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# Editorial

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No aspect of the practice of pediatric anesthesia is more essential than airway management. Pediatric anesthesiologists are the *\_go to\_* specialists when infants and children with difficult airways present anywhere in the hospital. To our advantage, rapid technical advances have taken place during the past decades and the number of tools available to assist us in providing and maintaining a secure and stable airway has increased significantly. Until the 1970s tracheal intubation with a conventional laryngoscope or blind nasal intubation were the mainstays of establishing an artificial airway. The choice of endotracheal tubes was limited. During the past 20 years a remarkable assortment of equipment and novel techniques to facilitate optimal airway management have been developed. These include supraglottic airways, direct and fiberoptic laryngoscopes and transtracheal devices. Improved imaging of the airway prior to initiation of airway management, with CT and MRI, for example, and during airway manipulation and instrumentation, using fiberoptic cameras and portable video displays, is now widely used. While new developments in airway management have helped us improve the quality of care of our patients, new challenges have also arisen. Which techniques should we learn, teach and employ? Which endotracheal tubes should be utilized – uncuffed or cuffed, old or new design? Which of our patients need preoperative imaging of the airway and/or sleep studies? What are the risks of newer interventions, including novel airway devices and laser instruments?

In this supplement dedicated to the pediatric airway we hope to present practical information and perspectives that will assist the reader in their daily practice. Management of the pediatric airway begins with an understanding of developmental anatomy. The important differences between adults and children are clearly set out by Adewale (1). Assessment of the pediatric airway is largely clinical for most cases (1) but modern imaging can give stunningly clear information as illustrated in the second article by Eslamy and Newman (2). Anatomy also affects equipment design, both for visualizing the airway (3,4) and also for securing the airway (5). A myriad of airway devices are now available for elective (6) and emergency use (7) and these are critically reviewed in this issue. The use of cuffed tracheal tubes in pediatric anesthesia is now much more common and the advantages and disadvantages are debated (8). When assessment reveals a difficult pediatric airway (1), it is important to have a clear management plan and an approach is clearly explained by Walker (9). For most practitioners such cases will be relatively rare but all will encounter children with upper airway obstruction (10),

obstructive sleep apnea (11), airway foreign body (12) and airway infections (13) so the reviews of these topics are particularly helpful. When managing the pediatric airway, we do need to be cognizant of *\_doing no harm\_* and this is well illustrated by the review of iatrogenic damage by Holzki (14). The management of inhalation burn injuries is described by Fidkowski et al. (15). Laser therapy for airway lesions is now routine in many children's hospital airway services and the physics of lasers, safety aspects and anesthesia techniques are clearly described by Best (16).

After airway surgery, good postoperative care is vital to ensure a quality outcome and aspects of postoperative management are reviewed in detail by Hammer (17). This supplement concludes fittingly with a personal view from a lifetime of experience by Josef Holzki (18). He freely admits that he has spent a lot of time looking down telescopes and that can give a narrow view of the world! However, in this article there is a great deal to provoke thought and discussion.

We hope that all our readers will find something of interest and use for their clinical practice in this special supplement and we are delighted that all our authors have produced world-class illustrated articles on such an important topic for all pediatric anesthesiologists.

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iv EDITORIAL

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