12 ways to prevent medication errors

Why do errors occur—and how can they be avoided? Three experts detail strategies your institution can adopt.

You're human, so you're going to make mistakes when you administer drugs. You can assume the doctors and pharmacists you work with will make prescribing and dispensing errors too.

What you may not have thought about is why medication errors occur and how they can be prevented. But we have. Put simply, we believe that errors result from knowledge or performance deficiencies (or both).

Suppose, for example, a new drug is marketed but not all nurses in the hospital know about it. The name of the new drug is similar to that of an older, established drug, so some nurses don't question orders for the new drug—they see what they're familiar with, not what they've never heard of, and assume the order is for the older drug. The possibility for error can be compounded by the doctor's poor handwriting or poor communication (as with a telephone order).

You can probably think of many reasons for knowledge deficiencies. For example:

- The pharmacists didn't send you the details about the new drug when it first became available.
- You've been too busy to keep up...
with your journal reading. And even if you have kept up, you may not know as much about the drug because pharmaceutical companies don't advertise as extensively (if at all) in nursing journals as they do in medical journals.

- You missed an important staff-development program about the drug, so you don't know enough about the drug or the procedure for administering it.

What about performance deficiencies? In most cases, they can be blamed on:

- interruptions, such as a ringing telephone or other nurses talking with you while you're trying to concentrate
- stress or fatigue
- poor working conditions (bad lighting, a room that's too hot or too cold, or a cramped work area)
- carelessness, working too fast or inefficiently, or intentionally avoiding proper procedures.

Here's a case in point. When Lodine (etodolac), a nonsteroidal anti-inflammatory drug, was first marketed, some nurses misread orders for it as iodine or codeine. They were no doubt unaware of the new drug (knowledge deficit) and were interpreting poorly handwritten orders (performance deficit).

In one instance, the nurse thought the doctor had ordered 300 mg of saturated solution of potassium iodide (SSKI) for his nursing home patient. Another nurse thought the doctor was ordering 30 mg of codeine—his handwriting was so bad that the usual Lodine dose of 300 mg looked like 30.

**Setting traps**

By having an error trap (also called a safety net) in place, you can stop medication errors from reaching patients. Some examples: reading container labels three times, knowing the five rights of drug administration, and having a second nurse check your work with certain critical drugs. These strategies trap errors before patients are injured.

Remember the problems with Lodine? One of the patients never received the wrong drug because the nursing home had two error traps in place: Potassium iodide had to come from a pharmacy, not from unit stock, and doctors' orders had to be
faxed to the pharmacy for interpretation. But the other patient received codeine instead of Lodine—the hospital didn't have a system to control the use of unit stock. When this happens, the error becomes an accident (an unplanned, unexpected, and unintended event). Accidents usually have adverse outcomes; they're what injure patients.

Generally, the more layers (error traps) added to the system, the safer the system and the less likely that patients will be injured. On the other hand, too many layers can make the system impractical. Each error-prone situation should be evaluated by an institution committee (pharmacy and therapeutics, risk management, or quality assurance, for example) so that the right number of layers are included for safety and efficiency.

Here are 12 error traps that can help stop errors from becoming accidents:

**Build in redundancies.** Hospital policy may require another nurse to check your calculations or a drug you've drawn up. This may seem redundant, but it decreases the chances that an error will become an accident. That's also true of the back-and-forth repetition with telephone orders. You may spend more time processing the order, but you're also likely to catch any errors in interpretation.

Consider these steps in the unit dose and intravenous (I.V.) admixture system:

- The doctor sees the patient and writes the order.
- The unit secretary reads and transcribes the order.
- The nurse checks the unit secretary's work.
- The order is sent to the pharmacy, where it's read by a pharmacy technician and entered into the computer.
- The computer checks for drug interactions, correct drug dose, drug duplication, allergies, and so on.
- The pharmacist reviews the technician's work and does a clinical screening.
- A copy of the order is sent to the filling area with a computer-generated label. The technician reads the label and compares it against the order sheet before filling the order.
- The pharmacist checks the technician's work.
- The nurse receives the drug and checks her record against what the pharmacist dispensed.
- The nurse administers the dose, first telling the patient the name of the drug, the dose, and so on, allowing him to be the final check.
- The drug cart is returned to the pharmacy. The technician checks it for doses that weren't administered, then follows up as necessary to prevent errors of omission.

