Early Exposure to Anesthesiology: A Horizontal and Vertical Integration Framework for Preclinical Medical Students

Primary Author: Amareen Dhaliwal MD, MPH, MHA Candidate
Boston University School of Medicine

Co-Authors: Mohan Preet, MD;

Introduction
American Society of Regional Anesthesia and Pain Medicine

Abstract
With the rising competitive nature of anesthesiology residency matches, medical schools and students are in need for programs to enhance their exposure towards the field as early as the clinical years. The topic of anesthesiology exists only in light nature through preclinical years. Furthermore, anesthesiology is not a required clerkship during clinical years. Due to the lack of options for earlier exposure to anesthesiology, most competitive anesthesiology applications are limited to broader determinants such as grades and United States Medical Licensing Examination (USMLE) Step 1 scores. Vertically and horizontally curricula offered optionally to preclinical students provides a cognitive benefit of early exposure with has shown success in several fields, including medicine. Materials and methods

A literature review of current methods of medical school coverage of anesthesiology, novel methods for teaching in medical education, and available resources for anesthesiology were analyzed for best-practice in the preclinical years.

Mentioned Commercial Companies: United States Medical Licensing Examination® (USMLE) Step 1 by The National Board of Medical Examiners® (NBME)

Results/Case report
The information was consolidated to support a structured framework for horizontal and vertical integration into current, changing medical preclinical curricula which now ranges from 12 to 24 months. Review of over 60 current materials supported 4 optional methods for interested students: Horizontal integration of online education exposure, preclinical anesthesiology mentorship, anesthesiology-focused research, simulation workshops, and vertical integration for anesthesiology-heavy preclinical topics such as physiology and pharmacology. Development or leadership of anesthesiology groups, attendance of anesthesiology conferences and events, and facilitation of relationships with anesthesiologists was also supported.

Discussion
This established framework offers a time-conservative, cost-effective method for medical schools and students interested in increasing preclinical exposure to anesthesiology. This can enhance
student exposure to anesthesiology early enough to support competitive applications and to support the current measures residency programs already reviews.