



# Drug Safety Review

## Distractions contribute to medication errors

The landmark Institute of Medicine (IOM) report released in 1999 shed light on the fact that system failures play a substantial role in contributing to medication errors. While that revelation came as no surprise to health-care professionals and human-factors experts, it was not as familiar to the general public.

System failures may encompass many factors, from design failures, including problems with a piece of equipment, to environmental factors, such as inadequate physical workspace. It can also encompass situational factors, including distractions, workload, and staffing levels.

According to data from the USP's MEDMARX medication error-reporting program, distractions are a significant and recurrent contributing factor that leads to medication errors. Almost 35,000 records submitted to the MEDMARX database from 1998 to 2002 cited distractions as a contributing factor leading to errors. Furthermore, distractions were most often reported for errors that occur during the drug-administering and drug-dispensing phases of the medication-use process (MUP).

According to MEDMARX, the most frequently reported types of errors for records listing distractions as a contributing factor include: omission, improper dose/quantity, and unauthorized/wrong drug errors.

Data from MEDMARX revealed that when comparing records list-

ing distractions with the historical, overall MEDMARX rank-order for types of errors, wrong-patient errors were reported twice as often (10.5% versus 5.2% overall). Prescribing errors, on the other

workers are the ones most often involved with errors associated with distractions: nursing personnel (55%), pharmacy personnel (32%), and physicians (7.3%). The data indicate that distractions are a bigger problem for nurses, who generally administer medications, and for pharmacists and pharmacy technicians, who are involved with drug preparation and dispensing, than for some other members of the health-care team.

### Suggestions for minimizing distractions\*

1. Conduct a Failure Mode and Effects Analysis (FMEA) on where and how distractions might negatively affect the prescribing, dispensing, and administering phases of the medication use process.
2. Place phones away from those selected healthcare workers who are actively preparing, dispensing, or administering medications.
3. Develop a pocket checklist for selected critical tasks (e.g., medication administration) that outline the steps that should be followed in that task. This will serve as a useful reminder when interruptions and distractions occur.
4. Conduct departmental and multidisciplinary educational sessions on the importance of teamwork and maintaining focus during critical tasks (e.g., avoid unnecessary conversation while compounding or administering medications).
5. Consider creating specific policies outlining when and where distractions and interruptions are unacceptable. Use visible Do Not Disturb signs in selected areas or for selected job tasks (e.g., IV compounding, cart fill, medication administration), and establish consequences for violations to the policies and/or signs.

\* Points 1, 3, and 4 were based on: Pape, T.M. (2002) "The Effect of Nurses' Use of a Focused Protocol To Decrease Distractions During Medication Administration" (Doctoral Dissertation, Texas Woman's University, College of Nursing; Denton, Texas).

hand, were reported less frequently (7% versus 12%) when distractions were listed as a contributing factor in the error event.

MEDMARX records show that the following types of healthcare

mg), mixed this amount with a small volume of normal saline, and administered the dose to the patient. The patient soon deteriorated and went into cardiac arrest, resulting in brain hypoxia and then death.

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