[NM-342] Pharmacy Lines as a Possible Cause of Medication Errors and Breaches in Patient Safety

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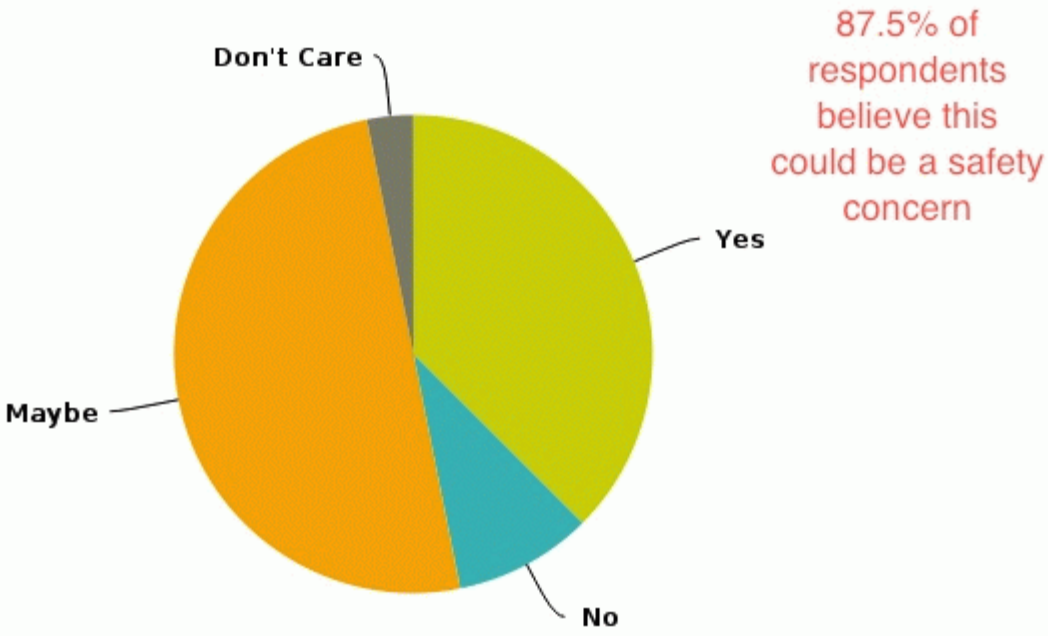
Introduction: Medication error is a well recognized patient safety concern. The Institute of Medicine (IOM) reported in 1999 that 98,000 deaths per year occur as a result medication error.1-2 One of the main causes of human error is haste.3 Error rates have been shown to be increased in health care providers in many situations, especially when rushed.4 We hypothesized that trainees at Seattle Children's Hospital (SCH) felt rushed in their morning medication preparation by the construct of the pharmacy schedule and that this could potentially lead to medication errors and lapses in patient safety.
Methods: We utilized Survey Monkey to create a thirteen question survey to evaluate if trainees felt rushed during their medication preparation secondary to time limitations dictated by pharmacy and lecture schedules. The Survey was sent via email to rotating residents from the University of Washington and Virginia Mason, fellows from the 2012-14 academic years, and CRNA's.
Results: We received 32 responses out of 72 recipients. The survey responses were distributed evenly amongst residents, fellows, and CRNA's. 94% of respondents experienced a line at the pharmacy window when trying to pick up their narcotics, regional anesthetics, and prepared drug infusions. 84% of respondents felt that this line put time pressure on them while preparing their medications.78% believed that this time pressure could lead to medication errors, and 87.5% of trainees believe that the current system is a safety concern.
Conclusions: Medication errors are a known patient safety concern. Our current process of medication preparation can lead to the high-risk behavior of "rushing" in the peri-operative setting, a known high-risk period for medication errors. Responses of current and past trainee's at SCH demonstrate that time pressure placed upon them, during medication preparation, could lead to increased medication errors and safety events. We are exploring a multi-faceted solution to this problem including modification of the lecture schedule, a change in pharmacy staffing, and possibly moving prepared medications to an Omnicell so that they can be obtained before the pharmacy opens for the day.
References:
1. Merry AF, Anderson BJ. Medication errors--new approaches to prevention. Paediatr Anaesth. 2011 Jul;21(7):743-53

2. Kohn LT, Corrigan JM, Donaldson MS, eds. To Err Is Human – Building a Safer Health System. Washington DC: National Academy Press, 1999.
3. Reason J. Human error. New York: Cambridge University Press, 1990
4. McDowell SE, Ferner HS, Ferner RE. The pathophysiology of medication errors: how and where they arise. Br J Clin Pharmacol. 2009 Jun;67(6):605-13

Q12 Overall, do you think the way we are able to pick up medications from pharmacy could be a safety concern?

Answered: 32 Skipped: 0



87.5% of respondents believe this could be a safety concern

Q7 If you were allowed to pick up your narcotic box/regional medications/infusions before 6:30 lecture do you think that would DECREASE the incidence of any of the following? (check all that apply)

Answered: 32 Skipped: 0