



# ISMP Medication Safety Alert!® Acute Care ⚡

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## SafetyBriefs

**⚡ No extraneous information, please.** USP has finalized a standard that allows only cautionary statements intended to prevent life-threatening situations to be printed on drug vial caps and ferrules (the metal bands that hold the stopper to the vial). This area of the vial must remain blank if the medication contained does not need a cautionary statement. Thus, it prevents company logos, names, and other such information from being printed in this location. The new requirements are intended to make it more likely for doctors, nurses, pharmacists, and other healthcare practitioners to better see and act on labeling statements on injectable products. These labeling statements convey important safety messages critical for the prevention of life-threatening situations that may result from the misadministration of a product. According to FDA, manufacturers will need to provide a rationale to the agency if they want to include a cautionary statement in this location. Under the new requirements, other information will still be permitted elsewhere on the medication vial.



**⚡ Adding drug to hanging IV bag poses many risks.** We heard from a pharmacist recently who was met with resistance when he proposed a policy prohibiting the addition of medications to hanging parenteral nutrition solutions or IV bags of any type. We first wrote about risks associated with this practice in 1997. Besides the obvious infection control and drug compatibility concerns, some individuals adding drugs to IV bags may not recognize how important adequate mixing is to gain a uniform concentration of the drug in solution. Without proper mixing, instead of receiving an infusion over time, patients might inadvertently be subjected to a bolus of the drug that sank to the bottom of the bag. An experiment with potassium chloride concentrate injection, died blue with food coloring, easily demonstrates this problem.

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### Special Report: Patient safety at risk

## CMS 30-minute rule for drug administration needs revision

In our June 17, 2010 newsletter, we covered a precarious topic best known as the “30-minute rule”—a requirement in the Centers for Medicare & Medicaid Services (CMS) Conditions of Participation Interpretive Guidelines to administer scheduled medications within 30 minutes before or after the scheduled time (see pages 174-175 at: [www.cms.gov/manuals/Downloads/som107a\\_p\\_a\\_hospitals.pdf](http://www.cms.gov/manuals/Downloads/som107a_p_a_hospitals.pdf)). In our July 2010 nursing newsletter, **Nurse Advise-ERR**, we asked frontline nurses who are most directly affected by the 30-minute rule to weigh in on the issue by completing a short survey. And **WOW**, did they ever! More than 17,500 nurses responded to our survey, providing more than 8,000 additional comments (Table 1 on page 2), making it very clear that the issue is of great significance to nurses.

### Respondent profile and compliance rates

Almost half of the responding nurses work on medical/surgical units, and the other half work in critical care, telemetry, or specialty inpatient units. Most nurses feel that the 30-minute rule is unsafe, unrealistic, impractical, and virtually impossible to follow. Approximately three out of four respondents (70%) told us their organization enforces such a policy. Of these nurses, only five of every 100 (5%) were *always* able to comply with the policy, while more than half (59%) were *infrequently* or only *sometimes* compliant (Graph 1 on page 6). Why nurses find it difficult to comply with the 30-minute rule was expressed by many (Table 2 on page 3), including a nurse who sent a pragmatic yet eloquent account of a **Day in the Life of a Nurse** (Sidebar on pages 3 & 5).

### A new pressure to comply

The advent of electronic medication administration records (eMARs) has brought about additional pressure for nurses to administer medications within a required timeframe, as this technology can now easily detect and quantify all late drug administra-

tion if used as intended. On a paper MAR, nurses reported that they often just initial the medication entry or document the drug as being administered at the scheduled time, not the actual time; thus, “late” administration was not clearly identifiable. With eMARs, nurses receive visible cues—often the angst-provoking “red font” of a medication entry—if the drug has not been administered on time. Furthermore, bar-coding systems can track and report all late drug administration and link each occurrence to an individual nurse, which often requires an incident report and can lead to unwarranted disciplinary action. To avoid disciplinary action, many honest nurses admitted to documentation of drug administration at the scheduled time, not the actual time. Even the computer can be tricked.

### At-risk behaviors (shortcuts)

Many nurses commented that they felt the 30-minute rule set them up to fail by compelling them to take shortcuts to administer medications within the required time and pressuring them to perform like “med-pusher” robots rather than well-trained healthcare professionals who engage in critical thinking.

