Christopher J. Chin MD, Kathryn Roth MD FRCSC, Brian W Rotenberg MD MPH FRCSC, Kevin Fung MD FACS FRCSC

1. Department of Otolaryngology – Head and Neck Surgery, Schulich School of Medicine and Dentistry, Western University, Canada

Abstract

Objectives
A one-day intensive course (Bootcamp) was developed, to teach junior Otolaryngology – Head and Neck surgery (OtoHNS) residents emergency procedural skills, clinical reasoning, teamwork and communication skills. This learning paradigm utilized a number of novel task trainers, interactive panel discussions and emergency simulations. The study objective was to assess the educational value of this Bootcamp.

Study Design
Prospective cohort survey.

Methods
Residents were recruited from regional teaching centers within a 2000km radius of the simulation center. Preceptors fluent in English and in French were in attendance. Pre-Bootcamp outcome measures included the Kolb Learning Style inventory and a self-administered survey measuring confidence levels in performing specific OtoHNS tasks. Post-Bootcamp outcome measures included a survey evaluating the Bootcamp experience and a structured follow-up 1-month post Bootcamp telephone interview.

Results
Twenty-eight residents participated in the Bootcamp from across the United States and Canada. When asked if they felt that “Overall, the educational day was an effective learning process” the average score was 4.75/5.0. The vast majority of participants (92.9%) felt they would recommend the Bootcamp to a future junior resident. Kolb learning styles that prefer Active Experimentation (Acting, Initiating, and Deciding) were more common than those that utilize Reflective Observation (Imagining, Analyzing, Reflecting) which favors a hands-on model of learning.

Conclusion
This first Canadian OtoHNS Bootcamp demonstrated the feasibility and effectiveness of conducting a centralized Bootcamp for regional training centers spanning multiple states/provinces and languages. Future Bootcamps will be held annually and will ideally continue the natural evolution of surgical, hands-on training.

Surgical emergencies can occur suddenly and without warning
Ideally, surgical residents could learn how to deal with these situations in a controlled, simulated environment
A Canada-wide “Bootcamp” was developed and run
The goal of this study was to determine the feasibility and efficacy of the Bootcamp

Methods
• The Bootcamp took place on September 29th, 2012 at Western University in London, Canada
• Junior Otolaryngology residents were recruited from 3 Canadian provinces and 2 American states
• All residents filled out a pre- and post-Bootcamp survey, as well as the Kolb Learning Inventory (LSI)
• The Bootcamp included: 2 simulations, 7 task trainers, and an interactive discussion with a panel of faculty
• Task trainers included: epistaxis (Fig 1 & 2), lateral canthotomy, cricothyroidotomy, bronchoscopy (Fig 3) and more

Results
• 28 Residents and 10 Faculty attended
• 92.9% of residents said they would recommend the Bootcamp to a future junior resident (7.1% did not respond)

Conclusion
• We used simulation technology (such as the SimMan™, and accurate anatomic bronchoscopic models) as well as cadaver models, to create realistic, emergency training scenarios
• An annual Canadian surgical emergencies Bootcamp is feasible and effective
• Active Experimentation learning styles (Acting, Initiating, Deciding) were more common than those that utilize Reflective Observation (Imagining, Analyzing, Reflecting) which favors a “hands-on” learning style

References

Figure 1. (Above) Practicing epistaxis management

Figure 2. (Above) Tubing is seen piercing the skull base to create an epistaxis model in a cadaver

Figure 3. (Left) A participant practices bronchoscopy

Figure 4. The Kolb learning styles