Just the Facts: how to teach emergency department flow management

Teresa M. Chan, MD, MHPE*; Jonathan Sherbino, MD, MEd†; Arthur Welsher, MD‡; Alexander Chorley, MD§; Alim Pardhan, MD, MBA¶‖

BRIEF CASE DESCRIPTION

Even before starting your evening shift you know it's going to be busy. Ambulances are lined up in front of the hospital, and the charge nurse already seems stressed out. The senior Emergency Medicine (EM) resident is standing in the physician office, ready to start her shift as well. You have worked with her a few times during this rotation. She is competent, you trust in her management plans for all her individual patients. Together you both review the patient tracker: a variety of patient presentations ready to be seen, plus an additional 20 patients in the waiting room. Negotiating the learning objective for the shift, the resident indicates that she would like to work on more efficiently managing patient flow and the administration of the emergency department (ED). But…isn't that a skill you just learn from experience? You wonder what evidence-informed strategies might exist for training her for this next step.

BRIEF STATEMENT OF CLINICAL QUESTION

What are evidence-informed instructional methods for training emergency medicine residents in patient flow and ED management? Figure 1 summarizes various approaches to teaching ED flow and management.

1. Before they can flow, they must know!

Before residents can be entrusted with running a busy ED, they must have a solid grounding in how to manage core patient presentations.[1] Junior trainees should focus on providing care for individual patients, learning how to prioritize management decisions between patients before being asked to coordinate patient flow for a section of (or the entire) ED.

2. Harness the power of observational methods: The learners are already watching

Social constructivism and recent studies[2] suggest that residents learn as much from listening to attendings as observing them. Be attentive to what you role model regarding patient flow and ED management. Consider using a 'think-aloud' protocol as you make key decisions. Include a resident in key conversations with the charge nurse or other administrators.

Remember, trainees are engaging in a 'cognitive apprenticeship' that allows them to learn by understanding your thought process.[2] But, you need to pull back the curtain so they can see and understand your reasoning.

From the *Division of Emergency Medicine, Department of Medicine, McMaster Education Research, Innovation, and Theory (MERIT), Program for Faculty Development, McMaster University, Hamilton, ON; †Division of Emergency Medicine, Department of Medicine, Health Professions Education Research, Faculty of Health Sciences, McMaster University, Hamilton, ON; ‡RCPSC Emergency Medicine Training Program, University of Toronto, Toronto, ON; §Division of Emergency Medicine, Department of Medicine, McMaster University, Hamilton, ON; ¶RCPSC Emergency Medicine Training Program, McMaster University, Hamilton, ON; and the ‖Division of Emergency Medicine, Department of Medicine, McMaster University, Hamilton, ON.

Correspondence to: Dr. Teresa Chan, 2nd Floor, McMaster Clinics, 237 Barton Street E., Hamilton, ON, L8L 2X2; Email: teresa.chan@medportal.ca