This system provides maximum protection from accidents, as long as it's followed. The possibility of accidents increases if you borrow a dose from one patient to give to another, take an item from the unit stock instead of waiting for the pharmacy to deliver it, or otherwise bypass the system.

A fax machine also allows for redundancy, as noted in the Lodine example. In the past, nurses in nursing homes had to interpret new orders and phone them to the pharmacy. This could lead to problems, especially if the nurse wasn't familiar with a newly marketed drug or a rarely used one that had a name similar to that of an established drug. If she gave the wrong name to the pharmacist, the patient would probably receive the wrong drug. Now, in nearly all institutions a no-carbon-required form must be used or the nurse must fax the original order to the pharmacy so that she AND the pharmacist can interpret it.

Product design can also provide redundancies to prevent errors. For example, a blue box on the label of procainamide injection vials from Elkins-Sinn, Inc., used to list only the concentration, 500 mg/ml. But the vials actually contained 2 ml, or 1 gram, something many nurses didn't know. The new labels clear up the mystery by including the concentration per milliliter (500 mg/ml) and per container (1 gram/2 ml).

**Add a fail-safe system.** A product's fail-safe system can prevent tragic errors. For example, many electronic infusion pumps use an IV set with a gravity control clamp that shuts off the flow of the IV solution. But not everyone knows this clamp must be closed before the set is removed from the pump. And even...
those who do not always remember to close the clamp. So patients can be harmed by the accidental free flow of I.V. solution.

Many manufacturers of electronic infusion pumps have recognized or are beginning to recognize such knowledge and performance deficiencies and produce pumps that use I.V. sets with an automatic fail-safe clamping mechanism. Unfortunately, not all institutions can afford to invest in new pumps (and administrators may not understand the dangers of unprotected devices).

Here's another fail-safe idea: premixed I.V. drug containers that don't require activation, assembly, or preparation to obtain the dose.

Eliminate dangerous items and procedures. We recently heard that a patient drank 10% potassium hydroxide, a caustic solution used for fixing candidal hyphae for microscopy; he was supposed to receive oral potassium chloride 10%. Both were in prescription bottles and had pharmacy labels. But potassium hydroxide, which isn't meant to be taken internally, belongs in the laboratory, not the nursing unit.

Patients have suffered permanent brain damage or died when their nurses mistook liter containers of 5% sodium chloride injection for 5% dextrose in 0.9% sodium chloride injection or 23.4% sodium chloride injection for 0.9% sodium chloride injection. Some nurses have accidentally picked up a 1- or 2-gram prefilled syringe of 1% lidocaine instead of a 100-mg syringe and injected the contents of the larger-dose syringe into a patient, causing cardiac arrest and death. (The 1- and 2-gram syringes are no longer available, although your institution may still have them in stock.)

These accidents could have been prevented if items that weren't necessary for routine patient care had been removed from unit stock and replaced with acceptable alternatives.

How about the procedures you take for granted? Many calculations you perform, for example, should be unnecessary.

Suppose you work in a critical care unit. You wouldn't have to calculate doses in micrograms per kilogram per minute if the concentrations of many critical care drug solutions were standardized and charts with flow rates based on the patient's weight and desired dose were developed.

Removing unneeded I.V. lines (and labeling all lines that remain) can reduce the risk of an oral drug being injected I.V. A patient died when a kaolin and pectin mixture (Kaopectate) that was supposed to be instilled in his nasogastric tube was attached to his I.V. catheter. Similar errors have involved tube feedings, antacids, and reconstituted psyllium powder (Metamucil).

Limit use or access. Potassium chloride concentrate injection is one of the most dangerous drugs in a nursing unit, and it shouldn't be there. It's been used to reconstitute medications or flush I.V. catheters when nurses mistook it for look-alike vials of sterile water for injection or 0.9% sodium chloride injection.

In another incident, a nurse injected potassium chloride into a bag of solution that was already hanging, but she never removed the bag from the pole to shake it. So the drug pooled and her patient inadvertently received a potassium chloride bolus when the I.V. was restarted.

Many hospitals sequester dangerous drugs such as potassium chloride. They're available only in premixed I.V. containers, through the pharmacy I.V. admixture service, or through nursing supervisors or other experienced individuals who are permitted to obtain these drugs.