Among the at-risk behaviors presented in the survey (Graph 2 on page 6), removing medications from automated dispensing cabinets (ADCs) or other storage locations well before administration time, and gathering more than one patient’s medications at a time, were the most common shortcuts nurses took to comply with the 30-minute rule. Approximately 1 of every 10 respondents *always* takes these shortcuts, and 1 in 4 *often* takes these shortcuts. While nurses reported that technology such as ADCs has made medication administration safer, it has also slowed the process—standing in line, for instance, to obtain medications from ADCs. Thus, to comply with the 30-minute rule, nurses told us they often feel compelled to take shortcuts during medication administration.

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(In practice, potassium chloride should not be available on patient care units and should never be added to an IV bag already in use.) Until the bag is removed from the IV pole and inverted vigorously several times, the blue-colored potassium chloride will pool near the bottom of the bag where the IV set is attached. Long ago, the medical literature described severe hyperkalemia and even death that occurred as a result of drug pooling when additions of potassium chloride were made to hanging IV bags [1] Williams RHP. Potassium overdosage: A potential hazard of non-rigid parenteral fluid containers. *Brit Med J.* 1973;1:714-15. 2) Lankton JW, Siler JN, Neigh JL. Hyperkalemia after administration of potassium from nonrigid parenteral-fluid containers. *Anesthesiology.* 1973;39:660-61]. Also, without knowing exactly how much fluid remains in the container, it's not possible to identify what the final concentration of the drug will be in the solution once it is added to the remaining fluid, which in some cases might not be safe. The container would also be mislabeled unless the drug strength, contents, and fluid volume were revised on the bag label. For example, adding oxytocin (**PITOCIN**) to a hanging IV bag on a postpartum patient to control bleeding could lead to more than the expected amount of oxytocin being delivered. Without testing, no one knows for sure whether or not other drugs are at similar risk of pooling and putting patients at risk of an overdose.



**Correction.** In our July 1, 2010 issue, we incorrectly stated that methylene blue is used for both cyanide poisoning and methemoglobinemia. Since then we've heard from a few readers that methylene blue is an antidote for methemoglobinemia but not for cyanide poisoning. There are two antidotes available to treat cyanide poisoning: **CYANOKIT** (hydroxocobalamin injection) and **CYANIDE ANTIDOTE KIT** (Taylor/Akorn), which contains amyl nitrite inhalants, sodium nitrite, and sodium thiosulfate. Methylene blue is used to reverse the methemoglobinemia that occurs from excess use of nitrites in cyanide poisoning or when the antidote is given to patients in whom it is later confirmed that cyanide poisoning has not occurred, and they now suffer from unnecessary methemoglobinemia. We greatly appreciate the feedback we received from our readers.

### 30-minute rule

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Table 1. Excerpts of Comments from Respondents

