

**50th Anniversary of  
Residents' Research Day  
in the Department of  
Otolaryngology  
– Head and Neck Surgery  
Friday, April 26, 2024**



Hosted at the

London Hunt and Country Club  
1431 Oxford St W.  
London, ON, N6H 1W1

<https://www.schulich.uwo.ca/otolaryngology/cme/researchday/2024.html>

**PROGRAM**



## OVERALL LEARNING OBJECTIVES

By the end of this program, participants will be able to:

1. Critically appraise the scientific presentations with respect to methodology and clinical applicability pertaining to Otolaryngology – Head and Neck Surgery.
2. Discuss the scientific presentations and reflect on their potential implications for patient care.

## STUDY CREDITS

This event is an Accredited Group Learning Activity (Section 1) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada, and approved by Continuing Professional Development, Schulich School of Medicine & Dentistry, Western University. You may claim a maximum of 4.50 hours (credits are automatically calculated).

Each participant should claim only those hours of credit that he/she actually spent participating in the educational program.

## DISCLOSURES

\* I have/ \*\*have not had in the past 2 years a financial interest, arrangement, or affiliation with one or more organizations that could be perceived as a direct or indirect conflict of interest in the context or content of this education program.

### Continuing Professional Development Planning Committee

- Dr. Lorne Parnes \*\*
- Dr. Josée Paradis \*\*
- Dr. Camilla Stepniak \*\*
- Dr. Sumit Agrawal \* MED-EL
- Dr. Leigh Sowerby \* Sanofi-Genzyme, GlaxoSmithKline, Searchlight Pharma, Olympus, Paladin, NeilMed, Medtronic, Astrazeneca, Optinose, Freudenberg Medical

### Session Chairs

- Dr. Julie Strychowsky (AM)
- Dr. Anthony Nichols (PM)

At least 25% of this program is dedicated to participant interaction.

## **DISTINGUISHED VISITING PROFESSOR**

**Dr. Kathleen Yaremchuk, MD, MSA**

Chair Emeritus of Otolaryngology - Head & Neck Surgery at Henry Ford Hospital

### **"IF We Knew Then, What We Know Now About OSA"**

**By the end of this session, participants will be able to:**

1. Identify opportunities for personalized therapy for OSA
2. Discuss pharmaceutical agents for treatment of OSA
3. Describe alternative therapies for treatment of OSA



Dr. Kathleen Yaremchuk is the Chair Emeritus of Otolaryngology/Head & Neck Surgery at Henry Ford Hospital. She is Board Certified in Otolaryngology and Sleep Medicine. Dr. Yaremchuk has authored or coauthored 62 articles, edited or contributed to 7 books, and has given 80 presentations at regional, national and international meetings on surgical treatment of obstructive sleep apnea. She has received 6 major citations or awards from various national professional societies and has chaired or served on 27 regional and national society committees or editorial boards. Dr. Yaremchuk is the Past President of the American Academy of Otolaryngology-Head and Neck Surgery. She is the past chair of the Sleep Disorders Committee for the American Academy of Otolaryngology and serves as the American Board of Otolaryngology's representative to the American Board of Internal Medicine for Sleep Medicine.

## **DISTINGUISHED GUEST ALUMNUS**

**Dr. Hussain Alsaffar, MBBS, FRCS**

Consultant Head and Neck Oncology Surgery and Microvascular Reconstruction Surgery  
King Faisal Specialist Hospital and Research Center, Riyadh Saudi Arabia

### **"Navigating the Path to Success: Resilience and Strategies for Thriving During Otolaryngology-Head and Neck Residency"**

**By the end of this session, participants will be able to:**

1. Review the essential role of Resilience on mentors, peers, and resources in achieving success during otolaryngology residency
2. Describe key challenges and stressors commonly faced by otolaryngology residents and develop strategies for resilience and personal growth
3. Summarize effective time management and self-care techniques for maintaining a healthy work-life balance during residency
4. Illustrate the importance of continuous learning, adaptation, and seeking constructive feedback in the pursuit of excellence as an otolaryngologist-in-training