Institutions that don't have 24-hour pharmacy coverage may not limit access to the pharmacy. Sometimes, a nurse is allowed to enter the pharmacy after hours and obtain the ordered drug (illegal in some states). This can be a disaster. The more prudent approach is to provide a well-designed, collaboratively developed night drug supply in a locked storage area.

Hospitals can also use certification or privileging. For example, only specially prepared nurses would give chemotherapy drugs, only anesthesiologists or nurse-anesthetists would administer neuromuscular blocking drugs, and only nurses who've demonstrated the ability to do so properly would take doctors' telephone orders.
Through formulary control, as authorized by the medical staff, your pharmacists can limit the number of doses a patient receives by enforcing automatic stop orders, performing drug use evaluation studies, and promoting drugs with longer dosing intervals (for example, antibiotics that are given once a day instead of every 4 hours). The fewer doses, the fewer chances that the wrong drug will be used, that it will be prepared improperly, that it will be given by the wrong route, and so on.

Manufacturers could also rethink the way they package some dangerous medications. We believe these drugs should be difficult to open— for example, you would have to read the instructions or be familiar with the package to figure out how to open it. This would put the drug in the hands of only those nurses who have correctly identified it and know how to administer it.

**Avoid confirmation bias.**

Drugs with similar names or packaging shouldn't be stored next to each other. You might grab the wrong one because you tend to see what you're looking for and don't check for other information that would help you properly identify the drug. This is called confirmation bias.

For example, potassium chloride concentrate injection and 0.9% sodium chloride injection are both clear liquids in vials that are the same shape and available in the same volume. Patients have died when the two were mixed up (nurses relied on the shape of the vial or saw only “chloride” on the label). This error has been virtually eliminated—manufacturers of potassium chloride concentrate are now required to use black caps and vial closures imprinted with “must be diluted” in a contrasting color. Some older vials may still be available at your institution, though.

**Adopt “lock-and-key” design.** You can't fit the nozzle of a kerosene fuel hose into the gasoline tank receptacle of a car that uses unleaded fuel. The same principle can be applied to prevent medication accidents.

Liquids meant for oral use, for example, shouldn't be drawn into a syringe that fits the luer-lock connec-

tion of an I.V. line. Otherwise, sooner or later someone will try to inject the oral drug. Oral syringes for non-parenteral liquids are already available; needles and I.V. tubing can't be attached to their tips. Special catheter tips on tubing can also prevent enteral alimentation fluids from being injected I.V.

Lock-and-key designs could be useful (but don't currently exist) for other lines that are involved in medication errors, such as epidural catheters. The Association for the Advancement of Medical Instrumentation is currently developing standards that would address this issue.

**Use tactile cues and special packaging.** Remember when insulin vials had distinctive shapes—regular insulin in round glass containers, NPH in square ones, and so on? That helped diabetic patients with poor eyesight readily identify their insulin so they wouldn't use the wrong vial and inject too much or too little. Unfortunately, this system was discontinued with the advent of U-100 insulin. The Diabetes Division of the National Federation of the Blind is campaigning to reinstate the old system.

Keep tactility in mind when you're trying to improve a safety system. You might place strips of adhesive tape, raised shapes, or special figures on the tops or sides of containers to help patients differentiate medication from another. Some commercially available drug storage containers have similar tactile cues.

Unique packaging can help you too. Some neuromuscular blockers are now packaged in oddly shaped containers. The container for Atracurium (Tracrium), for example, is a hexagon.

**Place hazard warnings where they'll be seen.** As we mentioned earlier, vials of potassium chloride concentrate now have a “must be diluted” warning that's quite visible. Abbott Laboratories has just begun labeling its premixed containers of lidocaine on both sides of the bag. No matter how you turn the bag, you'll always know that it contains lidocaine. In the past, premixed lidocaine has been mistaken for D, W.

To add another layer of safety,
auxiliary warning labels can be affixed to particularly troublesome drugs. Some researchers believe red is the most vivid warning because it reminds people of blood (although this has never been proved), and certain words convey greater urgency: Danger is better than warning, which is better than caution, which is better than notice, which is better than nothing at all.

**Use technology.** Alarms on the equipment you use already warn of danger. For example, alarm systems on infusion pumps alert you that an infusion has stopped, that air is in the line, that the solution has infiltrated, and so on. Other alarms signal that someone has gained access to a restricted storage area, that the temperature of a drug storage refrigerator or freezer needs immediate adjustment, or that you’ve made an error when typing on the computer.

