

Simulation Innovation – Better Learning and More Engagement

Individualized Simulation Sessions

- Effectively this is **sim office hours**.
- 6 faculty members pick 8 dates for “office hours”
 - Two faculty members cover each date
 - Dates are scattered over 4 or 5 months
 - Prevents excluding residents b/c of away rotations or ICU rotations
 - Faculty members only have to make 2 or 3 schedule requests for this each semester
- Residents request procedures to cover ahead of “office hours” and self-schedule a date/time to attend from the available options
 - Residents required to do 1 session each semester but can do more
 - Sessions are capped at a maximum of 4 residents per session, meaning the worst faculty to learner ratio is 1:2.
 - Often ratios are 2:3 or 1:1
- Faculty evaluate the procedure requests and decide what procedures to cover each day
 - Sessions are also a great opportunity to cover high-stakes, low-frequency procedures – For example, we cover transvenous pacing every session
- Respects faculty time
 - Minimal schedule requests each semester
 - Scheduled at times to allow faculty to go to an evening shift after a session, so faculty can choose not to lose a day off for the teaching
- Respects resident wellbeing
 - Residents can go to evening shifts after a session
 - Have more than two times the number of slots as we have residents → easy for residents to get a desired slot
- Not much admin required
 - 2 google docs and a google form
 - Faculty self-scheduling spreadsheet
 - Resident self-scheduling spreadsheet
 - Procedure request google form
 - Sim Fellowship coordinator reminds residents and faculty a few days ahead of scheduled sessions

“Soft” Simulation

- Response to resident feedback regarding increased stress during simulation sessions that impaired learning, and resident frustration that cases often did not accurately reflect real life scenarios
- Aimed to develop additional cases “beyond the bread and butter” that practiced potentially challenging patient/family interactions and unavoidable, realistic workplace scenarios
- “High fidelity” simulation
 - Addition of “interruptions” to cases – EKGs, EMS calls
 - Residents are handed EKGs or are required to answer EMS calls during cases for incoming patients that they may or may not encounter during the case.
 - Typically added on to intern level cases to keep more senior residents engaged
 - Patients may or may not actually present during the case, which requires senior resident to prepare team “just in case”.
 - Decompensated boarding patient cases
 - Team is called by nursing to reevaluate a decompensated boarding patient
 - Team must be careful not to anchor based on the established diagnosis, reevaluate the patient, interpret the prior testing and escalate the patient’s care.
 - Case example - “A 39 yo male with a history of HIV is boarding in your emergency room awaiting a bed assignment after being diagnosed with influenza and pneumonia. While awaiting a bed, he has an increasing oxygen requirement and the ED team must intervene.”
- Special population simulation
 - Developed with the goal of practicing unique and often difficult patient and family interactions in the emergency room
 - Cases developed in conjunction with representatives from the respective patient populations, in addition to residents, fellows, and interested faculty
 - Palliative care case
 - Developed in conjunction with palliative care fellow and local hospice agency
 - Simulation mannequin as patient with standardized patient as family member
 - Septic patient who was recently discharged from hospital for pneumonia presents to emergency room. Team initially begins to stabilize the patient, but soon recognizes patient is extremely ill.
 - Team must have conversation with patient’s sister utilizing the SPIKES model, making sure to inquire as to the patient’s wishes and not the wishes of the sister. After the decision is made to aggressively focus on the patient’s comfort, the team must offer medications and adjuncts to help with the patient’s dyspnea and pain.
 - LGBTQ case
 - Developed in conjunction with Whitman Walker Health, a local community-based health organization that focuses on LGBTQ and HIV care
 - Standardized patient used as patient
 - Female patient presents with right upper quadrant pain that began a few days prior. She is tachycardic on exam, otherwise hemodynamically stable. Through appropriate questioning, patient will discover that the patient is on oral contraceptive pills as estrogen therapy while transitioning from male to female.

Her symptoms are due to a pulmonary embolism. The team will have to explain to her why she has a pulmonary embolism and discuss estrogen alternatives for her.