Dr. Hussain Alsaffar is an Otolaryngologist-Head and Neck Surgeon specializing in Head and Neck Oncology and Microvascular Reconstruction. Originally from Saudi Arabia, he embarked on an incredible journey pursuing medical expertise. After graduating from King Faisal University Medical School, he travelled to London, Ontario for his Residency in Otolaryngology-Head Neck Surgery from 2007 to 2012. Following that, he completed a two-year fellowship in Head and Neck Oncology and Microvascular Reconstruction Surgery at the University of Toronto, concluding in June 2014. From there, Dr. Alsaffar was an Ottawa Head and Neck Oncology team member. Since 2018, he held the positions of Program Director for the Otolaryngology-Head and Neck Surgery Residency program at the University of Ottawa, and the Fellowship Director for Head and Neck Oncology and Microvascular Reconstruction, and also chairing the weekly tumour board on Head and Neck Mucosal Oncology. His primary focus is on Head and Neck Oncology and complex Head and Neck Reconstruction, including Microvascular free tissue transfer. Dr. Alsaffar takes pride in providing excellent patient care and have gained a strong reputation among colleagues and patients. He is now a Head and Neck Oncology Surgery and Microvascular Reconstruction Surgery consultant at King Faisal Specialist Hospital and Research Center, Riyadh Saudi Arabia.

## A.M. SESSION

08:00 – 08:25

Coffee in Exhibitor Area

08:25 – 08:35

Welcome

08:35 – 08:50

Educational Objectives and Call to Order

08:50 – 09:00

**Dr. Brooke Turner** (Supervisors: Dr. Kathryn Roth, Dr. Michele Weir)

### **Adequacy Rate of Surgeon-Performed Ultrasound Guided Fine-Needle Aspiration Biopsy of Thyroid Nodules: A Quality Assurance Project**

**Background:** Thyroid nodules are estimated to be present in 30-60% of the general population, of which a small minority (5%) are malignant. Rates of non-diagnostic or unsatisfactory FNA biopsies (Bethesda I) within the literature is 5-11%. A procedure initially performed solely by radiologists is now more frequently performed by Otolaryngologists in the clinic setting. FNA biopsies performed in the clinic are more cost-effective and more convenient for patients, avoiding a second health care visit. Recent retrospective studies have compared rates of inadequate thyroid FNA biopsies performed by surgeons versus radiologists. The rate of non-diagnostic thyroid FNA biopsies performed by surgeons ranges from 5.0-30.0% across studies, while rates of non-diagnostic biopsies performed by radiologists is similar, ranging from 9.4-34.7%.

**Objectives:** The primary objective of the proposed study was to determine the rate of adequate FNA biopsies performed within a consecutive case series from a single provider practice with ultrasound guidance in the presence of a cytotechnologist. Our secondary outcome was to compare surgeon obtained cytopathology to final surgical pathology.

**Methods:** All thyroid FNA biopsies performed under a single thyroid surgeon's practice between January 2015 and December 2023 were reviewed. Cytopathology and thyroid nodule management, in the form of ultrasound surveillance or surgery, was recorded. FNA biopsies were removed from analysis if clinic notes suggested decompression or therapeutic drainage of a predominantly cystic nodule, if cytopathology report was not available or was inconclusive, if it could not be classified based on Bethesda criteria. Adequacy rates were assessed in relation to additional factors including nodule size, patient and operator, system factors.

**Results:** Ultrasound guided thyroid FNA biopsies on 169 patients between January 2015 and December 2023, directly by or under the supervision of a single surgeon were analyzed. The majority of patients were female (80%). After exclusions, 176 FNA biopsies of solid and mixed solid cystic nodules were included in analysis. Distribution of cytopathology results are as follows: 58 Bethesda I nodules (33%), 65 Bethesda II nodules (37%), 24 Bethesda III nodules (14%), 20 Bethesda IV nodules (11%), 5 Bethesda V nodules (3%) and 4 Bethesda VI nodules (2%). Fifty-seven patients went on to have thyroid surgery; of which all Bethesda V and VI nodules were found to be malignant.

