Guerrilla Eye Service Boot Camp
Mini-Elective
Spring 2010

Course Dates: January 6, February 10, 17, March 3, 24
Wednesday evenings, 6:00-8:00 PM

Maximum Students: Open

Class Year: MS1 and MS2

Course Director: Evan Waxman, MD
Assistant Professor of Ophthalmology
Director, UPMC Eye Center Mercy
Director, Ophthalmic Medical Education
Director, Inpatient Consult Services

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Description:
Looking into the eyes of patients you can see disease processes in ways that cannot be observed in any other part of the body with such minimal invasive techniques. Vision has a significant impact on quality of life, yet many people go under diagnosed and treated for preventable causes of vision loss such as diabetes, hypertension, trachoma, and glaucoma. For example 21% of people over 18 living with diabetes (3.2 million adults) in 2005 report visual impairment according to the American Foundation for the Blind. This loss affects all facets of their lives: education, employment, social interactions, and socioeconomic status, to name a few. With screening, education and treatment, much of this disease impact could be reduced. Through this highly interactive course, students will learn to hone their eye examination skills and learn diagnosis, treatment and prevention of eye diseases. This will be accomplished through small group discussion, interaction with a renowned guest speaker, and hands on activities where students will learn the proper use of the various diagnostic tools commonly used in ophthalmology.

Course Objectives:
• To understand the impact of various eye diseases on U.S. populations focusing on medically underserved groups.
• To understand the pathology, diagnosis, treatment and screening for common eye pathologies.
• To learn the hands on techniques for improved vision examinations: history, physical, lensometry, autorefraction, retinoscopy, the phoropter, visual field testing and optic nerve examination, direct and indirect opthalmoscopy and the retina camera.

Requirements:
• Actively participate in all 5 sessions including discussion participation and learning how to use the equipment presented.
• Complete reading assignments prior to discussions.
Course Outline

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Location:
All sessions, Scaife Hall, Rooms 422A&B—6:00-8:00 PM

Session 1: January 6, 2010
The Burden of Eye Disease in the US and Abroad
Special Guest Speaker from Unite for Sight: Jennifer Staple-Clark, founder of Unite for Sight will lead an interactive discussion on the burden of eye disease in the US and abroad and what we can do to be the change. To optimize this discussion, students will be required to read an article that will be placed in your mailboxes prior to attending the session. This will be followed by the practical introduction to the eye exam. Students will learn the proper physical exam techniques of afferent testing. They will learn how to assess vision, check pupils, color vision and confrontation fields.

Session 2: February 10, 2010
Common Pathologies: Refractive Error, Cataracts, Trachoma, and Refractive Surgery.
As a small group, students will discuss these common pathologies in the setting of patient cases with a focus on diagnosis and treatment. This will be followed by a hands-on activity where students will learn more about the principles of refraction. Students will learn how to use the following equipment: lensometry, autorefration, retinoscopy, the phoropter. They will learn why these instruments are used and what they can identify.

Session 3: February 17, 2010
Principles of Glaucoma.
This session will explore Glaucoma via patient case presentations. The focus will be on exploring the impact of Glaucoma on public health and how screening impacts disease prevention and early treatment. Students will have the opportunity to learn the proper technique for glaucoma screening, visual field testing and optic nerve examination on each other. Please be prepared to have one eye dilated.

Session 4: March 3, 2010
Diabetic Retinopathy and Age related macular degeneration case presentations.
Utilizing small group discussion of patient case presentations, students will learn more about the presentation, progression and treatment of diabetic retinopathy and macular degeneration. Students will utilize Direct and Indirect Ophthalmoscopy and the retina camera on each other to gain practical experience. Please be prepared to have one eye dilated.

Session 5: March 24, 2010
Moving forward – You and Ophthalmology
This will be a unique opportunity to learn more about careers in Ophthalmology including the state of the field, timeline for the matching process, research possibilities here at Pitt, what program directors are looking for and where to get more information. Students will have the opportunity to ask questions and make contacts for future experiences in ophthalmology. This will be followed by a hands on activity where students will put it all together by doing a complete eye exam on each other.
All articles for discussion will be handed out prior to the class session either in electronic handout via email or placed in your mailboxes.

Recommended Resources:

Ophthalmology Made Ridiculously Simple (Medmaster Ridiculously Simple)<http://www.amazon.com/exec/obidos/tg/detail/-/0940780844/ref=ord_cart_shr?%5Fencoding=UTF8&m=ATVPDKIKX0DER&v=glance>> - Stephen Goldberg; MD / William Trattler; MD; Paperback
