

## Editorial

# Advanced Airway Management Training- An Emerging Trend

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In the past 25 years, the subspecialty of airway management within anesthesiology has been revolutionized by the introduction of the supraglottic airway device and videolaryngoscopy. The contributions of Drs. Archie Brain and Jack Pacey have been documented in the ASA Difficult Algorithm, and have changed the management of the anticipated and unanticipated difficult airway [1].

A plethora of supraglottic devices and videolaryngoscopes have been based on the original contributions of Drs. Brain and Pacey respectively. Despite these advancements in airway management, one cannot just pick up these airway devices and expect that one can perform expertly without training and expertise. In my large urban institution, I am finding that as these devices become main stream in services outside the anesthesiology department, “near misses” and critical situations in difficult airway management are becoming more commonplace. According to a recent large scale study based in the United Kingdom, a disproportionate number of airway events occur in the emergency department and the intensive care units (30 fold and 60 fold more than the operating room) [2].

Supraglottic devices and videolaryngoscopy do not negate the need for daily familiarity and mastery in airway management. As such, let us acknowledge an emerging trend – Advanced Airway Management Fellowships. The need for formalized training post anesthesiology residency in airway management has been recognized.

Airway fellowships have been available in Canada under the supervision of Richard Cooper, and more recently have come to the United States [3]. Stanford School of Medicine in California under Vladimir Nekhendsky and Montefiore Medical Center in New York under Tracey Straker, both offer Advanced Airway Fellowships [4,5] David Healy of University of Michigan, President of the Society of Head Anesthesia (SHANA) is formulating a combined ENT/ Airway Fellowship slated for the academic year 2014.

It has always been thought that airway management is intrinsic in the field of anesthesiology. Undoubtedly, no other subspecialty has had more exposure to airway management than anesthesiology.

Nonetheless, with the advent of new airway devices, advanced plastic surgery and otorhinolaryngology procedures, and new sedative drugs, a closer look at a concentration in airway management is warranted. It is documented that the anesthesiology residents are graduating with the majority of their airway management experience in direct laryngoscopy and supraglottic device placement [6]. Multiple airway devices are available that supplement direct laryngoscopy, and enhance patient safety in difficult airway management. Our anesthesiology residents are not being given adequate exposure to the multiple families of airway adjuncts available.

The Society for the Advancement of Airway Management (SAM), in existence since 1995, states as one of its missions – “to advance the study of airway management, to contribute to the advancement of new airway techniques, encourage research, education, teaching, and scientific advancement of airway management [7]. The Society for Head and Neck Anesthesia (SHANA), in existence since 2011, states as its educational mission - “comprehensive education aimed at improving knowledge, competence, and performance of anesthesia trainees, and specialized and advanced training in the field of head and neck anesthesia [8].

SAM and SHANA, both North American based organizations, advocate advanced training in airway management. Just as the vision of the Accreditation Council for Graduate Medical Education (ACGME) is for residents and fellows to achieve specialty specific proficiency prior to graduation, the goals of SAM and SHANA are illuminating the pathway to proficiency in advanced airway management through advanced airway rotations and fellowships.

When one thinks of an airway management fellowship, you might initially think, “Isn’t that what all anesthesiologists do?” “Why do we need an extra year added on to training for airway management? “Isn’t this a waste of time? The answer is emphatically no. The surgeries, equipment and medicines employed in airway management have transformed airway management into a subspecialty.

In most “traditional” ACGME fellowships, there are at least 2 months of rotations dedicated to the subspecialties. This is not the case with airway management. It is presumed that you will acquire all the skill sets needed for advanced airway management” along the way” to graduation. This is emphatically not the case. Forty nine percent of the training programs in North America have a formalized airway rotation [9]. This is a marked increase from 33 % reported by Hagberg et al in 2003 [10]. Compared to 100 % percent of the accredited training programs that offer the traditional ACGME rotations, the results are disheartening.

The facts are as follows and increasingly anesthesiology programs are acknowledging the need:

1. Less than half of anesthesiology residency programs in North America have a formalized advanced airway rotation

2. Progress in surgical techniques, advanced airway equipment and medications dictate that advanced airway management training should be accessible to anesthesiology trainees
3. Multiple societies exist nationally and internationally whose goal it is to advance the airway management teaching and research
4. Advanced airway rotations are increasing in North American anesthesiology programs

Let us acknowledge what is an emerging trend- advanced airway management fellowships are here, and continuing to gain momentum. In this progressive millennium of the 21<sup>st</sup> century, make room next to the cardiac, pediatric and neuroanesthesia rotations for airway management .Acknowledge advanced airway management as a subspecialty and move to incorporate this subspecialty into your curriculums.

In order to maintain the quality of care and safety of our patients in an environment of surgical and technological advancement, it is imperative that we give anesthesiology trainees accessibility to advance airway management training for adequate duration.

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