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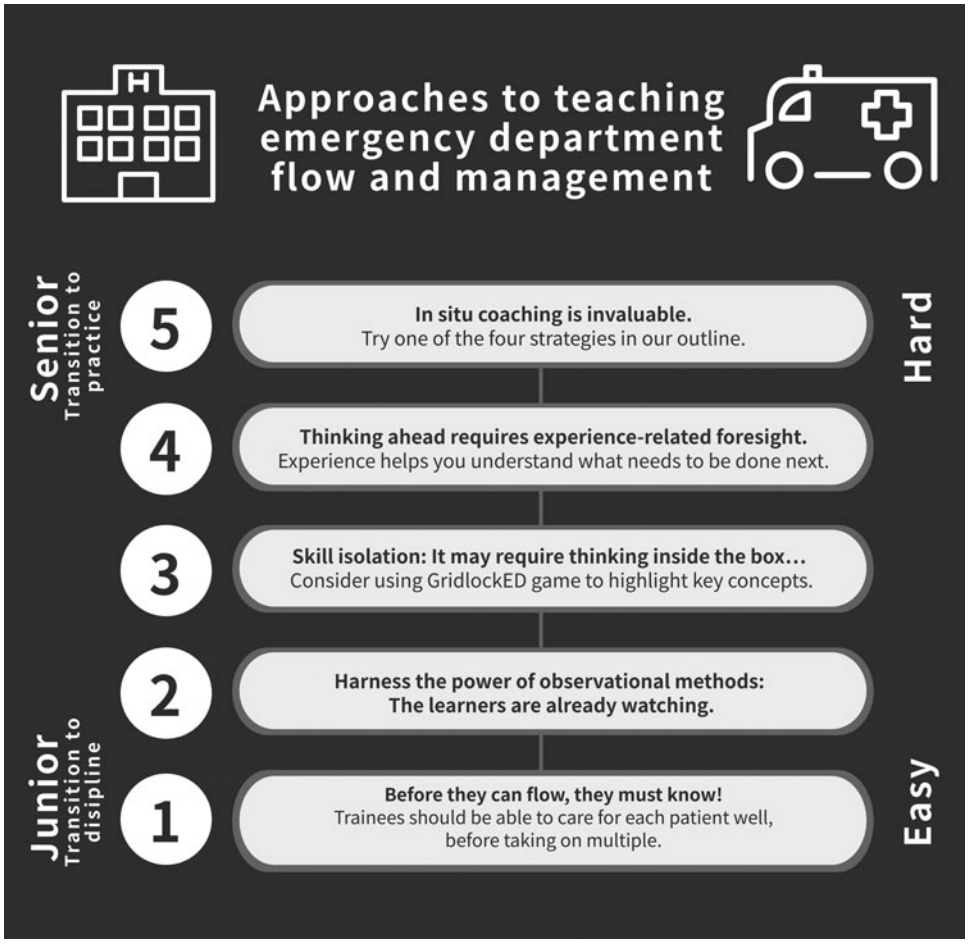

Figure 1. Approaches to teaching emergency department flow and management.

3. Thinking ahead requires experience-related foresight

Experience allows you to anticipate the care needs of your patients; off of a simple triage note, most experienced providers can create stories to anticipate their prognostic course and all the interventions they will need in the ED.

The difference between junior trainees and attendings in this regard is that, with increased clinical experience, comes the ability to generate fulsome "patient stories" (i.e., determining differential diagnosis, patient management plan, next steps), which allows them to parse patient data so that prioritization and comparisons can be made.[3]

Sit with your trainee and think aloud to them as you are doing the job, and then ask them to do the same in return. Not only does this create a shared cognition between the two of you, but your learner then gets to experience the cognitive apprenticeship that they need to learn.[2]

4. Skill isolation: It may require thinking *inside* the box… A *GridlockED* game box!

Not all instructional methods for teaching patient flow and ED management take place in the ED. Serious games are platforms that allow trainees to learn by means of game-like simulations. The *GridlockED* board game,[4] created by McMaster University emergency medicine educators, has construct validity evidence for teaching ED management.

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5. In situ coaching is invaluable

Here are four strategies from recent literature you might try in the ED on your next shift to coach with a more senior resident.[2,5]

- Strategy 1: Run the patient tracker together and discuss every case (briefly). Consider a brief walk-around. These steps help map out the scope of ED management. Ask the resident to explain their next steps.
- Strategy 2: Depending on patient volumes and the resident's ability, directly observe and audit the resident's workflow at the start and again after the first third of the shift. Provide feedback about their workflow, patient prioritization, and management decisions.
- Strategy 3: Assign the resident a section of the ED to manage. Periodically check in to support/debrief the experience.
- Strategy 4: Engage the resident in collaborative problem solving with a difficult-to-handle scenario with which you are wrestling (e.g., poor ED flow days, multiple incoming sick patients).

SUMMARY

The new Canadian EM specialist residency training requirements include direct observation assessments of a resident's ability to "manag[e] the emergency department to optimize patient care and department flow."[6] The figure summarizes the approaches we have highlighted. Required training experiences prior to transition to practice includes "independently managing patients, independently managing emergency department flow, providing expert consultation to other physicians or health care professionals, and supervising and teaching learners with indirect supervision from [the] attending physician."[5] The direct articulation of this competency to be learned and assessed requires EM educators and teachers to consider effective, efficient, and evidence-informed learning strategies. This article summarizes five such strategies. Of course, future innovation and scholarship is required to develop and validate new instructional methods.

Keywords: Competency-based medical education, emergency department flow, faculty development

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