

TITLE: Longitudinal “Oral Board Exams” to Maintain Educational Continuity

What problem was addressed?

One of the goals of residency training is to expose trainees to the broadest possible range of clinical encounters. With the realities of a variable clinical environment and time-limited rotation schedules, this goal has always been difficult to attain, but it was made significantly more challenging during the COVID-19 pandemic when the number of elective and non-urgent cases encountered fell drastically, particularly in the operating room. Simulation is often used to fill in the gaps of clinical education, but the structural and time investments required for high-fidelity simulation make it difficult to implement for many training programs. Furthermore, traditional simulation frequently includes time-pressured decision making that can create undue stress for participants and is perhaps unnecessary when planning for a complex but non-emergent patient encounter.

What was tried?

To give anaesthesia trainees at an academic medical centre exposure to more complex neurosurgical cases, we administered a month-long longitudinal “oral board exam” during the Neuroanaesthesia rotation using the message board feature of the Moodle learning management system (LMS). To increase psychological safety, the message board was only accessible to one resident and one faculty member. Residents were given one of three patient stems modelled on those commonly used during oral board examinations in Anaesthesiology and Surgery and widely available from subspecialty societies and published curricula. The

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faculty member posted a single question each weekday morning, and residents were expected to answer one question per rotation day. All feedback was withheld until the end of the month.

What lessons were learned?

The program was run by a single faculty member from April 2020, through February 2022, and more than 90% (77 of 85) of eligible residents participated. Of those, 43% (33/77) met the expectation to answer at least one question per rotation day. On average, residents answered 1.09 (range 0.25 – 6.00) questions per rotation day, indicating that many chose to participate even on days when they were assigned elsewhere, allowing them to remain engaged with Neuroanaesthesia despite scheduling limitations.

Resident feedback was overall positive, with several requests to expand the program to other subspecialties. The ability to respond to questions on any device made participation straightforward, and they appreciated the privacy of the individual discussion board, which made the experience less intimidating than usual mock oral boards exams. Most residents disliked proceeding through the month without any feedback, but this feature was intentional to mimic the experience of an actual oral board exam.

For faculty, the time commitment was less than five minutes per workday per resident to post the next question and note any feedback to be given at the end of the month.

Unexpectedly, the high participation rate also allowed us to focus group didactics on areas where many residents struggled, in addition to targeting one-on-one teaching to gaps in individual resident knowledge. Overall, this program could easily be implemented with any

LMS, document sharing software, or messaging app, making it a widely accessible approach to teaching in a psychologically safe learning environment.