

Introduction

Working in an operating room is a fundamental aspect of medical training. However, for many medical students, their first experience in an operative setting doesn't come into their third year clerkship training. As a result, many report feeling underprepared for, and intimidated by, this experience. Likewise, medical personnel in ORs have reported that students often lack proper training in OR etiquette, scrubbing techniques, and awareness of proper sterile field maintenance¹. In addition, early exposure to the operating room and better preparedness for this experience is associated with an increase in expressed interest in pursuing future careers in surgical subspecialties amongst medical students². For this reason, we sought to create an written overview and interactive class to serve as a practical guide for young medical students and non-surgical hospital employees to be completed prior to entering an OR.

Abstract

Due to the rural nature of Payson, Arizona there is a need for professionals and students to be in an operating room, possibly scrubbed in, when they may never have previously done so. In order to help increase comfort of the individuals, as well as the safety of the patient, this project, in coordination with the surgeons and surgical technicians, created an orientation program for those new to an OR. Covering the basics from how to maintain surgical sterility, orientation to basic OR tools, and possible actions an individual new to an OR may be asked to perform. Because of the longitudinal interprofessional campus, this class is written up to be handed off to following classes. The guide was written for a target audience of MS1-MS3 medical students, either prior to shadowing experiences, or prior to surgical clerkships. Special emphasis was placed on outlining the specific expectations for students in the OR, such that students would feel more prepared for their unique role in this setting.

Core Tenants of Guide

- Cardinal rules
 - How to maintain of a sterile field
 - How to maintain personal safety and patient safety
 - How to prepare adequately for a case
- Setting up the patient
 - Emphasizes the unique expectations and responsibilities of the medical student
- How to scrub
 - How to scrub with proper technique and when to use different forms of sterilization
- How to glove and gown
 - How to maintain sterility during the gowning/gloving
 - Professional behavior towards colleagues in the OR, including scrub techs and nursing staff
- Etiquette
 - General dress code, ways to maintain sterility, and expectations for medical students
 - Definitions of common tools
 - Tips and tricks for success



Outcomes

Projected outcomes for this project will be measured via a survey distributed to MS3 students at the beginning of their clinical rotations, and at the end of their surgical clerkships. Objective measures of success will include:

- Subjective feelings of preparedness for OR experience
- Adequacy of knowledge of techniques such as scrubbing, gowning, and gloving
- Awareness of OR etiquette
- Enthusiasm for surgical specialties as a whole
- How likely students would be to recommend guide to others

Discussion and Conclusions

- Medical students often feel unprepared and intimidated by the operating room
- Medical staff in the OR reports that medical students often lack knowledge of fundamental etiquette and sterile techniques
- A comprehensive guide for medical students increases student confidence and success in their surgical clerkships

References

- ¹ Ji YD, McKinley SK, Farrell M, Hemingway M, Qadan M, Saillant N, Phitayakorn R. Operating Room Staff Perceptions of Medical Students. *J Surg Educ.* 2022 Mar-Apr;79(2):370-382. doi: 10.1016/j.jsurg.2021.10.011. Epub 2021 Dec 4. PMID: 34876370.
- ² Patel MS, Mowlds DS, Khalsa B, Foe-Parker JE, Rama A, Jafari F, Whealon MD, Salibian A, Hoyt DB, Stamos MJ, Endres JE, Smith BR. Early intervention to promote medical student interest in surgery and the surgical subspecialties. *J Surg Educ.* 2013 Jan-Feb;70(1):81-6. doi: 10.1016/j.jsurg.2012.09.001. Epub 2012 Oct 17. Erratum in: *J Surg Educ.* 2013 May-Jun;70(3):435. Mowlds, Donald S [added]; Foe-Parker, Jennifer E [added]; Whealon, Matthew D [added]; Endres, Jill E [added]. PMID: 23337675.