Comments About At-Risk Behaviors
I don't think I know a single nurse on my floor who DOESN'T pull meds for all patients at the same time.
The most frequent steps skipped are checking the patient's identity and not reviewing meds with patients at time of administration.
It is a shame that we are rushing out of a patient's room without sufficient time to answer the patient's questions regarding the medications we are asking them to take.
I am currently being trained as a relatively new nurse and have been with various veteran nurses who pre-sign the MARS, prepare meds for several patients at one time, and then ask me to administer the meds they have prepared.
This rule prevents us from taking the time to question a dose that does not seem quite right.
I am in such a hurry that I sometimes override warnings on the eMAR without giving them proper thought.
I reschedule meds so that they are due when I am actually giving them.
We use a scanning device so it's documented "live time." Most of us get a duplicate patient band, scan it at the scheduled time, and save the wrappers to the pills; then, we give the medications when we have time.
I prepare several plastic cups of patients' meds and put them in different pockets to avoid a trip back to the ADC.
Before the CMS rule, I would complete an assessment of my patients and, therefore, know what their lungs sounded like prior to giving a diuretic or steroid, and understand their anxiety level before giving a scheduled anxiolytic.
Nurses are afraid of being written up so they do whatever it takes to get med administration done on time.
If anyone says they are not taking shortcuts, they are fibbing... I mean anyone, because I have seen them ALL.
Comments About Associated Errors/Harm
I am not sure any of us are actually aware of the real number of errors this rule has led to.
I personally know of 5 serious errors made due to hurried medication administration.
Pain meds are often deferred in light of time demands to administer routinely scheduled meds.
I prepared an IV med using the wrong dilution. I did not wait for pharmacy to send the missing dose because I was running behind on my morning med pass and did not want to fill out an incident report for a late administration.
In an eMAR, a new med popped up. The nurse, who was behind schedule, recalled seeing the order and thought, "Yeah, I checked the order," and gave the medication, but it was the wrong dose.
A nurse, trying to hurry, gave oral meds meant for a PEG tube via the patient's IV.
Nurse pushed IV medications faster than prescribed so she could RUSH to administer meds to the next patient.
A co-worker charted that she gave a medication, but she left it at the bedside intending to go back as soon as she was done administering medications to her other patients. The nurse was fired.
To save time, a high-alert medication was double-checked by two RNs as required ahead of time and then placed back into a locked cabinet. When the medication was due, the nurse pulled out the wrong drug and infused it.
Medications that have been scanned on time as scheduled have been left sitting in unlocked areas because the nurse was busy with another patient; the nurse forgot to go back to administer the medications.
Because I was in a rush to prepare and administer my medications, I ignored a call light. My patient who was using the call light experienced a fall, luckily without injury.
General Comments
Over the years, it has become more about how fast the nurse can get the job done than keeping patients safe.
Most often, the underlying task becomes the priority vs. using critical thinking to do what is best for the patient.
This policy has resulted in the need for those of us on the frontline to develop workarounds to avoid sanctions and medication error write-ups.
We are not working in a factory on an assembly line. We are dealing with human beings that need more than pills popped in their mouth before rushing to the next patient. I often feel I am being RUDE and viewed as not caring.
Nurses are falsifying med records, stating they gave a med on time, because they are afraid of getting in trouble for not giving the med within the allowed timeframe.
We don't believe that one size fits all for medication dosing or staffing ratios to care for patients safely. Why on earth would this type of rigidity make sense to anyone?
I don't get up and come to work to break rules, however we need to get the job done within the circumstances.
Unrealistic expectations like the 30-minute rule are a big source of nursing frustration and dissatisfaction. We are left with the choice of engaging in dangerous workarounds or risk disciplinary measures for trying to be safe.
Rules that don't work in the real world setting set nurses up to make errors, falsify records, or hide mistakes.
There are two choices—patient safety or compliance with this policy!!

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**Sidebar: A Day in the Life of a Nurse**

You asked how does strict adherence to the 30-minute rule create an opportunity for error? As a bedside nurse, I can tell you first-hand. But first, let me give you a little peek into what medication administration looks like on my unit.

First, many patients come into the hospital on multiple medications from home, meaning that it is not unrealistic to be administering 5-10 chronic medications per patient (in addition to administering pain medication, antibiotics, managing IV lines, etc.) during my 0900 medication pass time.

Second, medication administration does not happen in isolation of all other responsibilities and demands for my attention, despite efforts to minimize and eliminate interruptions during medication pass times. On a typical day shift, I have four patients. Many times I must wait in line for access to one of two automated dispensing cabinets (we are a 36-bed unit), especially during 0900 medication pass times. Then I must safely take out each medication while double-checking it against the electronic medication administration record (eMAR) for that patient. After that, I must find any medication that is not stocked in the automated dispensing cabinet (ADC). This can be in any one of four locations: 1) the patient's individual medication cassette, 2) the refrigerator, 3) the other ADC, or 4) in the pharmacy (e.g., a missing medication). I have to prepare a label for any medications that I need to draw up into a syringe. For IV piggyback medications, I must first mix them and then prepare a label.

Next, I travel down the hall with my eMAR and all the medications. Hopefully, when I arrive in the room, the patient is ready for me, water cup in hand, for her medications. I check the eMAR against the patient's armband and individually open each little packet of unit-dose medication, while explaining to the patient the medication, dosage, purpose, etc., and answer any concerns or questions. (I tease my patients that some of those little packets are "nurse-proof"—they can be so cumbersome to open.) Hopefully, I make it from the counter-top, where I opened all the medications successfully, to the patient without dropping anything or knocking over the cup. Then I watch as my 83-year-old patient takes ONE pill at a time, as I cautiously survey her every attempt to reach her mouth, so as to catch any medications that may fall out of her hand/cup and into the bed sheets or down her gown. Then I stop and take

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**30-minute rule** continued from page 2

About one-third of nurses reported documenting medication administration at the scheduled time and administering the medications earlier or later. About 15% also reported asking coworkers from a previous shift to prepare their patients' medications for administration during the first few hours of their shift. Nurses provided perceptive details regarding additional at-risks behaviors (Table 3 on page 4) they engaged in to comply with the 30-minute rule, including:

