A Guide to Implementing Grand Rounds for Optometry Students

This guide was created as part of the Erasmus+ co-funded project OCULUS - Optometry Curriculum for Lifelong Learning through Erasmus (www.oculuserasmus.org).

Introduction and Purpose: 'Grand Rounds' are clinical teaching scenarios in which groups of students have exposure to unusual patient cases. The patient is managed by a suitably qualified clinician, while members of the group observe, carry out some clinical investigations where appropriate, and ask/respond to questions from the patient or supervisor. This guide aims to give a brief overview of the first grand rounds program at Hadassah Academic College and how this activity addresses the educational needs of our students. We hope this guide can be used by other optometry schools to plan similar events for their students. The focus of the grand rounds at our institution is on retinal pathology, based on the gaps in our curriculum. A similar type of teaching paradigm can be planned for other types of patients such as corneal pathology, or binocular vision anomalies.

Objectives: To provide our students with intensive experience in clinical eye care to address knowledge gaps and provide exposure to a variety of pathologies that they may not encounter in the day to day clinic.

Methods: Students attended a clinical skills workshop consisting of four patient stations. For each station students worked in pairs or groups of three to perform a brief history and focused physical exam on a real patient moving on to the next patient after 30 minutes. After the 2 hour session there was an hour long debriefing with the supervising faculty.

***Planning*:** We had the privilege of collaborating with the City, University of London School of Optometry and Visual Science to help us replicate their Grand Rounds program. Two months prior to the Grand Rounds a group of faculty and staff, including those from City university met online to plan our workshop. The following topics were discussed:

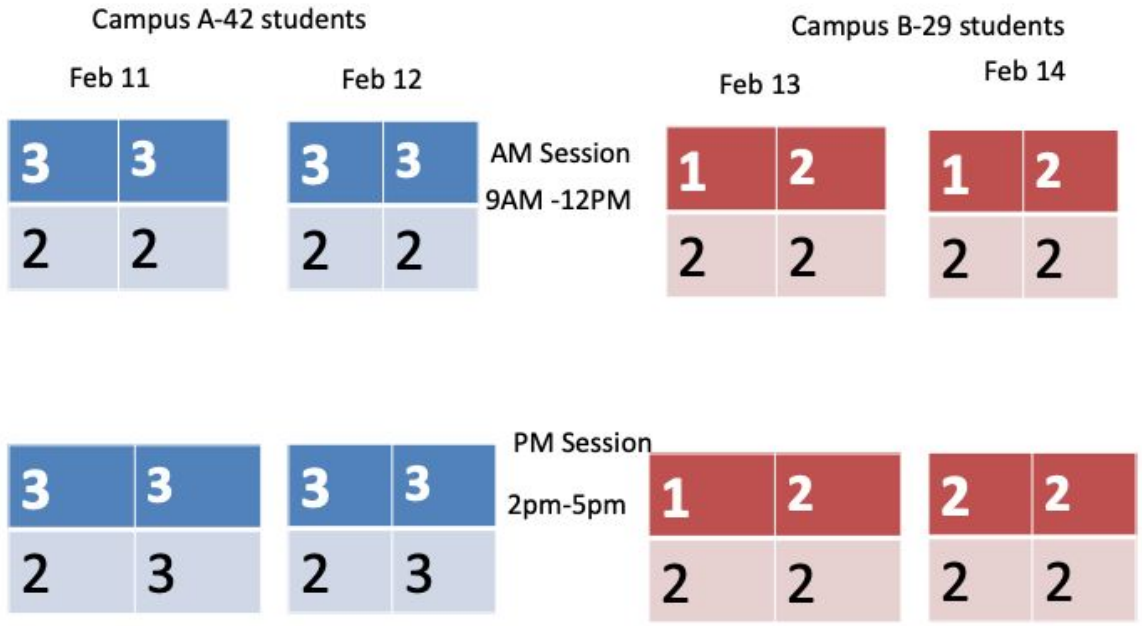
1) A needs assessment of the skills/competencies and the types of pathology the Grand Rounds should target. Because we have a strong cornea/keratoconus service we decided to target retina and glaucoma and the skills of slit lamp biomicroscopy and binocular indirect ophthalmoscopy, fundus photography, and OCT.
2) Methods of patient recruitment:
   a) Directly from clinic- notice to faculty to flag patients with history of eye disease
   b) Electronic medical records search and/or manual search through fundus photos looking for pathology
   c) Distribution of flyers to local ophthalmology or optometry practices

3) Logistics of how many students would be involved, number of patients needed, number of stations per session and number faculty needed. We decided that ideally we would have one faculty member per station.
4) Budget to pay participating patients (including one alternate) and overtime faculty
5) Faculty members qualified to use diagnostic pharmaceuticals must be present.