**Conclusion:** Despite the presence of a cytotechnologist, and the routine use of ultrasound, rate of inadequate thyroid FNAs remained high and correlated to the smaller size of nodules being targeted for ultrasound FNA as opposed to palpation. Future directions include analysis of thyroid FNA biopsies performed by colleagues in radiology and other specialties, and surrounding community surgeons to determine group rate of satisfactory biopsies.

09:00 – 09:05

Interactive Discussion

09:05 – 09:15

**Dr. Daniel Newsted** (Supervisor: Dr. Sumit Agrawal)

### **Clinical Validation of a Novel Deep Learning Network for Automatic Cochlear Segmentation**

**Background:** The development of deep learning networks in surgical fields has the potential to improve patient care significantly. The capacity for robust pattern recognition of complex datasets can be used to understand variabilities in patient anatomy allowing for better preoperative planning and intraoperative execution. In otologic surgery, artificial intelligence has been used for cochlear implantation through the development of place-based maps with filters aligned to Organ of Corti tonotopicity resulting in improved speech recognition postoperatively.

**Methods:** In this study, a novel deep learning network created to automatically segment the scalae of the cochlea in clinical scans was assessed. Consent was obtained for the use of preoperative and postoperative computed tomography imaging from 55 patients who underwent cochlear implantation at London Health Science Center. Images were then retrieved from PACS as DICOM files that were subsequently de-identified and processed using 3D Slicer software. Patient images were then analyzed using the new deep-learning network.

**Results:** Group statistics were performed against a previously obtained synchrotron dataset demonstrating successful initial clinical validation of the new network.

09:15 – 09:20

**Conclusion:** Future efforts will be made to expand on this validation study and demonstrate the efficacy of using deep learning networks for optimal cochlear implantation.  
Interactive Discussion

09:20 – 09:30

**Dr. Sami Khoury** (Supervisor: Dr. Julie Strychowsky)

### **The Safety of the Laryngeal Mask Airway in Adenotonsillectomy: A Systematic Review and Meta-Analysis**

**Objectives:** Adenotonsillectomy is one of the most common surgical procedures worldwide. The current standard for securing the airway in patients undergoing adenotonsillectomy is endotracheal intubation (ETT). Several studies have investigated the use of the laryngeal mask airway (LMA) as an alternative to ETT in this procedure. We conducted a systematic review and meta-analysis to compare the safety and efficacy of the LMA versus ETT in adenotonsillectomy in adult and pediatric populations.

**Methods:** Databases were searched from inception to 2022 for randomized controlled trials and comparative studies. PRISMA guidelines were followed. Primary outcomes were the rate of conversion to ETT and the rates of perioperative respiratory adverse events (PRAEs). Secondary outcomes included desaturations, nausea/vomiting, and surgical time. A subgroup analysis, risk of bias, publication bias, and GRADE assessments were also performed.

**Results:** We identified 240 studies for screening with 12 included in our analysis (4176 patients). The mean overall conversion to ETT was 8.36% (95CI=8.17, 8.54), and for the pediatric group 8.27% (95CI=8.08, 8.47). The mean rate of conversion to ETT secondary to complications was 2.89% (95CI= 2.76, 3.03) while the rest was from poor surgical access. Overall, there was no significant difference in PRAEs (OR 1.16, 95CI=0.60, 2.22), desaturations (OR 0.79, 95CI=0.38, 1.64), or minor complications (OR 0.89, 95CI=0.50, 1.55). The use of LMA yielded significantly shorter operative time (mean difference -4.38min, 95CI=-8.28, -0.49) and emergence time (mean difference -4.15min, 95CI=-5.63, -2.67).