Computers can play an important role in preventing errors. Computer-generated medication administration records, for example, greatly reduce transcription errors (the nurse and pharmacist can check each other's interpretation of the order). Problems with interpreting handwritten drug orders are eliminated when doctors enter their orders into the computer. In the pharmacy, dispensing errors can be avoided by using computers that automatically screen for drug allergies, interactions, and duplicate or contraindicated therapies.

Other advances now being introduced in hospitals—such as bar coding, voice and handwriting recognition, and bedside terminals—can also help make dispensing and administering drugs more accurate.

**Follow protocols and procedures.** Protocols and procedures can limit the drugs and doses that may be used, establish monitoring parameters, provide treatment guidelines in case of an accident, and designate which nurses may administer certain drugs.

Here’s what happened when a hospital didn’t have a protocol for using the neuromuscular blocker pancuronium (Pavulon). The doctor wrote this order for an intubated patient on a ventilator: “Pavulon 2 mg IV. q2h p.r.n. agitation.” The patient did well and eventually was taken off the ventilator and extubated. But the doctor forgot to discontinue the Pavulon order.

A few days later, the patient became agitated after a disagreement with his wife. An inexperienced nurse noticed the Pavulon order on the medication administration record and remembered that in the past, patients had quieted down after receiving the drug. So she assumed it was a sedative—she didn’t realize it would paralyze all skeletal muscles, including those that assist in normal breathing. She prepared a Pavulon dose and gave it to the patient. Predictably, he went into respiratory arrest and suffered permanent central nervous system impairment.

This tragedy could have been prevented if the hospital had had a neuromuscular blocker protocol specifying that:

- a neuromuscular blocker couldn’t be ordered “p.r.n. agitation”
- the drug would be automatically discontinued when artificial ventilation was removed
- the drug had to be sequestered
- only certain nurses and doctors would be allowed to administer the drug
- the drug required a special warning label, such as “Danger: Paralyzing agent. Causes respiratory arrest.”

**Recognize the value of documentation.** Documenting on the medication administration record helps to prevent errors. That’s because you have the chance to check previous therapy, read any notes that apply to a specific patient, and see what occurred the last time the drug was given.

For example, suppose you’re about to give warfarin (Coumadin). After checking the pattern of therapy and prothrombin values, you believe the ordered dose would cause an overdose. You contact the doctor and learn that he wrote the order on the wrong chart.

**Provide education.** Education is obviously an important part of preventing medication errors. Knowing your patients, the drugs they’re taking, and why they need those drugs is vital. You could chain
FAILURE MODE AND EFFECTS ANALYSIS: DEALING WITH HUMAN ERROR

Industry has addressed the inevitability of human error through a technique known as “failure mode analysis” or “failure mode and effects analysis” (FMEA). This technique, a never-ending process of quality improvement, identifies possible or likely errors and gauges their effects.

The goal is to predict how and where systems that were designed to detect errors and alert staff might fail. If the potential effects of the errors are intolerable, action is taken to eliminate the possibility of errors or to minimize their consequences. The aviation, space, automobile, and chemical industries, among others, have adapted FMEA to their needs.

Every hospital needs a system like this for spotting error-prone drugs or procedures and heading off problems before they develop or get worse. We like FMEA because it takes the emphasis off blaming individuals and directs it toward recognizing a system that may allow an injury (not who allowed it to occur).

For each medication, the analysis asks what will happen if someone mistakes one drug for another; uses a drug in the wrong amount; gives it to the wrong patient, by the wrong route, at the wrong rate; omits a dose; and so on. The analysis might indicate that the error can be tolerated or will be intercepted by an error trap. But in some cases, steps must be taken to address potentially intolerable errors.

BY MICHAEL R. COHEN, RPh, MS, FASHP
President

JOHN SENDERS, PhD
Senior Consulting Scientist

NEIL M. DAVIS, RPh, PharmD, FASHP
Chief Executive Officer

Institute for Safe Medication Practices, Inc.
Huntingdon Valley, Pennsylvania

able, clinically significant opportunities for error.

Let’s use prefilled lidocaine syringes as an example of how this works. During a code, a nurse might have to identify a 100-mg prefilled lidocaine syringe from among the drugs on the crash cart, pick up the syringe, prepare it for injection, and inject the drug through the Y site in the patient’s I.V. line.

