Executive summary

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   c. Working group #3 - iLearn ENT project (Dr. Scott Kohlert, U Ottawa)
   d. Working group #4 - National Resource/Exam Bank (Dr. Adrian Gooi, U Manitoba)
   e. Working group #5 - Collaborative research (Dr. Al Chiodo, U Toronto)
4. 4th CSOHNS UME Retreat – Montreal, QC, November 8, 2014
1. **ACKNOWLEDGEMENTS**

CSO-HNS

Dr. Pat Gullane

Planning committee

Dr. Paolo Campisi
Dr. Yvonne Chan
Dr. Al Chiodo
Dr. Ian Witterick

Invited speakers

Dr. Jana Bajcar
Dr. Chi Ming Chow
Dr. Karen Leslie
Dr. Richard Pittini
Dr. Martin Schreiber

Working group leaders

Dr. Al Chiodo
Dr. Adrian Gooi
Dr. Monica Hoy
Dr. Scott Kohlert
Dr. Lily HP Nguyen

Attendees

Jana Bajcar
Dale Brown
Paolo Campisi
Yvonne Chan
Al Chiodo
Chi Ming Chow
Joel Davies
Chris Diamond
William el Masri
Kevin Fung
Sara Giannantonio
Jordan Glicksman
Jeremy Goldfarb
Adrian Gooi
Anna Goulding
Patrick Gullane
Vishaal Gupta
Russell Hollins
Monica Hoy
Thileep Kandasamy
Scott Kohlert
John Lee
Karen Leslie
Jonathan Maclean
Lily HP Nguyen
Dupe Oyewumi
Richard Pittini
Dave Pothier
Julian Savage
Martin Schreiber
Raewyn Seaberg
Andy Sinclair
Peter Spafford
Oakley Smith
Darren Tse
Al Vescan
Ian Witterick
Nik Wolter
Jason Xu
Jonathan Yip

40 attendees (faculty, residents, students), representing 11 medical schools across Canada
2. **Strategic priorities**

(i) To develop learning objectives that are endorsed by the CSOHNS UME group and constitute minimum training standards for graduating Canadian medical students.

(ii) To collaboratively develop an innovative learning resource based on mobile technology (iLearn ENT project)

(iii) To create a virtual central repository of teaching and assessment material to share between centres (National Resource/Exam Bank Project)

(iv) To advance educational scholarship in our specialty through collaborative research

(v) To foster a community of practice

(vi) To constantly refine and re-evaluate these priorities on a regular basis to ensure goal congruence amongst members
3a. Working Group #1 - Goals of the CSOHNS UME working group (Dr. Lily HP Nguyen, McGill)

5 goals identified

- finalize objectives by May 2014
- finalize ilearn ENT project by May 2014
- continue to identify team leaders, set clear deadlines
- meet at least 2x per year = once at CSO, increase frequency of Working group meeting to annually (if not possible, then meet thru internet 1x/year)
- sharing of materials between institutions through a secure, password protected channel = i.e. details of curriculum map, lectures, assessment forms, small group cases innovative projects and others.
3b. **Working group #2 - National Learning Objectives (Dr. Monica Hoy, U Calgary)**

The purpose of this project is to create a set of Otolaryngology- Head and Neck Surgery objectives for medical students by Otolaryngologists. It is widely recognized that Oto-HNS is underrepresented in the currently undergraduate curricula across the nation. Our goal is to create a tool, that as a group, can use to advocate for Oto-HNS at the undergraduate medical education level.

To create these objectives, we are utilizing a modified Delphi technique and require participation from YOU. This will be a 3 step process. The objectives in the survey are compiled from the MCC (Medical Council of Canada) objectives and the objectives previously put together by the UME group. This survey is the first step -it is a fact finding mission to mine through many lists to determine relevant and irrelevant topics. Again, this is a FIRST STEP -some of the wording is odd, and some of the objectives may not sound relevant, but this material is from the preexisting objectives. This is an iterative process and in order to succeed with the project, we need your participation.