**Conclusions:** For adenotonsillectomy, LMA is a safe alternative to ETT and requires less operative time, especially in pediatric patients.

Interactive Discussion

09:30 – 09:35

09:35 – 10:05

Intermission

10:05 – 10:10

Call to Order

10:10 – 10:20

**Dr. Karan Gandhi** (Supervisor: Dr. Corey Moore)

### **Robot-Assisted Orbital Rim Reconstruction: A Cadaveric Study**

**Objective:** This cadaveric study aims to evaluate the efficiency and accuracy of robotic-assisted contouring for calvarial bone grafting in orbital rim reconstruction.

**Introduction:** Manual cartilage contouring for orbital rim reconstruction is traditionally laborious and time-consuming. However, the advent of robotic technology has previously demonstrated promising outcomes in expediting the contouring process of nasal and ear cartilage for reconstruction. Motivated by these successes, we hypothesize that robotic assistance will similarly improve the efficiency and precision of bone contouring.

**Methods:** This study will utilize cadaveric specimens to assess the feasibility and efficacy of robotic contouring for calvarial bone grafting in orbital rim reconstruction. A retrospective chart review will be done to determine the time required for manual contouring of calvarial bone. The cadaveric phase will implement a robot-assisted technique to compare its efficiency against traditional manual methods. Additionally, we will explore using 3D scanning technology to evaluate its potential in facilitating real-time assessment of bony defects for guided reconstruction.

**Results:** We expect that robotic-assisted contouring of calvarial bone grafts will significantly reduce the time required for the procedure, improving efficiency over manual techniques, which currently average 45 minutes. The expected time for robotic contouring is less than 10 minutes. Furthermore, we anticipate the feasibility of integrating 3D scanning to guide the robot's bone carving process.

**Conclusion:** Robotic-assisted contouring is promising to enhance the calvarial bone grafting process in orbital rim reconstruction. Should this technology prove successful, it could offer quicker and more accurate treatment for patients requiring orbital reconstruction.

Interactive Discussion

10:20 – 10:25

10:25 – 10:35

**Dr. Zaid Almubarak** (Supervisor: Dr. Leigh Sowerby)

### **Analysis of Repair Costs for Nasopharyngoscopes in Outpatient Clinics at a Tertiary Academic Centre**

**Introduction:** Flexible Nasopharyngoscopy is a valuable diagnostic and therapeutic procedure used in otolaryngology to visualize the nasal passages, nasopharynx, and larynx. Flexible Nasopharyngoscopes are

prone to wear and tear due to frequent usage and damage from reprocessing. Consequently, the repair costs can significantly impact healthcare budgets. This study aims to investigate and analyze the repair costs associated with nasopharyngoscopy in a tertiary academic centre with the goal of optimizing maintenance strategies and reducing financial burden.

**Objectives:** The main objectives of this study are as follows:

1. To determine the annual repair costs incurred for nasopharyngoscope repair.
2. To explore potential correlations between nasopharyngoscopy usage patterns and repair frequency.
3. To identify the most common types of repairs required for flexible nasopharyngoscopes
4. To propose cost-effective maintenance strategies to minimize repair expenses while ensuring optimal equipment performance.

**Methodology:** This study was conducted as a retrospective review of repair and maintenance records for the current in use nasopharyngoscopes from two tertiary academic centres in Canada (Hospital V and Hospital S) from October 1st to October 30th, 2023. Both hospitals utilize automated endoscope reprocessing decontamination (Steris System 1 using peracetic acid; Steris Canada Inc., Mississauga, Canada). Hospital V handles the scope processing within the clinic itself, whereas Hospital S performs this process in a separate centralized reprocessing area. The data was collected from the hospital's electronic maintenance database and financial records. The frequency and duration of equipment usage were obtained from procedure logs and was correlated with repairs to investigate possible relationships. Descriptive statistics was used to calculate the mean, median, and standard deviation of repair expenses.

