Interruptions in the Emergency Department and the Myth of Multitasking

Andrew Grock, MD FAAEM (@AndyGrock) and Al'ai Alvarez, MD FAAEM (@alvarezzzy)

Think back to your last shift in the emergency department (ED). Likely, you were juggling and prioritizing the dozens of tasks that simultaneously needed doing — reading EKGs, ordering tests, evaluating the next patient, answering consultant callbacks, all while a patient's family waits to talk to you. During multiple high stakes encounters, were you, perhaps, interrupted once or twice...or more? Were they valuable interruptions such as a nurse notifying you of a decompensating patient? Or were they less valuable and perhaps not ideally timed? For example, I was once asked mid-intubation to change a stable patient's chest x-ray order from a portable to PA/lateral.

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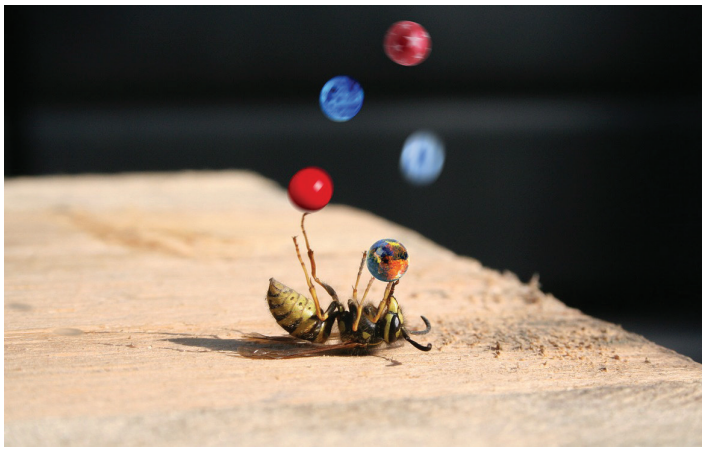
Interruptions are rampant in healthcare and have been shown to contribute significantly to medical error.[1] In the ED, evidence demonstrates that an interruption occurs about every six minutes[2] and can congeal into multiple back-to-back interruptions.[3] After interruptions, physicians often fail to return to the task at hand.[4] These interruptions likely have a significant effect[5] not just on the patients, but in the emotional and mental toll they take[6] on physicians struggling to incorporate them into an often hectic work environment. And interruptions can be costly.[5] As emergency physicians, we rely heavily on heuristics;[7] interruptions in our train of thought has significant effects as highlighted in Daniel Kahneman's book, Thinking Fast and Slow.[8] During high-stakes, high-pressure situations like donning and doffing during the COVID-19 pandemic, interruptions can also undermine physician safety—you forgot to actually check the seal of your respirator, the door was not completely closed, etc. In fact, face-to-face interruptions are the most common and disrupting form of interruptions.[9]

Now that we know interruptions lead to errors, what can we do about them? Two studies successfully decreased interruption rates by giving nurses specific, recognizable external signs[10] that they were preparing medications and thus should not be interrupted. The use of checklists[11] have also been shown to effectively keep on task. We can also learn from the business world.[9] Helpful strategies include the following: first is awareness. Knowing that interruptions can be dangerous is key. Create a space for interruptions; this means creating space for no-interruptions[4] including during teaching time, during sign-outs, during patient procedures, and especially during resuscitations. Discuss with key stakeholders the content and timing to minimize interruptions effect, and work on creating priorities specific to your workflow and practice.

As we address interruptions, it is also important to learn how to create boundaries — for patient safety, as well as your sanity, wellbeing,[12] and efficiency. Often, we struggle with creating boundaries because we tend to be kinder people, we want to please others, or we want to show others that we are capable of doing it all. The truth is, we can't. We are, in fact, serially uni-tasking.[13] To that end, being clear with our intentions is actually the kinder[14] way of dealing with others. It avoids vague expectations on who is doing what. It creates accountability and a closed loop communication. Often, success and failure depend on effective communication. Simply calling out interruptions as they happen cognitively reminds you that you are being interrupted and that you have to stay with your task at hand. This allows the interrupter the opportunity to escalate priorities versus return at a less impactful time.



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recommendation to pick up on medical error is to create a cognitive pause while writing every discharge instruction. During this pause, review the chief complaint, the workup ordered and results, and the discharge plan specifics in order to ensure two key goals — all dangerous etiologies have been appropriately evaluated and the patient's concerns have been appropriately addressed. This simple practice could potentially minimize errors such as missing critical results as well pending lab tests that make you and your patients vulnerable.

AAEM has issued a position statement to minimize interruptions in the ED: "by working on mitigating the timing and frequency of unnecessary interruptions, there will be marked improvement in work productivity, delivery of safe patient care, and overall well-being of clinical care teams in this dynamic work environment."[15] We pride ourselves with being able to task-switch fast and efficiently.[16] This does not mean we should tolerate harmful interruptions. We must appreciate the deleterious effects of interruptions, call it out whenever it is happening, and set boundaries and priorities. Only then are we able to truly focus on what is important--practicing safe, kind and sustainable medicine. ●

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