[https://www.surveymonkey.com/s/2WJ3R98](https://www.surveymonkey.com/s/2WJ3R98)
3c. Working group #3 - iLearn ENT project (Dr. Scott Kohlert, U Ottawa)

LearnENT was launched in January, 2013 and has since been downloaded by thousands of users across the globe. During our small group session we focused on three primary topics: project scope, future expansion of the project, and marketing.

A. Project Scope

When development on LearnENT began in 2010, we initially planned to focus on gearing our content towards medical students. Version 1.0 of the app reflected this fact, and most of the content was written at a beginner level. Thanks to a significant content contribution by Dr. Sowerby (UWO), Version 2.0 also included several sections that were primarily focused towards more advanced learners (such as classification systems, TNM staging and hundreds of eponyms in otolaryngology). Certain members of the UGME working group had voiced concerns that the app had become too complicated for undergraduate students. One suggestion was to develop a separate, simpler app for medical students. However, our small group felt that this would actually result in more confusion for the end user. We also felt that it was more convenient to have a single app, rather than forcing the user to bounce back and forward between multiple apps. Other suggestions included clearly marking beginner content from intermediate/advanced content (either with text label, color coding, etc). A final possibility would be for UGME directors to develop a list of mandatory modules that they feel each of their students should complete, telling their students that all other modules are optional.

Action points

We will experiment with different modalities for highlighting the different difficulty levels within the app.

We suggest that educators from each school decide which modules would be most useful for their students, and suggest these modules accordingly.
B. **LearnENT: future expansion**

At the UGME meeting in June, twenty six modules (based on the objectives previously developed by the CSO UGME working group) were assigned to volunteer authors across Canada. While the deadline was set for July 19th, unfortunately only 10/26 modules had been completed at the time of this report (October 21, 2013).

**Action points**

We will send Dr. Witterick a list of the incomplete modules. He has offered to send an email to each of these authors, asking them to complete the module before November 19th. If these authors are unwilling or unable to complete their modules by this deadline, we will reassign the module to another author (we have a list of extra volunteers willing to write modules).

We plan to have these modules finalized and developed for **April, 2014** so they can be presented at CSO 2014 in Ottawa. We plan to submit this update as a mini-workshop (where we will discuss the new features, as well as the collaborative process behind the development).

If all goes well, we also hope to submit abstracts to next years American Academy meeting, as well as international conferences to help gain exposure for our project.

C. **Marketing**

While the app has been downloaded thousands of times, there are still many Canadian medical students who have not yet discovered LearnENT. We discussed the best ways to reach medical students, and decided that the most effective method is word of mouth.

**Action points**

We will develop a PowerPoint slide that can be added to the start/end of medical school presentations during OTO-HNS lectures. We will distribute this slide to each of the UGME directors by email, and suggest that it be inserted in all OTO-HNS lectures (there was significant buy in from the large group during the presentation).

We also suggest that medical schools distribute a small blurb about LearnENT in the welcome email to clerkship students starting their rotation in ENT. It may also be helpful to make certain modules (such as the history and physical exam sections) mandatory to all students prior to the beginning of their rotations. We will develop a paragraph that schools can insert into their welcome emails.
A. Exam Bank in ENT (EBOTOHNS!)  

BACKGROUND  
-Hard to make good questions  
-Many questions are not vetted  
-National exam bank would increase the size of the bank questions for each institution.  
-Could allow for mapping of bank to national objectives.

OBJECTIVE  
-to produce a ROUGHexambank and then VETTEDexambank

DELIVERABLES

- ROUGH exam bank (available by Dec 31, 2013)  
- VETTED exambank (available May 2014 onwards, dynamic file)  
- Publication on process