- Bypassing pharmacy review of orders and borrowing medications or preparing IV solutions on the unit to facilitate on-

time medication administration

- Administering medications before conducting a physical assessment of the patient and/or checking vital signs, lab values, weight, and allergy status
  - Rushing to administer a new medication before the MAR entry has been verified
  - Altering the drug administration schedule to the time the drug was actually administered to avoid late administration
  - Providing any approved reason for late administration (e.g., patient request) regardless of accuracy
  - Not documenting drug administration until later in the day to save time
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**Table 2.** Why Nurses Find It Difficult To Comply with the CMS 30-Minute Rule

Reason	Example
High patient load/polypharmacy	<ul style="list-style-type: none"> <li>■ Administering multiple medications to half a dozen patients or more</li> </ul>
Medication not available	<ul style="list-style-type: none"> <li>■ Pharmacy delay in dispensing medications/missing medications</li> <li>■ Awaiting pharmacy verification of order</li> </ul>
Interruptions during medication administration	<ul style="list-style-type: none"> <li>■ Phone calls (physicians, families, ancillary staff)</li> <li>■ Getting patients ready for the OR, caring for returning patients</li> <li>■ Answering patient questions about medications, medical care</li> <li>■ Admission, discharge, transfer in/out of unit</li> <li>■ Other patient care/emergencies</li> <li>■ Rounding with physicians</li> <li>■ Addressing call lights/alarms from equipment that require attention</li> </ul>
Meeting other patient needs while in the room	<ul style="list-style-type: none"> <li>■ Pain medications</li> <li>■ Bathroom assistance (fall precautions), incontinence care</li> <li>■ Refilling of water cup to take medications</li> <li>■ Educating patients about medications</li> <li>■ Repositioning, oral care, skin care</li> </ul>
Reviewing medications/indication/contraindications/patient assessment before drug administration	<ul style="list-style-type: none"> <li>■ Physical assessment, including pain, vital signs, breath sounds</li> <li>■ Lab values associated with medications</li> <li>■ Reviewing unfamiliar drugs, waiting for physician order clarification</li> <li>■ Follow-up on patient concerns about medications</li> <li>■ IV site assessment/gastric tube placement verification</li> </ul>
Time-consuming gathering and preparation of medications	<ul style="list-style-type: none"> <li>■ Hunting and gathering of medications from various locations</li> <li>■ Waiting in line at automated dispensing cabinets</li> <li>■ Crushing tablets/diluting liquids/reconstituting powders/mixing IVs</li> <li>■ Dose calculations</li> </ul>
Delays during administration	<ul style="list-style-type: none"> <li>■ Administering each drug separately via gastric tube/flush</li> <li>■ Administering each pill/tablet/capsule separately to elderly patients with difficulty swallowing</li> <li>■ Awaiting food/feeding of patient to administer drug with meal</li> <li>■ Multiple IV meds; waiting for one to infuse before starting the next</li> <li>■ Multiple eye drops that must be spaced and administered separately</li> </ul>
Drug administration schedules that don't match patient care needs or nursing workflow	<ul style="list-style-type: none"> <li>■ Standard medication times during busiest time of day</li> <li>■ Odd medication administration schedule based on when pharmacist entered orders (e.g., 2:04, 3:07, 4:29)</li> <li>■ Frequent standard medication times (7 a.m., 8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 noon)</li> <li>■ Constant schedule changes to avoid penalties for late administration</li> </ul>
Time-consuming documentation of medication administration	<ul style="list-style-type: none"> <li>■ Flowsheets, vital sign records, pain assessment records, narcotic documentation, MAR</li> <li>■ Documentation of reason for administering medications late</li> <li>■ Incident report required for late medications</li> </ul>



**30-minute rule** continued from page 3**Table 3.** At-Risk Behaviors and Errors/Near Misses Associated with the CMS 30-Minute Rule

