



Reducing at-risk behaviors

Part II: Patient safety should NOT be a priority in healthcare!

Last month we published part I of a feature on at-risk behaviors (*Patient safety should NOT be a priority in healthcare: Why we engage in at-risk behaviors*) in which we suggested that patient safety should be a *value* associated with every healthcare priority and activity, not a *priority* that can be rearranged based on changing demands. Unfortunately, human behavior runs counter to making patient safety a value because the rewards for risk-taking are often immediate and positive, while the punishment (patient harm) for risk-taking is often remote and very unlikely. As a result, even the most educated, diligent, and careful practitioners learn to master dangerous shortcuts and engage in at-risk behaviors. This month, we explore the system-based causes of at-risk behaviors and ways to reduce their occurrence.

System-based causes. At-risk behaviors often emerge because of system-based problems. Unnecessarily complex processes create conditions that foster the development of at-risk behaviors. For instance, nurses who must obtain medications from four different storage units—an automated dispensing cabinet, refrigerator, patient-specific bin containing pharmacy dispensed drugs, and a locked storage unit in the patient's room—are more inclined to gather all their patients' medications at one time and place them in a more readily accessible area, like their uniform pocket. Problems with technology are another source of at-risk behaviors. For example, if a nurse must back out of the electronic medication administration record (e-MAR) to access information about a particular drug or a corresponding laboratory value in an electronic database, he/she is more inclined to skip this step when behind in the administration of medications.

When patient harm results, we have a natural tendency to immediately focus on indi-

viduals who engaged in the at-risk behaviors. We are getting better at identifying the system-based causes of an event that promote at-risk behaviors. But too often, we overlook one of the most deeply seated roots of system problems—an organizational culture with a high tolerance of at-risk behaviors.

Culture tolerant of risk. To uncover whether your culture is tolerant of at-risk behaviors, ask yourself, "Does my organization tend to punish safe behavior, and/or reward at-risk behavior?"¹

Consider the following:

■ What's your reaction to a pharmacist who takes the time to fully investigate a "missing" medication request during the busy morning hours, especially when compared to another pharmacist who unquestioningly sends the drug to the requesting unit? What if you're the nurse waiting for the drug, or the pharmacy supervisor who now has to help enter the backlog of orders that resulted from investigating the "missing" medication? Would the efficiency of sending the "missing" medication quickly, without question, offer more positive reinforcement than fully investigating the reason for the missing dose, which might prevent a serious medication error?

■ How would you react to a physician who asks for help to locate his patient's MAR so he can make sure no medications have been accidentally discontinued on transfer? What if you're the nurse manager who must help find the MAR while managing other important priorities? What if you're the nurse who's using the MAR? Would the physician be appreciated more if he didn't try to find the MAR?


■ What's your reaction to a nurse who takes longer than most to administer med-

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Key points about at-risk behaviors

- Key stakeholders sometimes engage in at-risk behaviors, knowing on some level that it could risk patient safety.
- Key stakeholders include healthcare practitioners, the pharmaceutical industry, device and technology vendors, insurers, and others who directly or indirectly influence patient care.
- Even the most educated and careful individuals will drift from safe practices, master dangerous shortcuts, and engage in at-risk behaviors because the rewards for risk-taking are more immediate and positive than the potential for patient harm.
- These unsafe practice habits emerge because of system problems *and* an organizational culture that is tolerant of risk.
- A culture tolerant of at-risk behaviors is evident when there are more positive (e.g., time-saving, high regard of colleagues) than negative (e.g., harm) rewards for at-risk behaviors; and/or more negative (e.g., regarded as a slow worker by colleagues) than positive (e.g., regarded as efficient by colleagues) rewards for safe behavior.
- The most important step when at-risk behaviors are identified is not disciplinary measures but to uncover the conditions under which they occur and any upside down rewards that spur the behaviors.

safetywire

 **Greater than or less than?** The use of symbols to communicate information increases the risk of medication errors. They require the reader to translate what the user assumes will be the correct understanding of the symbol. Errors from the use of symbols result more often than you would suspect. A physician prescribed metoprolol for a blood pressure of 160/90 or higher in a patient with hypertension. It was to be held if the patient's heart rate dropped below 60 beats/minute. A pharmacist entered this order, and the following

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ications because he/she asks colleagues to independently double-check selected high-alert drugs before administration? What if you're the person who is asked to help while you have other pressing demands? Are the nurses who do not "bother" others praised and respected for their ability to "work independently and efficiently"?

■ Are the nurses who, without complaint, seem to accept the lion's share of new admissions greatly valued by their managers, despite the fact that corners must be cut in order to manage the workload?