MEMBERS

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<table>
<thead>
<tr>
<th>TIMELINE</th>
<th>ACTION</th>
<th>DELEGATION</th>
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</thead>
<tbody>
<tr>
<td>Now</td>
<td>Homework! Email will be sent out. Email current multiple choice questions in specific word format to <a href="mailto:thileep@gmail.com">thileep@gmail.com</a>, <a href="mailto:umecso@gmail.com">umecso@gmail.com</a>. Attach question statistics if possible.</td>
<td>ENT UGME directors or delegates</td>
</tr>
<tr>
<td>As questions received</td>
<td>-questions compiled into master RoughFile -senders will receive a link to Dropbox folder with access to the compiled ROUGHexambank list, as well as for future vetted questions</td>
<td>Adrian</td>
</tr>
<tr>
<td>Dec 31, 2013</td>
<td>Deadline for question submission</td>
<td>ENT UGME directors or delegates</td>
</tr>
<tr>
<td>Every 1-3 months</td>
<td>EBENT group will review questions to filter into the VETTEDexambank file, a group of questions at a time</td>
<td>Chris, Thileep, Adrian, EBENT group</td>
</tr>
<tr>
<td>May 2014</td>
<td>ExamBank status reviewed at Canadian Meeting.</td>
<td>CSO UME Working Group</td>
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<td></td>
<td>May also request for files for OTO-HNS UME commons (ie. Curriculum design, study notes, lectures, assessment tools, etc). Lectures should be in PDF format (can convert powerpoint to PDF) and should remove any images or material with potential copyright concerns.</td>
<td></td>
</tr>
<tr>
<td>Ongoing after May 2014</td>
<td>Ongoing review of questions to filter into VETTEDexambank by the EBENT group</td>
<td>EBENT group</td>
</tr>
<tr>
<td>Ongoing after May 2014</td>
<td>VETTEDexambank available to participants</td>
<td>Exam Bank participants</td>
</tr>
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1. **OtoSIM**
   
   **a. Seminar-Based Otoscopy Simulation.**  
   Faculty of Medicine, Department of Otolaryngology-Head & Neck Surgery, University of Toronto,  
   Toronto, Ontario, Canada  
   Supervisor: Dr. A. Chiodo  
   Collaborator's: Dr. P. Campisi, Dr. V. Forte, Dr. K. Fung (Western University), Dr. D. Oyewumi, Dr. J. Xu  
   
   **Description of Research:**  
   This study is a multi-centre trial evaluating use of otoscopy simulation in a classroom and seminar setting. The OTOSim™ will be used in a classroom session involving the entire medical school class at the University of Toronto and Western University in the first and second year of the medical school. A seminar model will be used in the clerkship with groups of 18-24 students. During these sessions, a faculty member will be projecting the images at the front of the classroom or seminar room on the big screen using the landmarking software to illustrate key structures for each pathologic entity. A pre and post-test will be performed and questionnaire regarding the utility of the session will be administered. A group of 6 otosimulators with laptop and software can be loaned to other university sites who wish to participate in the study.

   **b. Objective evaluation of otoscopy skills amongst primary care residents: Multi-center Trial**  
   Faculty of Medicine, Department of Otolaryngology-Head & Neck Surgery, University of Toronto,  
   Toronto, Ontario, Canada  
   Supervisor: Dr. A. Campisi  
   Collaborator's: Dr. P. Campisi, Dr. V. Forte, Dr. D. Oyewumi  
   
   **Description of Research:**  
   The ear presents a special challenge to primary care resident learners, as otoscopy is a learned clinical skill that requires an immobile patient, no visual obstruction (i.e. cerumen) and a reference-bank of "normal" otologic variations. Not surprisingly, primary care residents have difficulty correctly recognizing otologic pathology. This difficulty is further compounded by variable exposure to clinical and didactic teaching in Otolaryngology – Head and Neck Surgery (Oto-HNS) during medical school and residency.  
   Finally, evaluation of otoscopy accuracy in primary care residency training is lacking, and thus an important clinical skill that directly impacts patient care is not being objectively evaluated.  
   The goal of the present investigation is to perform a multi-center trial to evaluate the utility of an otologic simulator to objectively evaluate the diagnostic accuracy of primary care residents. Additionally, this study seeks to determine if a hands-on training session
and lecture results in improved diagnostic performance. A group of 6 otosimulators with laptop and software can be loaned to other university sites who wish to participate in the study.