At-Risk Behaviors Reported (Workarounds)	Examples Provided	Actual Errors/Preventable Adverse Events Associated with At-Risk Behaviors
Bypassing pharmacy review of orders or dispensing of medications to give medications on time	<ul style="list-style-type: none"> <li>■ Removing medications from an ADC via override</li> <li>■ Borrowing medications</li> </ul>	<ul style="list-style-type: none"> <li>■ Incorrectly prepared IV infusion (improper dilution) on the unit so it could be administered on time because pharmacy had not yet dispensed it</li> <li>■ Pulled the wrong drug with a look-alike name via override from an ADC</li> </ul>
Failing to check and verify new orders on the MAR to stay on schedule	<ul style="list-style-type: none"> <li>■ Administering a medication before the MAR entry has been verified</li> <li>■ Not checking for new orders before drug administration</li> </ul>	<ul style="list-style-type: none"> <li>■ Administered discontinued medications</li> <li>■ Administered a drug to the wrong patient when a new medication order appeared on the eMAR and was not verified; pharmacy had entered the medication into the wrong patient's profile</li> </ul>
Documenting administration at the scheduled time, but giving the medication early, or planning to administer it later	<ul style="list-style-type: none"> <li>■ With a paper MAR, just initialing the entry, suggesting the drug was administered at the right time, even though it was given later or earlier</li> <li>■ With an eMAR, charting or back-charting drug administration at the scheduled time, not the actual administration time</li> <li>■ Bar-code scanning medications at the correct time to give the appearance of being compliant, but giving the medication later or earlier</li> </ul>	<ul style="list-style-type: none"> <li>■ After documenting an IV antibiotic as given at the correct time, forgot to go back to actually administer the drug</li> <li>■ Nurse administered the next dose of a high-alert medication very close to the prior dose which was given several hours late but was documented as being given at the correct time</li> <li>■ Nurse charted medication administration at the time scheduled but administered it later, which led to inaccurately timed collection of blood for a drug level and incorrect dosage adjustment</li> </ul>
Altering the schedule to avoid late administration	<ul style="list-style-type: none"> <li>■ Revising the scheduled administration time to coincide with the late administration time to show an "on time" administration</li> </ul>	<ul style="list-style-type: none"> <li>■ Pharmacy made a dosing error when re-entering a medication order after the scheduled time had been changed to accommodate late administration</li> </ul>
Expedient documentation of reason for late or early administration to avoid triggering a report	<ul style="list-style-type: none"> <li>■ Giving any approved reason (e.g., patient request, sleeping, drug held, not available) for late or early administration</li> </ul>	<ul style="list-style-type: none"> <li>■ Omissions of critical drugs occurred when new nurses who could not comply with the 30-minute rule simply "held" the drugs and documented that reason to avoid late administration reprimands</li> </ul>
Not documenting drug administration until later in day to save time	<ul style="list-style-type: none"> <li>■ Not using the MAR at the bedside because it takes too long to stop and chart during actual drug administration passes</li> </ul>	<ul style="list-style-type: none"> <li>■ Administered a medication with the intention to document it later when the nurse had time; another nurse gave the same medication to the patient while the patient's nurse was off the unit</li> </ul>
Pre-pouring/gathering medications ahead of time for one or more patients to speed up the drug administration process	<ul style="list-style-type: none"> <li>■ Pulling medications for several patients and carrying them in pockets/MAR pockets until needed for administration</li> <li>■ Pulling all medications that are needed for patients during the day, and storing the medications in cups, medication trays with cards, patient cassettes</li> </ul>	<ul style="list-style-type: none"> <li>■ Gathered two patients' insulin pens and mixed them up, giving each patient the wrong type/dose</li> <li>■ Pulled morning medications from an ADC and placed in each patient's cassette drawer; another nurse did the same but placed one patient's medications in the wrong drawer; first nurse gave all the pulled medications to her patient, including the incorrect medications placed in the drawer</li> </ul>
Delegating medication preparation and/or administration to another nurse who is unfamiliar with the patient/medication	<ul style="list-style-type: none"> <li>■ Other nurses/prior shift pulling medications for busy nurse/early morning doses</li> <li>■ Asking nurse to administer medications that others have pulled/prepared</li> </ul>	<ul style="list-style-type: none"> <li>■ Asked a nurse to help administer medications to keep on schedule; nurse gave insulin without checking blood sugar; patient became hypoglycemic</li> <li>■ Administered the wrong type of insulin, which had been drawn up by another nurse and not double-checked</li> </ul>
Skipping important double-checks due to time constraints	<ul style="list-style-type: none"> <li>■ Avoid bothering other nurses during busy drug administration times to double-check medications, doses, calculations</li> <li>■ Not following up on patients' concerns about medications</li> <li>■ Rushing to administer drugs without verifying the patient's identity using two identifiers</li> </ul>	<ul style="list-style-type: none"> <li>■ Wrong dose calculated and administered; error might have been caught if nurse had sought out the required double-check, but everyone was trying to administer their medications on time</li> <li>■ Administered medications to the wrong patient after forgetting to verify identity using two identifiers due to rushing</li> </ul>
Bar-code scanning workarounds to speed the drug administration process	<ul style="list-style-type: none"> <li>■ Skipping bar-code scanning because it is time consuming</li> <li>■ Skipping bar-code scanning and manually entering drug administration on the eMAR so it reflects the correct time</li> <li>■ Listening for the scanner beep without looking at the screen to verify the correct medication</li> <li>■ Scanning from chart/extra bracelets and saved product labels at correct times, and giving the medications when able</li> </ul>	<ul style="list-style-type: none"> <li>■ Wrong dose given after the nurse scanned the medication label when the medication was due and administered it later, forgetting to give just half of the dose</li> <li>■ Nurse scanned medications quickly, just listening for a beep from the scanner, but did not look at the screen where an alert appeared; nurse administered the wrong drug</li> <li>■ Medications scanned "on time" but forgotten and never administered</li> </ul>
Unsecured medications and/or unobserved administration	<ul style="list-style-type: none"> <li>■ Leaving medications in the room for the patient to take/parent to give at the right time</li> <li>■ Pulling medications ahead of time and leaving them in a cup on table outside patient's room</li> </ul>	<ul style="list-style-type: none"> <li>■ Unattended medications left in patient's room missing when nurse went back to administer them</li> <li>■ Nurse scanned medications at the scheduled administration time, left them in the patients' room, but forgot to go back to administer them</li> </ul>
Not thinking critically about drug administration because rushing to administer medications on time	<ul style="list-style-type: none"> <li>■ Allowing medication administration to become a task-oriented process, with little critical thinking about patients and medications</li> </ul>	<ul style="list-style-type: none"> <li>■ Rushed and gave full tablet instead of half a tablet, one pill instead of two</li> <li>■ Administered insulin on time to ensure it would not be flagged on the eMAR; the breakfast tray came late and the patient developed hypoglycemia</li> </ul>
Administering medications to patients without patient assessment or adequate information about the drug	<ul style="list-style-type: none"> <li>■ Administering medications without checking patient's height, weight, allergy status, related lab/monitoring tests</li> <li>■ Not assuring that the medication makes sense for the patient based on indication and the patient's condition</li> </ul>	<ul style="list-style-type: none"> <li>■ Medications were hurriedly scanned and administered to stay on time; an allergy alert was overridden</li> <li>■ Medications given without time for assessment or review of lab values; an electrolyte supplement and antihypertensive meds should have been held</li> </ul>

