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Introduction to Regional Anesthesia: Learning Ultrasound Guided Nerve Blocks Mini-Elective Spring 2019

<u>Course Dates:</u>	January 9, 16, 30, February 13 Wednesdays, 5:00-6:30 PM
<u>Maximum Students:</u>	20
<u>Class Year:</u>	MS1
<u>Course Director:</u>	Steven Orebaugh, MD Professor of Anesthesiology and Critical Care Medicine
<u>Contact Information:</u>	Steven Orebaugh, MD orebaughsl@anes.upmc.edu
<u>Registration:</u>	Betsy Nero, Office of Medical Education betsy@medschool.pitt.edu

Description:

This four-week course will introduce students to ultrasound-guided peripheral nerve blocks and other aspects of regional anesthesia, with particular focus on upper extremity and brachial plexus blocks. Course sessions will include a short (15 mins) didactic session, gross anatomy review of the associated structures using prosected cadavers in the Pitt morgue, as well as ultrasound depictions of the same anatomy to help students become familiar with the depiction of three-dimensional anatomy in a two dimensional image. Students will also be practicing needle guidance techniques using a phantom/partial task trainer at WISER.

Course Objectives:

1. Learn anatomy of structures associated with brachial plexus nerve blocks.
2. Learn sonographic anatomy of these structures.
3. Practice needle guidance techniques in a phantom/partial task trainer.
4. Learn techniques involved in correct placement of brachial plexus blockade.
5. Understand the benefits of regional anesthesia in surgical pain control (esp in orthopedics, general surgery, thoracic surgery, obstetrics).
6. Learn how ultrasound can minimize the risks associated with peripheral nerve blocks.

Requirements:

Attend all sessions, participate actively in scanning, complete in-class post-test (practical and written exam – not graded!) to assess knowledge acquired during course.

Pre-requisites:

None

COURSE OUTLINE:

Introduction to Regional Anesthesia: Learning Ultrasound Guided Nerve Blocks

January 9, 16, 30, February 13— 5:00-6:30 pm

Location:

Scaife Hall and WISER

Course Director:

Steven Orebaugh, MD

Participating Faculty:

Steven Orebaugh, MD, Professor of Anesthesiology and Critical Care Medicine
Kaarin Michaelsen, MD PhD, PGY-3 resident, Department of Anesthesiology.

Texts/Required Reading:

None

Session One: January 9, 2019

This session will introduce students to the course. A short didactic lesson will follow. Then the group will divide into several smaller groups, with one group learning needle techniques in phantom task trainers and the other learning to do ultrasound scanning on live models.

Session Two: January 16, 2019

This session will feature a short didactic lecture for all students, followed by cadaver-based anatomy teaching for upper extremity nerve blocks for one group, while the other groups work on scanning the neck and axilla.

Session Three: January 30, 2019

This session will again feature a short didactic lecture for all students. All students will do advanced scanning for sonoanatomy on live models and needle practice with phantom task trainers.

Session Four: February 13

This session will feature a short didactic session followed by an opportunity for students to demonstrate their new skills in brachial plexus blockade using a multi-station practical activity involving scanning on live models and a short (10 question) post-test. Interested students can stay on after the session to learn more about ultrasound imaging of the heart and lungs.