2. Neck Examination Simulator

**Improving screening and early detection of neck masses - Validation and assessment of a neck palpation simulation model.**
Faculty of Medicine, Department of Otolaryngology-Head & Neck Surgery, Western University, University of Toronto and University of Ottawa
Supervisor: Dr. K. Fung (Western University)
Collaborator: Dr. A. Chiodo, Dr. G. Kim, Dr. L. McLean

_Description of Research:_
Rates of thyroid cancer and throat cancer are increasing at a steady rate in Ontario. Early detection and screening of neck lumps by primary care doctors is very important. Training in medical school is inadequate, because they learn on people without cancerous lumps in their necks. Technological advances in medical simulation have allowed us to create realistic models of the neck with great precision. We are creating a series of neck models, some with normal anatomy, some with abnormal lumps. These models will be used to train doctors to do a better job of detecting abnormal lumps. The innovation is a novel high fidelity educational simulation model to improve the ability of clinicians to detect lumps in the neck. The hypothesis is that this innovation will improve screening and early detection of tumors of the neck (including thyroid cancer, metastatic oropharyngeal cancer, and other tumors). This educational innovation in medical simulation will improve the ability of primary care physicians and medical trainees to detect abnormal neck masses. The simulator can be deployed to a variety of different centres across the province/country, including both tertiary care teaching centres and communities. This simple educational intervention may directly improve the early detection of tumors of the neck and lead to improved clinical outcomes.

3. Community-based Otolaryngology-Head & Neck Surgery Clerkship
Faculty of Medicine, Department of Otolaryngology-Head & Neck Surgery, University of Toronto,
Toronto, Ontario, Canada
Supervisor: Dr. A. Chiodo
Collaborator’s: R. Figeroa

_Description of Research:_
**Background**
Review of the literature has not revealed any similar undertaking in the Otolaryngic literature although the concept of community-based clerkship experiences in the other disciplines such as family medicine, pediatrics and surgery are well established. Presently, the bulk of the undergraduate teaching is delivered in the third year of the medical program.

**Objectives and Hypotheses**
Presently, the Department of Otolaryngology-Head and Neck Surgery at the University of Toronto has an undergraduate clerkship program that is predominantly delivered in tertiary and “super-specialized” institutions predominantly focusing on high-level head and neck oncology surgery and lateral skull base surgery. The patient resources provided to students do not reflect
the learning objectives of the clerkship course. The misalignment has lead to poor student satisfaction scores and teacher effectiveness scores at certain tertiary-based teaching sites. It has been hypothesized based on this data and comments provided by students that undergraduate clerkship otolaryngologic education should be conducted in a community academic setting where the patient encounters reflect the course objectives providing students with a patient mix reflective of what the primary care practitioner should see.

Methods
Presently, the undergraduate third year clerkship class consists of 259 students. The clerkship class has been divided into a tertiary hospital group consisting of 125 students and a community hospital group consisting of 134 students. The tertiary group is divided among 5 hospitals while the community hospital group is divided among 6 community academically affiliated hospitals. Both groups are undergoing the allotted 1-week curriculum comprised of 3.5 clinic days, 1 day of operative experience and 0.5 of seminar time. Other university sites could be easily incorporated into this present study provided evaluation methods are comparable.

Evaluation
Evaluation of the project is comprised of standardized questionnaires for student satisfaction scores. Furthermore, teacher effectiveness scores and academic marks are being compared between the two groups.

4. Other Possible Projects Discussed as Possible Future Initiatives:
   1. Clerkship Tool Kit for Faculty Development in OTOHNS
   2. IOSCE Case Development and Validation Studies
   3. Virtual Patient Case Development and Validation Studies
   4. Educational Materials
   5. Simulation
      a. NasoSim
      b. Nasal Packing Simulator
      c. Ear wax irrigator Simulator
   6. Use of Ultrasound to teach Neck Anatomy

Contact information about the above Projects:

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4. **4th CSOHNS UME Retreat – Montreal, QC, November 8, 2014**

Dr. Mark Tewfik, Dr. Lily HP Nguyen, and Dr. Saul Frenkiel have very kindly agreed to host our next CSOHNS UME retreat in Montreal on **Saturday November 8, 2014**.