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**A Day in the Life** continued from page 3  
her blood pressure before she takes her antihypertensive medications. Finally, I go back to my eMAR and document with my initials every medication I administered...and the TIME. On to the next patient, right? Oh, no—the first patient needs to use the bathroom (a 20-minute activity, as she is an elderly post-operative patient with a knee replacement, and I need to help her get up to use the bedside commode). But then again, that gives me the opportunity to assess the patient's strength and ability to follow commands, to scan and assess her skin, etc. I hope you are getting the idea that medication passes are time consuming, and that patients have other needs that I cannot ignore. I just gave you one very common scenario. Many more opportunities for distraction and interruptions occur that cause medication administration times to be delayed.

So where's the opportunity for error? The frustration at the whole process of medication administration causes distraction, one of the most frequent contributors to medication administration errors. The time crunch to administer medications within the 30-minute rule causes nurses to find workarounds...like pilfering another patient's cassette for a missing medication, documenting that the nurse gave a medication at 0900 (to keep in compliance and not get "caught" on audit) when it was really given at 1005, or withdrawing and preparing two different patients' medications at the same time to save time. Both patients are in a semi-private room... why walk down the hall, back and forth, twice? Just bring both patients' meds to the room at the same time! These are just some examples of a nurse's effort to "be in compliance" rather than do what is in the best interest of safety for the patient.

Giving nurses more flexibility for some medications and administration times, and educating us as to how/why these workarounds put our patients and our practice at risk is the answer. I hope this gives you some insight into the challenges of meeting the 30-minute rule.

**Editor's note:** This bedside nurse's commentary also gives insight into why physicians, pharmacists, and hospital leaders need to assist nurses in making medication administration as efficient and safe as possible (e.g., dispense liquids not tablets that need crushing for tube-fed patients, dispense unit dose syringes in the exact dose, provide on-time drug delivery, provide easy access to drug information). Still aren't convinced? Take some time to walk alongside a nurse one day. We're sure you'd be warmly welcomed.