**Results:** The combined inventory of both hospitals includes 26 Flexible Nasopharyngoscopes, with a total repair cost of \$83,445 Canadian dollars between 2010 and 2023. These scopes have been used collectively 36,785 times over 156 months. Specifically, Hospital V possesses 10 Flexible Nasopharyngoscopes purchased in 2020 and 2021, utilized 14,039 times. The repair expenses for these scopes in Hospital V were \$1,940 CAD, averaging 0.14 Canadian dollars per use. On the other hand, Hospital S is equipped with 16 Flexible Nasopharyngoscopes purchased between 2010 and 2023. These have been used 22,746 times, incurring repair costs of \$81,505 CAD, resulting in an average repair cost of \$3.58 CAD per use. Our analysis indicated no significant link between repair costs and the duration of endoscopic exam. However, a notable correlation was found between the frequency of use and repair costs (p-value = 0.0081).

**Conclusion:** The study is one of the few in the literature to quantify repair costs for nasopharyngoscopes when reprocessed with high level processing in a tertiary care clinic, which are significantly less than has been previously reported in literature supporting single-use nasopharyngoscopes. An association between the frequency of endoscope usage and repair costs was found.

Interactive Discussion

10:35 – 10:40

Introduction of Dr. Kathleen Yaremchuk, Distinguished Visiting Professor

10:40 – 10:45

**Dr. Kathleen Yaremchuk: IF We Knew Then, What We Know Now About OSA**

10:45 – 11:30

**By the end of this session, participants will be able to:**

1. Identify opportunities for personalized therapy for OSA
2. Discuss pharmaceutical agents for treatment of OSA
3. Describe alternative therapies for treatment of OSA

The diagnosis, management and treatment of obstructive sleep apnea continues to evolve as research and outcomes studies provide data regarding outcomes and quality of life. A role for personalized medicine is now an opportunity for patients and providers.

Interactive Discussion

11:30 – 11:45

Group Photo in Ballroom followed by Lunch

11:45 – 13:05

## ITINERARY

### P.M. SESSION

Welcome Back and Call to Order

13:05 – 13:25

**Dr. Emily Aleksa** (Supervisor: Dr. Julie Strychowsky)

13:25 – 13:35

**Surgical Management of Paediatric Complicated Sinusitis**

**Introduction:** Complicated acute rhinosinusitis (cARS) in pediatric populations can develop when there is

extension of the infection to surrounding tissues, including intracranial and/or orbital structures. Limited research exists on the impact of the COVID-19 pandemic on the epidemiology and outcomes of complicated sinusitis.

**Objectives:** To describe the epidemiology and adverse outcomes of cARS in both local and international pediatric populations, how this differs by type and timing of surgical intervention, and in relation to the COVID-19 pandemic.

**Methods:** In this two-part study, pediatric patients admitted with cARS between January 2013 and January 2023 to a single centre were reviewed. Clinical presentation, microbiology, medical and surgical management, and adverse outcomes were compared across subgroups using descriptive analyses. To assess international data, the American College of Surgeons National Surgical Quality Improvement Program (NSQIP) database was accessed, including pediatric cases from 2012-2021, combining International Classification of Diseases (9th and 10th revisions) codes and 2014 Current Procedural Terminology.

**Results:**

Part I: Retrospective Analyses: 64 pediatric patients with cARS were admitted (56.3% male), mean age 8.80 years. 46.2% underwent surgical management, with initial surgery occurring 4.07 days from admission on average (SD=8.31). Intracranial complications occurred in 11/43 (25.6%) and 8/21 (38.1%), and orbital complications in 32/43 (74.4%) and 13/21 (61.9%) Pre- and Post-COVID groups respectively.