■ Are your best (and safest) performers "rewarded" with extra work? Is the most vocal person about a particular safety problem "rewarded" with primary responsibility to fix it?

If you look closely at the behaviors where you work, you will find many examples in which practitioners receive positive rewards, attention, and prestige from coworkers and managers for engaging in at-risk behaviors, and negative rewards for safe behaviors.

Discipline is unproductive. You might believe the most convenient way to control at-risk behaviors is to create a policy and enforce it. However, using disciplinary measures for a policy breach will *not* result in a commitment to safety; instead, it serves only to remind the recipient of the top-down control, resulting in temporary behavioral changes. The solution is not to punish those who engage in at-risk behaviors, but to uncover the system-based reasons for their behavior AND decrease staff tolerance for taking risks.

Increase awareness. To improve safety, it's more important to *reduce* staff tolerance of at-risk behaviors than to *increase* their compliance with specific safety rules.¹ So the best place to start is to increase staff awareness of at-risk behaviors. Although perceptions of risky behaviors vary among people, you should be able to identify some common at-risk behaviors by analyzing error reports, especially sentinel events or near sentinel events where more information about causative factors is available. See Table 1 (page 3) for examples of com-

mon at-risk behaviors. For each at-risk behavior, a corresponding safe behavior should be readily apparent or documented. While staff who report errors may not divulge at-risk behaviors without prompting, keep in mind, risk-taking is not involved in all errors.

Learn what supports the behaviors. The most important step after identifying at-risk behaviors is to uncover the *upside down* consequences that lead staff to believe there are more positive than negative rewards for the at-risk behaviors. It is also important to look at the corresponding safe behaviors that are rewarded negatively. Of course, the purpose for this step is to reduce or eliminate the positive consequences for at-risk behaviors and promote positive rewards for safe behaviors.

Motivate through feedback and rewards. The next step is the most difficult: to align individual and group motivation with avoiding the undesired at-risk behaviors. Often, motivation is misdirected by an explicit or unspoken organizational priority for *efficiency* and *productivity*. These outcomes are often achieved by cutting corners that seem insignificant. It is possible to inadvertently reward risk-taking and underreporting of at-risk behaviors and errors when incentives are based solely on efficiency and productivity. If reporting an at-risk behavior or error makes someone (especially a group) lose a reward, underreporting results. So emphasis on specific behaviors that lead to patient safety will allow staff to feel more positive about identifying and reporting at-risk behaviors.

To start, consider asking all staff to document one at-risk behavior *and* one safe behavior each day, and the conditions under which they occurred. Collect and group these behaviors into categories that can be identified as antecedents that spur at-risk behaviors as well as safe behaviors. Once staff know the safe way to do something, and the organization facilitates these safe behaviors, practice is needed to make the safe behavior a habit and part of an uncompromised value system. Ongoing support, encouragement, recognition,

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directions appeared on the MAR: "Give for BP > or = 160/90 and hold for HR < 60." The nurse confused the "greater than" and "less than" symbols and administered metoprolol when it should have been held. The patient's blood pressure dropped precipitously. He was treated for hypotension and a cardiologist was consulted. In another case, an orthopedist wrote **COUMADIN** (warfarin) orders for several patients, intending to hold the dose if the INR was greater than 2.5. Confusing the symbols, he actually wrote, "Coumadin 10 mg. Hold if INR < 2.5." Without recognizing the error, both the pharmacist and nurse transcribed the order exactly as written and later held a warfarin dose for an INR of 2, even though it made no therapeutic sense. Additionally, after the physician began using the "greater than" and "less than" symbols correctly, a pharmacist accidentally typed the opposite symbol into the computer and another patient did not receive warfarin when it was indicated. Then a nurse misread the symbol and gave the same patient a dose that should have been withheld. All staff should write "greater than" and "less than" in text, not symbols, when prescribing or transcribing orders. These symbols should be on your organization's list of unacceptable abbreviations.



FDA alert: simvastatin and amiodarone.

Cholesterol-lowering statin medications can cause a variety of muscle problems, from myositis to fatal cases of rhabdomyolysis in which muscle fibers breakdown, releasing myoglobin into the bloodstream, which can lead to acute tubular necrosis and kidney failure. In August 2008, FDA released an alert (www.fda.gov/Cder/drug/InfoSheets/HCP/simvastatin_amiodaroneHCP.htm) about the increased risk of rhabdomyolysis in patients taking amiodarone and simvastatin (**ZOCOR** and generics) in doses greater than 20 mg daily. Simvastatin-containing products such as **VYTORIN** (ezetimibe/simvastatin) and **SIMCOR** (niacin extended-release/simvastatin) were also included in the alert.

