

## **CORD Simulation 560: Simulation for Assessment - Pros and Cons**

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### **Pros**

- Allows for objective scoring of residents.
  - Requires observable, often binary actions.
- Can reveal knowledge and personality based areas of improvement to residents who may have less insight.
  - Allow residents to observe and reflect upon their own performance by reviewing tapes. Skilled debriefing may be required.
- Can generate data for Milestone scoring on items not often or easily observed on-shift
  - Link scenario metrics to ACGME EM Milestones
- Consistent scenarios and assessment tools create a means to compare learners
  - Ensure consistency between scenarios so each learner sees the same case, requiring significant time training sim operators, standardized patients, and faculty raters. Many cases can be adapted from those on [MedEd Portal](#) and other sites.
- Procedural competency testing is well-supported by the literature
- Sim-based assessments may mitigate racial and gender bias in evaluations of residents.
  - There is evidence on both sides here.

### **Cons**

- A reliable assessment may require more scenarios that can reasonably be obtained in any one assessment.
  - Literature has suggested up to 6 hours<sup>1</sup> and/or 7 scenarios<sup>2</sup> required.
- Can score “simisms” more than actual clinical abilities.
  - Learner comfort in sim lab must be established before performing high stakes assessments
- In order to keep the “answers” secret, must limit the debriefing discussions or trust learners not to share.
  - Have a library of cases that rotate over 3-4 years (depending on length of residency)
- “Garbage in, garbage out”
  - Obtaining good data requires significant effort/time validating assessment tools prior to using assessments for high stakes evaluation.

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<sup>1</sup> NEWBLE, D. I. and SWANSON, D. B. (1988), Psychometric characteristics of the objective structured clinical examination. *Medical Education*, 22: 325–334. doi:10.1111/j.1365-2923.1988

<sup>2</sup> Yule, S., Rowley, D., Flin, R., Maran, N., Youngson, G., Duncan, J. and Paterson-Brown, S. (2009), Experience matters: comparing novice and expert ratings of non-technical skills using the NOTSS system. *ANZ Journal of Surgery*, 79: 154–160.