**30-minute rule** continued from page 4

- Skipping important double-checks to save time during drug administration
- Skipping bar-code scanning because it is time consuming and results in documentation of late drug administration
- Scanning medications at the correct time using the patients' charts/extra identification bracelets, locking the drugs in a cabinet, and dispensing them when able
- Leaving medications in the patient's room and asking patients to take them as soon as possible
- Allowing medication administration to become a task-oriented process, with little critical thinking about whether the drug is indicated for the patient or the order for the drug is accurate and safe.

Not unexpected, but nevertheless alarming, one in four nurses (25%) reported making and/or observing medication errors in which attempts to comply with the 30-minute rule played a large role. Considering that a small percent of errors are recognized, detected, or reported in most organizations, the actual error rate associated with the 30-minute rule may be much higher. The most common types of errors reported by nurses include:

- Administering a discontinued medication, a whole tablet instead of half a tablet, one tablet instead of two tablets, or an entire ampul/vial of medication instead of a partial dose because the medications were pulled early and the patient's chart and/or MAR were not referenced for verification prior to administration
- Administering medications to the wrong patient because multiple patients' medications were gathered at the same time
- Omitting doses after pulling medications and/or documenting medication administration ahead of time and then forgetting to administer the drugs
- Administering duplicate doses because the nurse administering the first dose did not take the time to document administration until later in the day
- Calculating doses incorrectly and administering wrong doses because they are focused on administering medications on time and did not seek out another nurse to double-check the math
- Preparing IV solutions incorrectly on

nursing units instead of waiting for pharmacy to prepare and dispense them so that the solution can be started within the allotted time

- Administering IV medications more rapidly than recommended to administer all IV medications within the allotted time.

Table 3 (page 4) provides many more examples of errors reported by the nurses along with the at-risk behaviors that contributed to each.

#### Other concerns about the rule

More than 3,000 nurses (approximately 20% of all respondents) said they were aware that their organization had encountered Joint Commission or state surveyors within the past 5 years who required strict adherence to the CMS 30-minute rule. Although nurses have long been taught to give medications in a timely manner, many expressed anger toward CMS for the 30-minute rule in the Interpretive Guidelines; a few even questioned whether the rule was evidence-based. Nurses overwhelmingly stated that the rule was exposing patients to unsafe conditions and neglectful situations, particularly if nurses felt they did not have the time to assess patients before drug administration and prioritize their work based on patient needs rather than adhering to the rule. Numerous nursing instructors also commented that the 30-minute rule makes it difficult to teach students safe practice habits because the rule places undue priority on the timeliness of medication administration and not enough on safety.

As a last example, many nurses reported that attempts to meet the 30-minute rule interfered with their ability to be respectful of patients. For example, nurses felt pressured to administer medications to patients even if they were in the bathroom, getting bathed, or using a bedpan or bedside commode, just to ensure timely medication administration, which is often not necessary from a clinical perspective. Nurses also reported that patients feel rushed and unimportant when nurses hurry out of the room to administer medications to the next patient. Oftentimes, nurses cannot take the

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**30-minute rule** con't from page 5  
 time to educate patients about their medications, and patients' questions go unasked and unanswered, particularly when they perceive the nurse's hectic pace and don't feel permitted to ask questions.