Needs assessment was based on the core clinical competencies of the American Academy of Graduate Medical Education.

Core Competency	**Learning Gap**	**Method of Acquisition**
Patient Care/Procedural skills	Need more clinical experience performing eye health exams, skill using the necessary equipment especially performing dilated fundus exams	Direct patient encounters, use of medical equipment- Slit Lamp biomicroscopy, binocular indirect ophthalmoscopy, fundus camera, optical coherence tomography (OCT).
Medical Knowledge	Need more exposure to medical pathology in the clinical setting	Review of patient cases with the faculty
Interpersonal and Communication Skills	More experience obtaining a medical history and communicating the assessment and plan in a way that the patient can understand.	Direct patient interaction, explanation of examination procedure, findings and diagnosis to patient
Professionalism	More experience as healthcare provider to conduct themselves appropriate to that role	Students play the role of healthcare provider, in mode of dress, speech
Practice-Based Learning and Improvement	Exposure to a variety of new pathologies. Improve on skill of self-reflection after patient encounters in order to improve future practice.	Review of patient cases with informal feedback both self reflective and mentor guided

Based on the number of students and faculty availability we mapped out the workshops to determine how many stations/patients we would need. We had a total of 8 half day sessions with four patients per session; requiring us to fill 32 patient slots. However, most patient recruits were willing and available to attend multiple sessions making the number recruited far less than 32.



Patients arrived 20 minutes early and their pupils were dilated following an assessment of the anterior chamber by the supervising faculty. Students assigned to a particular session were split into 4 groups. For each patient, a history was taken by the group and then each student had the opportunity to examine the patient using slit lamp biomicroscopy and binocular indirect ophthalmoscopy. Additionally, the students performed fundus photography and OCT of the macula and/or RNFL as time permitted. Students were each given a sheet to record findings in the standard medical SOAP note format. Findings were discussed with the optometrist/ophthalmologist assigned to that station and an assessment and plan was developed. Students then discussed the assessment and plan with the patient. One staff member was assigned to monitor the time and notify students when they needed to switch to the next station.

At the end of the two hours, the groups gathered together and discussed the findings encountered at each station. The discussion was led by an ophthalmologist who reviewed the fundus photos of each patient with the students and gave a brief review of each pathology encountered, as well as their clinical management. Students were also able to discuss diagnostic challenges or difficulties they encountered with performing the exams. The range of pathology students encountered in the grand rounds included: advanced glaucoma, glaucoma suspect, diabetic retinopathy, peripheral retinal tears after laser treatment, cataracts, retinitis pigmentosa, age related macular degeneration. Students recorded each of their patient encounters into the Meditrek medical education management system.

The feedback was overwhelmingly positive from faculty and students. Given the numerous requests to repeat this program biannually, it was clear that the grand rounds program met a significant need in our curriculum. Moreover, we have developed a formal survey to distribute to faculty and students for future events.

Additional recommendations based on our experiences:

1. The smaller the faculty to student ratio the better the experience. Although 2 faculty could staff the four stations we felt pulled between two groups at times.
2. Send an email with date of activity along with an informational flyer to students describing the workshop and how the day is going to flow. Include a reminder to practice their clinical skills with the slit lamp and binocular indirect ophthalmoscope so they can get the most out of the patient experiences.
3. Maintain a log (perhaps in the form of a spreadsheet) of all the patients who have attended and include their pathology. Make a note for next time of which patients were student friendly and which could not tolerate multiple exams.
4. Provide food for the patients and a quiet place for them to relax between sessions
5. Budget for back up patients in case of no show.
6. As mentioned above we collaborated with the City, University of London School of Optometry and Visual Science to implement the grand rounds program. In addition to helping us plan the event, one of their faculty came to Israel to help us run the program. The City faculty member ensured the program ran smoothly, helped supervise the students and provided us with helpful feedback afterwards.