An innovative small group approach to teaching residents how to become rapid response team leaders in an adult inpatient medicine setting.

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Context and Objective: One of the greatest fears of residents on their hospital rotations, is in responding to emergency medical conditions. These rapid responses or medical emergencies as they are typically called begin with an overhead page in which the team must immediately respond. They are a vital part of resident education, and many programs expect senior residents to lead these teams. Despite this importance, there is no standardized training for residents. My objective is to continue developing an interactive, small group, simulation-based training session for family medicine residents on how to become inpatient medicine rapid response team leaders.

Setting: The setting is the adult inpatient medicine rotation in a community hospital in the third year of an 18-member family residency program. This two-hour simulation takes place during new intern and senior resident orientation in July.

Intervention/study design: 12 cases representing common in hospital medical emergencies are discussed in a small group setting with each senior resident leading one case. The intern class collectively acts as the intern on the team. The teaching format involves virtual simulation in which the preceptor provides a typical nursing report. The senior resident can then order tests or treatments with direct feedback from the preceptor in an iterative process. The goal is for the senior resident to work with the interns as a team to quickly come up with a differential diagnosis, testing, and treatment plan, realizing that in an emergent situation, you often need to start treatment or order tests before you have developed a differential diagnosis. The goal is for residents to develop a schema for how to approach a medical emergency in the hospital. Pre- and post- session surveys will be used with the 5-point Likert scale to assess resident's comfort with responding to medical emergencies and leading rapid response teams.

Conclusion:
Data will be collected before and after the next session in July 2021. Limitations include the small sample size at one community hospital.

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Case example
Rapid response, Room 499

Shortness of breath – 2 RNs and patient care technician at bedside

1st impression: elderly female awake and alert, visibly short of breath, speaking full sentences. Dressing noted R hip. Vital signs completed: 98.6, 119, 30, 110/78, 85% RA.

Orders:
Supplemental oxygen
Chest X-ray
ABG
EKG
Labs – troponin, chem 7, CBC
POCUS
Assistant nurse manager, ICU resource nurse, and respiratory therapist arrives.

History and exam:
From RN: 80 yo female with h/o HTN, DM2, diastolic CHF here with R hip fracture. s/p repair 4 days ago, needed transfusion for post-operative bleeding, today doing well, working with PT, was to go to SNF today. Exam: heart regular rhythm, tachycardia, no visible JVD, no murmurs, lungs CTA b/l, +tachypnea. RLE with 2+edema, LLE 1+ edema.

Data from chart: WBC: 6.5, normal diff, hgb: 9.5 (up from 7 yesterday), plts: 150, chem7: normal.

Reassessment/orders: sats now 94% on 4 L NC. Improved work of breathing. CT PA chest, POCUS

Differential diagnosis:
PE
ACS
Pneumonia
Anemia
Hypoventilation from pain meds - atelectasis
CHF/transfusion reaction

Results:
EKG: sinus tachy 112
ABG: 7.45/32/55 on room air
Chest XR: clear lung fields, no consolidations or effusions
CTPA chest – large saddle embolus

Treatment/discussion
Management of acute PE