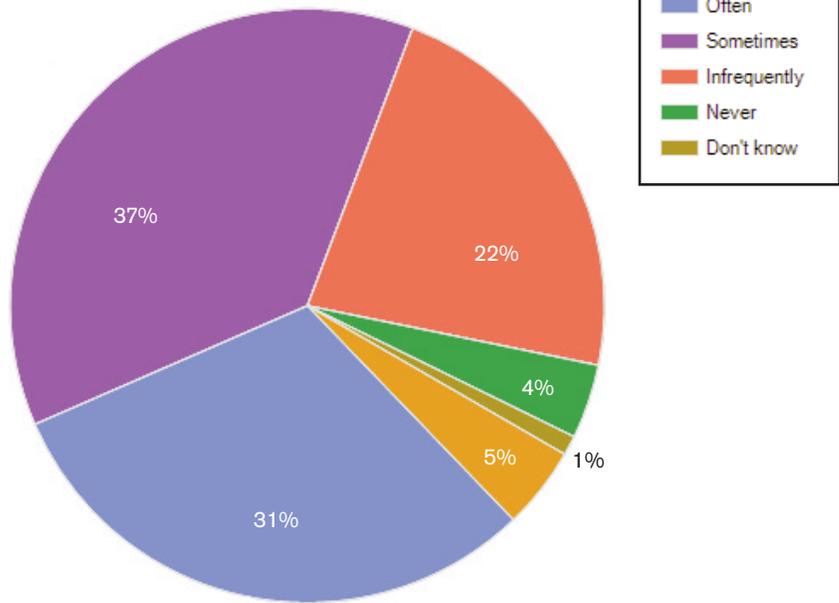
**Changing the rule**

The vast majority—up to 9 out of 10 nurses—who participated in our survey believe the 30-minute rule should be changed, with most (75%) opting for 60-minutes before or after the scheduled time for medications administered every 4 hours or less often. Approximately 1 in 5 nurses (20%) thought the 60-minute timeframe should be accompanied by more specific timeframes for certain drugs (e.g., antibiotic, insulin, antihypertensive), and another 22% suggested this option alone. Comments from nurses overwhelmingly suggest that they should be able to exercise clinical judgment and critical thinking to make exceptions to any rule when necessary—something many do not feel empowered to do with the seemingly sole emphasis on timeliness. Around 6% of nurses felt there should be no timeframe dictated. Many nurses commented that unsafe staffing levels make it impossible to comply with the 30-minute rule and suggest that compliance will only be possible if staffing and work conditions are improved.

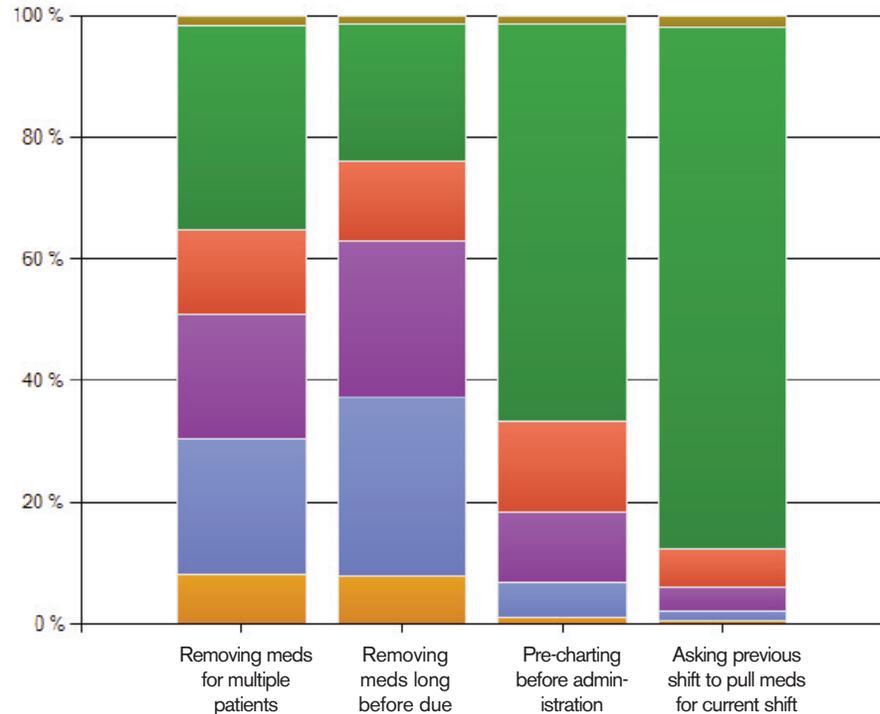
**Next steps**

Our survey has proved to be an excellent way to gain insight and convey the nurses' point of view about the 30-minute rule. ISMP has already initiated conversation with CMS staff and provided them with preliminary findings from the survey. As a result, we are happy to report that CMS staff has been receptive to the findings and agreed to take them under advisement. Based in large part on the findings from this survey, ISMP is currently working with an expert advisory group to document what we believe would represent best practices associated with timely administration of medications. We plan to publish our recommendations in this newsletter in the very near future. We thank the many thousands of nurses who took time to respond to our survey and provide comments. **We can assure all responding nurses that their voices have been heard!**

**Graph 1. How often do you feel you are able to comply with the CMS 30-minute rule when administering scheduled medications to your patients?**



**Graph 2. How often do you take these shortcuts in order to comply with the CMS 30-minute rule (and corresponding hospital policy, procedure and/or guidelines)?**



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