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reward programs, and other positive regard, especially from peers, also go a long way. Be sure that everyone who meets safe behavioral criteria is rewarded. It's better for many to receive a small reward than for one person to receive a large reward.¹

Conclusion. Many healthcare organizations have made patient safety a priority that deserves their utmost attention right now. But priorities can easily shift, and once again, patient safety could take a back seat to other important dimensions of qual-

ity, leaving tragic patient injuries in its wake. Healthcare organizations must make patient safety a sustained *value*, never subject to compromise, and always driven by the ongoing quest to identify the system-based causes of errors and the at-risk behaviors that contributed to them. Such a quest could result in a vision of safety in which all healthcare providers truly know what it means to be accountable for safety.

Reference 1: Geller ES. *The Psychology of Safety Handbook*. NY, NY: Lewis Publishers; 2001: 33-49.

Table 1. Examples of at-risk behaviors

Information about the Patient and Drug
Preparing more than one patient's medications at one time
Not checking patient identification using two unique identifiers before administering medication
Prescribing/dispensing/administering medications without complete knowledge of the medication
Not taking the MAR to the patient's bedside when administering medications
Administering routine medications before pharmacy review of the medication order
Communication and Teamwork
Rushed handoffs with next shift/covering colleague
Not speaking up because of intimidation when there is a question or concern about a medication
Use of error-prone abbreviations/apothecary designations/dangerous dose designations
Illegible handwriting; writing over erroneous orders
Reluctance to consult others or ask for help when indicated
Product Labeling, Packaging, Storage, and Distribution
Removing medications from unit-dose packages prior to reaching the patient's bedside
Not labeling or poor labeling of syringes/solutions/bowls/other medication packages
Obtaining medication by "grab and go," not fully reading the label before dispensing/administering
Leaving medications at the bedside or in unlocked storage areas
Keeping unused medications from discharged patients to administer to other patients
Borrowing medications from one patient to administer to another patient
Failure to dispense medications in unit doses or patient-specific doses
Culture, Environment, and Staffing Patterns
Managing multiple priorities while carrying out complex processes (e.g., transcription, administration)
Admitting overflow patients to inappropriate units/areas
Sacrificing safety for timeliness
Failure to report and share error information
Staff and Patient Education
Disregarding patient's concerns about a medication's appearance, effects, or other expressed worry
Discharging patients without proper education and feedback about the medications to take at home
Inadequate orientation of new/agency staff
Lack of a structured and ongoing staff competency program related to medication use
Double-Checks
Overconfidence in colleague's work (failure to independently double-check thoroughly)
Not asking for a double-check of selected high-alert medications before dispensing/administration
Technology
Overriding computer alerts without due consideration/turning off technology alarms
Over-reliance on technology as a safety tool
Failure to fully engage available technology (workarounds; jury-rigging)

More examples can be found at: www.ismp.org/Newsletters/acute/acute/articles/AtRisk_behaviors.pdf.

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Despite a 2002 revision of the simvastatin label describing the increased risk of rhabdomyolysis in patients taking amiodarone, FDA has continued to receive reports of rhabdomyolysis when these products are taken together. Statins taken with other concomitant medications can also increase the risk of rhabdomyolysis: fibrates used to lower triglyceride levels (e.g., gemfibrozil [**LOPID**]); azole antifungals (fluconazole [**DIFLUCAN**], itraconazole [**SPORANOX**]); and macrolide antibiotics (clarithromycin [**BIAXIN**], erythromycin). Reviewing a patient's medication history upon admission can help identify patients at risk for this adverse reaction. Consumers also need to be aware of symptoms (e.g., cramps, pain, tenderness, stiffness, muscle spasms) associated with rhabdomyolysis and be reminded to contact their doctor immediately if symptoms occur.

Special Announcement

ISMP gains additional safety expertise.

Please join us in welcoming our newest staff members!

- **Lauren J. Denney**, RN, MSN, CNA, BC, is a new Medication Safety Specialist on our consulting team.
- **Arounsavanh Khemdy** joins ISMP as an Analyst and Research Assistant, supporting our work with medication error reporting systems.
- **Ann D. Shastay**, RN, MSN, AOCN, joins ISMP as Managing Editor of ISMP newsletters.
- **Stephanie S. Unger**, JD, is ISMP's new Business Development Manager, seeking partnerships to advance medication safety.
- **Lisa Shiroff** and **Sharon Dicker** are administrative assistants who help to coordinate office activities.
- **Michael J. Gorham** is a Market Development Representative for Med-ERRS, an ISMP subsidiary that provides safety testing services for the pharmaceutical and medical products industry.

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