What would happen if she picked up a syringe with a different drug or a higher volume of lidocaine? Failure mode and effects analysis would look at the consequences if she completed the steps and injected the wrong drug or dose. If the consequences would be undesirable (in other words, the patient would die), steps would be taken to remove the alternative drugs, improve self-detection of the error, or prevent the actions from being completed.

To better explain this, let’s say that a 1-gram prefilled lidocaine syringe is on the crash cart next to the 100-mg syringe. Could the nurse pick that up by mistake? Yes. Could she activate the syringe? Yes. Could she inject it into the Y site on the I.V. line? Yes. What would be the consequences? The patient would probably die.

Here are the possible solutions arrived at through FMEA:

- Remove the alternatives. A 1-gram prefilled lidocaine syringe is used to prepare only large-volume containers, such as lidocaine 1 gram in 500 ml. So the 1-gram syringes could be removed from the crash cart and replaced by premixed lidocaine bags. This is the most logical solution—the only U.S. manufacturer of 1- and 2-gram prefilled lidocaine syringes recently stopped producing them.
- Improve detection. If your institution wants to use up its stock of these syringes, prominent warnings might be used to caution the nurse that she has a 1-gram syringe in her hand and that she must dilute it in an I.V. container before use. (But this may not be enough—these syringes already have warning labels, yet the drug has been accidentally injected directly into patients without dilution.)
- Prevent completion of the actions. The syringes could safely stay on the crash cart if the manufacturer redesigned them so that they couldn’t fit into the Y site. That isn’t going to happen now because the product has been discontinued.

We’ve identified other drugs that are candidates for FMEA, including oral hypoglycemics, insulin, chemotherapy drugs, electrolyte replacement drugs, narcotics, sedatives, theophylline, aminophylline, neuromuscular blockers, vasopressors, hypertonic saline, heparin, and concentrated dextrose solutions.

Certain error-prone procedures could also be analyzed, such as blood-donation collection, transmission of telephone and other verbal orders, use of electronic infusion pumps without automatic damping mechanisms, and administration of oral medication through a tube in patients who also have I.V. lines in place. This is an abbreviated list; we’re sure you can think of other situations that call for FMEA.

In fact, FMEA is a perfect fit for a hospital’s continuous quality improvement program. For example, a committee at Memorial Mission Hospital in Asheville, N.C., meets periodically to examine the steps in their drug system and determine what could go wrong.

A scale of 1 to 10 is used to rate three factors: the likelihood of an error occurring, the severity of the error if it did occur, and the probability that the error would be detected before it harmed a patient. With the results, the committee can identify potentially dangerous problems and brainstorm prevention strategies.
a drug reference book to your drug cart or store it where you prepare medications. You also need to be aware of your institution's protocols and procedures. This is accomplished through orientation and staff-development classes. Copies of the institution's policy and procedure manuals should be readily available too.

Minimizing the consequences

Sometimes, the system can't be changed and accidents could occur. The goal in this case is to limit the damage. Here are two examples:

- **Err on the side of caution.** Stocking the lower concentration of a drug can prevent serious injury. Suppose the doctor orders morphine, 4 ml/hour with a 2-ml bolus dose through a patient-controlled analgesia pump. (Morphine should be ordered in milligrams, of course.) Prefilled syringe cartridges of morphine come in two concentrations, 1 mg/ml and 5 mg/ml. The pump automatically defaults to 1 mg/ml.

  What if the 5 mg/ml cartridge is used and the nurse forgets to reset the pump? The patient would receive 20 mg of morphine per hour, with 10-mg boluses. That's too much for most patients to tolerate.

  What if the pump were to default to 5 mg/ml instead? If a 1 mg/ml syringe were used, the patient would receive an overdose. The damage would be limited: He would probably complain of pain, but he wouldn't suffer respiratory depression.

- **Reduce the amount of the drug available.** That means limiting the number of capsules, tablets, ampules, or vials or reducing the volume or amount of drug in a single container. Even if the wrong drug or container were chosen, the total amount that the patient could receive would be limited to a tolerable level.

For example, a few years ago several patients in a dialysis unit went into cardiac arrest when they were accidentally injected with 50 ml of lidocaine. They were supposed to receive mannitol, but lidocaine vials had been mistakenly stored in the mannitol bin and removed in error. But there's no reason for 50-ml vials to be in the dialysis unit. If 5- or 10-ml vials had been available instead, the possibility of a patient dying from an accident would have been eliminated.