A larger proportion of patients Post-COVID had a complex clinical course compared to those Pre-COVID ( $p=.044$ ), with more requiring multiple surgeries (45.5% Post-COVID vs. 11.6% Pre-COVID,  $p=.002$ ), and prolonged antibiotic therapy (>21 days) (72.7% Post-COVID vs. 41.9% Pre-COVID,  $p=.018$ ). Patients with intracranial complications also had more complex clinical courses compared to those with orbital complications alone (95.2% vs. 33.3%,  $p<.001$ ). Those with positive *S. anginosus* cultures (60.9%) were 3.35 times (95% CI: 1.16 – 9.72) more likely to experience an adverse outcome ( $p=.026$ ) compared to those without *S. anginosus* (31.7%).

Part II: NSQIP Analyses: 789 operative cases of pediatric cARS were identified from the NSQIP database: including 158 intracranial, 563 orbital, and 68 other soft tissue or bony involvement. 21.4% experienced an adverse event (AE), with significantly more in the intracranial subgroup (34.8%) compared to orbital (13.7%) or other subgroups (23.5%;  $p<.0001$ ). The intracranial subgroup more likely required reoperation (OR: 2.7; 95% CI: 1.70-4.14,  $p<.0001$ ). Both the intracranial (OR: 3.2; 95%CI: 1.65-6.06) and other (OR: 3.3; 95%CI: 1.40-7.69) subgroups more likely required readmission compared to the orbital subgroup ( $p=.0003$ ).

Patients with American Society for Anesthesiologists (ASA) classification  $\geq 3$  had proportionally more AEs (26.1%) compared to ASA <3 (15.5%,  $p=.0005$ ). ASA was higher ( $\geq 3$ ) for intracranial (64.7%) compared to orbital (19.9%) or other (36.8%) subgroups ( $p<.0001$ ).

Similar proportions of each subgroup had delayed operative management (>48 hours from admission,  $p=0.3410$ ), and when controlled for age, those with delayed surgical intervention were 48% less likely (OR: 0.55; 95%CI: 0.36-0.84) to experience an AE ( $p<.0001$ ). There was no difference in AEs before vs. during the COVID-19 pandemic ( $p=0.5740$ ).

**Discussion:** Pediatric patients with intracranial involvement of cARS experience increased morbidity, reoperation, and readmission compared to orbital and/or soft tissue involvement. Patients managed during the COVID-19 pandemic experienced similar morbidity with no delay in surgical management when assessed internationally, however local data suggests increased morbidity since onset of the COVID-19 pandemic.  
Interactive Discussion

13:35 – 13:40

13:40 – 13:50

**Dr. Palak Suryavanshi** (Supervisor: Dr. Julie Strychowsky)

### **Medical Reconciliation in Otolaryngology-Head & Neck Surgery: A Quality Improvement Project**

**Background:** The total cost of preventable, drug-related hospitalizations is approximately \$2.6 billion a year [1, 2]. A formal process in which a systemic and comprehensive review of all medications is communicated throughout a patient's care is termed as medication reconciliation. Medication reconciliation arose as the solution to the patient safety problem of unintentionally introducing changes in patients' medication regimens due to incomplete or inaccurate medication information at transitions in care. In Canada, every accredited hospital must therefore undergo Required Organization Practices (ROPs) including medication reconciliation. At London Health Sciences Centre (LHSC), the 2021/22 departmental performance for medication reconciliation completion rates on admission and discharge were low.

**Objectives:** The goal of this project was to increase the rates of medical reconciliation on admission and discharge in the Department of Otolaryngology-Head & Neck Surgery (OHNS) at LHSC. Specifically, we aimed to attain a 90% completion rate for medication reconciliation on admission and 85% on discharge in alignment with institutional benchmarks by September 2023. We also sought to identify best practices and barriers to completion to inform our quality improvement (QI) efforts.

