OTs and ICUs in India. However, the science behind capnography and the safety offered by its use are far too compelling to be ignored. Capnography is being used more often at present than it was some years ago. Indian hospitals, nursing homes and practitioners must raise their standards over a period of time, rather than dilute a standard that has an overwhelming proven track record of safety.

The All India Difficult Airway Association is happy to simultaneously release five airway management guidelines in this issue. We wish to reiterate that while these guidelines spell out logical management options that cover the majority of clinical situations that we might encounter in our scope of practice, they do not mandate standards of care. However, as patient safety

is our priority, adherence to these guidelines would certainly increase our chances of achieving this goal.

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