OBJECTIVES
• Evaluate the anatomic fidelity of pediatric and adult manikins and task trainers that could be used in aero-digestive procedure training
• Develop assessment criteria for future anatomic fidelity studies conducted among otolaryngologists and other airway specialists

METHODS
Experienced otolaryngologists assessed the aero-digestive anatomic fidelity of 10 manikins and task trainers in a passive state (e.g. no electronic augmentation), using rigid and flexible endoscopy and a 5 point rating scale (5=best). Ratings of the nasal cavity, nasopharynx, oral cavity, oropharynx, larynx (subdivided into arytenoids, glottis, and subglottis), trachea, esophagus, and neck are displayed in a pair of “spidergrams”.

RESULTS
Twenty-three faculty otolaryngologists evaluated the anatomic realism of the aero-digestive tracts of 5 adult and 5 pediatric manikins and task trainers. Mean scores and standard deviations were tabulated for each manikin at each anatomic site. Differences in scores allow comparison of manikin anatomic fidelity by site and by manikin. Anatomic sites for manikins which received at least 10 evaluations for all sites are reported.

CONCLUSIONS
Ratings by survey participants demonstrated variation in the anatomic fidelity of a range of commercially available manikins. Spidergram display of the results may allow instructors to select manikins with the best anatomic fidelity for their specific educational purposes, and may contribute to recommendations for improving manikin fidelity.