**Methods:** This QI project followed the IHI Model for Improvement. A pre-post intervention study was conducted. A process map was used for problem characterization. The percentage of medication reconciliations completed on a monthly basis was evaluated. Change ideas included education, quarterly then monthly reporting of performance metrics, and a "no change to home medications" function in the EMR. Process measures were collected for 16 months pre- and post-department-wide educational intervention. Balancing measures included resident workload. PDSA cycles were followed. Analysis included statistical process control charting and Pearson chi-square tests.



**Results:** Baseline medication reconciliation for fiscal year 2021/22 was 81% for admission and 43% for discharge. Following department-wide grand rounds in September 2022 and subsequent implementation of regular metric reporting, the post-implementation monthly average was 88% for admission and 72% for discharge ( $p < .001$ ). The 90% target for admission was first achieved in January 2023 and 85% target for discharge in December 2023. Statistical process control charting showed special cause variation, indicating a statistically significant improvement. There was no change to perceived resident workload.

**Conclusions:** Our surgical department exceeded and sustained the targeted metric for admission and discharge medication reconciliation using a QI approach and interventions including education, monthly reporting of performance metrics, and a “no change to home medications” function on the EMR.

Interactive Discussion

13:50 – 13:55

13:55 – 14:05

**Dr. James Fowler** (Supervisor: Dr. Leigh Sowerby)

### **Management of Anterior Epistaxis in the Emergency Department Using Rapid Rhino and Merocel: A Cost Analysis**

**Background:** Epistaxis affects around 60% of the population once in their lifetime. When conservative attempts fail, nasal tampons are often required to stop anterior bleeds. Merocel and Rapid Rhino are both commonly used nasal tampons. Health economics is critical in our publicly funded system. A proper economic analysis has not been undertaken comparing the overall cost of both products for anterior epistaxis.

**Objective:** Compare the total cost of Merocel and Rapid Rhino from a provincial payer and an academic hospital perspective for the management of anterior epistaxis.

**Methods:** A retrospective review of anterior epistaxis patients in the year 2018 from Victoria and University hospital was conducted. Patients were followed for two-weeks to capture rebleed events. Cost-analysis was completed for both products from a hospital and provincial perspective.

**Results:** The rate of rebleeds with Merocel was 42% (26/62) compared to 24% (4/17) with Rapid Rhino. Despite being the more expensive product, inverse probability weighting regression adjustment calculations revealed Rapid Rhino did not have a statistically significant difference in costs per patient (\$62.40, 95% CI: -\$25.75 to \$150.55) from the hospital perspective as well as the provincial health care payer perspective (\$78.25, 95% CI: -\$18.38 to \$174.89).

**Conclusion:** There is no significant difference in cost between Rapid Rhino and Merocel for anterior epistaxis from a hospital or provincial payer prospective.

Interactive Discussion

14:05 – 14:10

14:10 – 14:20

**Dr. Andrew Bysice** (Supervisor: Dr. Kevin Fung)

### **Leave the Tube In Or Pull It Out? Challenging the Current Thinking About Managing an Airway Fire Using A Porcine Model**

**Objective:** Airway fires are a devastating possible complication of airway surgery. Once ignited, there is no consensus whether the flow of oxygen must be discontinued before or after removing the endotracheal tube (ETT). The ideal method to extinguish an airway fire was therefore explored in this study.

**Methods:** Pig tracheas were intubated with a 7.5 air-filled polyvinyl ETT. Oxygen was set at 15L/min at FiO<sub>2</sub> 100%. Monopolar cautery was used to ignite the ETT tube through a tracheostomy. Four replicates were completed for each arm to extinguish the fire; 1. Disconnecting oxygen flow without ETT removal; 2. Saline application only; 3. Disconnection of oxygen and saline application; 4. ETT removal followed by disconnection of oxygen. Primary endpoint was time from ignition to when extinguished. Secondary endpoint was gross examination of tracheas by three blinded evaluators for severity of burn (Graded 1-3).