Accepting errors

Errors will occur—they're part of human nature. If we accept this, we can work on devising error traps that will prevent some accidents, reduce the possibility that others will occur, and minimize the consequences when they do.

SELECTED REFERENCES


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2. Fill in your name, address, state(s) of licensure, license number(s), and Social Security number in the spaces provided on the answer form.
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TEST RESULTS MUST BE POSTMARKED BY JANUARY 31, 1995

Copies of answer form will be accepted.

NURSING '94, FEBRUARY
12 WAYS TO PREVENT MEDICATION ERRORS

C.E. OBJECTIVES After reading the preceding article and taking this test, you should be able to: 1. Identify knowledge and performance deficiencies that lead to drug errors. 2. Identify 12 error traps that reduce drug errors. 3. Identify detailed treatment procedures and system design features specific to the 12 error traps that reduce drug errors. 4. Identify how failure mode and effects analysis (FMEA) can identify and reduce drug errors.

1. Medication errors result from
   1. too many error traps in the hospital system.
   2. redundancies in drug administration policies.
   3. knowledge and performance deficiencies.
   4. too much documentation.

2. Performance deficiencies that lead to drug errors can be blamed on
   1. a failure to check hospital procedure before administering a specific drug.
   2. working too fast while preparing a drug.
   3. the pharmacist’s failure to send you an alert about a new drug.
   4. missing a staff-development meeting on drug errors.

3. An example of a drug error trap is
   1. reading a drug container label twice.
   2. knowing the four rights of drug administration.
   3. pouring your own medications from unit stock.
   4. having another nurse check your work.

4. Which feature should be included in a system that reduces medication errors?
   1. using a fax machine to transmit orders between the nursing home and the pharmacy
   2. cutting time in processing the order
   3. replacing people checks with computer checks
   4. using only licensed staff in the system

5. Which of the following should be corrected before it leads to a drug error?
   1. using premixed IV solutions
   2. using infusion pumps with IV sets that have an automatic clamping mechanism
   3. storing IV bags of 5% sodium chloride in the unit

6. Which of the following should be corrected before it leads to a drug error?
   1. having potassium chloride concentrate injection in the unit
   2. storing IV bags of 0.9% sodium chloride in the unit
   3. standardizing critical care drug solutions
   4. stocking drugs with labels that specify concentration per milliliter and per container

7. If you wanted to reduce drug errors by limiting use or access, you’d
   1. make sure that all potassium chloride solutions were clearly labeled.
   2. promote drugs with longer dosing intervals.
   3. designate one nurse to enter the pharmacy after hours.
   4. eliminate automatic stop orders.

8. If you wanted to reduce drug errors by limiting use or access, you’d
   1. require all nurses to attend a staff-development workshop on giving neuromuscular blockers.
   2. develop a night drug supply area away from the pharmacy.
   3. require all nurses to attend a staff-development workshop on taking telephone orders.
   4. eliminate the pharmacy’s IV admixture service.

9. If you wanted to reduce drug errors by improving design features on drug systems, you’d recommend that your institution purchase
   1. drug packages that can be opened easily.
   2. IV sets that use only gravity control clamps.
   3. drug packages that discourage confirmation bias.
   4. premixed IV drug containers that require activation.

10. What other design feature would you want in your drug system?
    1. insulin bottles with the same shape
    2. interchangeable luer-lock connections
    3. drug caps and labels in the same color
    4. raised shapes on the top of drug containers

11. Containers of potentially lethal drugs should have an auxiliary label that says
    1. “danger.”
    2. “caution.”
    3. “caution.”
    4. “notice.”

12. Which of the following statements about reducing drug errors is correct?
    1. The more error traps added to the drug system, the more likely that a patient will be injured.
    2. The more time you spend processing an order, the more likely that you’ll make an error.
    3. Computers can reduce transcription and dispensing errors.
    4. Calculating doses in micrograms per kilogram for each patient reduces dosing errors.

13. Which of the following statements about FMEA is correct?
    1. It’s based on the fact that human errors can be eliminated.
    2. It’s a technique that’s applied to the drug system, not to a specific drug.
    3. It detects weaknesses in the system but doesn’t identify the consequences.
    4. It focuses on system errors rather than on blaming individuals.

ANSWER FORM: PREVENT MEDICATION ERRORS

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