



University
of
Pittsburgh

School
of
Medicine

Introduction to Regional Anesthesia: Learning Ultrasound Guided Nerve Blocks Mini-Elective Spring 2017

<u>Course Dates:</u>	January 4, 11, 18, 25 Wednesdays, 5:00-6:30 PM
<u>Maximum Students:</u>	20
<u>Class Year:</u>	MS1 and MS2
<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 on live models 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 orthopedic surgery.
6. Learn how ultrasound can minimize the risks associated with peripheral
7. nerve blocks.

Requirements:

Attend all sessions, participate actively in scanning, complete in-class pre-test to assess prior knowledge of anatomy, complete in-class post-test (practical and written exam) to assess knowledge acquired during course.

Pre-requisites:

None

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412.648.8714

COURSE OUTLINE:

Introduction to Regional Anesthesia: Learning Ultrasound Guided Nerve Blocks

January 4, 11, 18, 25

Wednesdays, 5-6:30 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-2 resident, Department of Anesthesiology

Richard Hubbard, MD

Kristin Ondecko Ligda, MD

Texts/Required Reading: None

Session One: January 4, 2017

This session will introduce students to the course, during which they will take a short (10 question) pre-test to assess prior knowledge of neck and nerve anatomy. A short didactic lesson will follow. Then the group will divide into several smaller groups, with one going to the Pitt morgue to view a prosected cadaver, and the other groups working at WISER to begin learning how to use ultrasound equipment.

Session Two: January 11, 2017

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 at WISER on scanning the neck and axilla, possibly on live volunteers.

Session Three: January 18, 2017

This session will again feature a short didactic lecture for all students. The gross anatomy group will review upper extremity anatomy for nerve blocks at Scaife, and the other groups will do scanning (possibly with models) to illustrate sonoanatomy and needle practice with phantom task trainers.

Session Four: January 25, 2017

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 some of the major lower extremity structures (eg popliteal blocks) commonly used for orthopedic surgical procedures.