**Results:** Mean extinguishing time and average severity of burn for condition 1 was 3.75 seconds and 1.42 Grade, respectively; condition 3 was 2 seconds and 1.83 Grade, and condition 4 was 5.75 seconds and 2.25 Grade, respectively. Saline alone trials (condition 2) were aborted due to safety issues as the fire could not be extinguished by this method. No statistical difference was found between conditions.

**Conclusion:** Discontinuing oxygen with or without saline application was the fastest method to extinguish airway fires with least tracheal damage. Removing exogenous oxygen should be the first step in managing an airway fire in vivo, though more study is required to confirm these findings.

Interactive Discussion

14:20 – 14:25

14:25 – 14:55

Intermission

14:55 – 15:00

Call to Order

15:00 – 15:05

Introduction of Dr. Hussain Alsaffar, Distinguished Guest Alumnus

15:05 – 15:50

**Dr. Hussain Alsaffar: Navigating the Path to Success: Resilience and Strategies for Thriving During Otolaryngology-Head and Neck Residency**

**By the end of this session, participants will be able to:**

1. Review the essential role of Resilience on mentors, peers, and resources in achieving success during otolaryngology residency
2. Describe key challenges and stressors commonly faced by otolaryngology residents and develop strategies for resilience and personal growth
3. Summarize effective time management and self-care techniques for maintaining a healthy work-life balance during residency
4. Illustrate the importance of continuous learning, adaptation, and seeking constructive feedback in the pursuit of excellence as an otolaryngologist-in-training

Otolaryngology residency is a rigorous and demanding journey that requires dedication, perseverance, and the ability to adapt to ever-changing clinical scenarios. This educational topic will delve into the objectives of understanding the multifaceted challenges faced by otolaryngology residents and providing practical strategies for building resilience and maintaining a healthy work-life balance. It will emphasize the importance of effective time management, self-care, and seeking support when necessary to prevent burnout and promote well-being. Additionally, the topic will address the significance of continuous learning, adaptability, and the value of seeking constructive feedback as critical elements in the journey toward becoming a proficient otolaryngologist. By exploring these key themes, this topic aims to equip otolaryngology residents with the knowledge and tools necessary to not only survive but thrive during their residency, ultimately preparing them for a successful career in the field.

15:50 – 16:05

Interactive Discussion

16:05 – 16:10

Residents Day Attendee Draw

16:10 – 16:15

Simon Kirby Most Caring Resident Award

16:15 – 16:20

Evaluation Form Completion

16:20 – 16:25

Closing Educational Remarks

## **AWARDS AND PRIZES**

### **SIMON KIRBY MOST CARING RESIDENT AWARD**

Presented to the resident who demonstrates excellence in compassionate care

### **OUTSTANDING RESIDENT TEACHER AWARD FOR POSTGRADUATE EDUCATION**

Presented to a senior resident (PGY 4 or 5) who has provided consistently outstanding teaching experiences to their junior residents

### **CHESKI INNOVATIVE RESIDENTS RESEARCH FUND AWARD**

Presented for the most novel research project

### **UNDERGRADUATE TEACHING AWARD**

Presented to the resident with the highest teaching evaluation

### **EXCELLENCE IN UNDERGRADUATE MEDICAL EDUCATION AWARD**

Presented to a faculty member who has demonstrated excellence in undergraduate medical education to all students

### **PETER CHESKI INNOVATIVE RESEARCH AWARD**

Presented for the most innovative research project

### **C. A. THOMPSON SCIENTIFIC ACHIEVEMENT AWARD**

Presented for the most impactful research project

### **DR. W. GREGORY CHERNOFF IMPACTFUL PRESENTATION AWARD**

Presented for the most skillfully presented project

### **RESIDENT AWARDS**

Presented to residents who did not receive one of the above awards

### **CLINICAL TEACHERS AWARD FOR RESIDENCY TEACHING**

Presented to a faculty member who has provided consistently outstanding teaching experiences to all Residents

THIS PROGRAM HAS RECEIVED AN EDUCATIONAL GRANT FROM:



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