

Medication Safety Patient Post Test

- 1, A medication error is defined in policy by Sharp as:
 - a. A failure for a medication plan to be completed as intended or the use of a wrong medication plan to achieve an aim.
 - b. The wrong execution of the prescriber's order which is always correct
 - c. The care provider's act of questioning the prescriber about an order when it seems possibly inappropriate for the patient, respecting allergies, other meds, condition, etc.
 - d. Conferring first with a fellow care provider when there are concerns about an order, instead of just carrying it out as ordered

2. High Risk Medications are those associated with an above average risk of adverse drug events (ADEs) and deserve our greatest vigilance to use safely. As defined by Sharp and posted in medication rooms and on Sharpnet Pharmacy site for reference, High Risk Medications include:
 - a. Milk of Magnesia, normal saline, insulin, cefazolin (antibiotic commonly used pre-op)
 - b. Heparin, insulin, acetaminophen (Tylenol), hydrocortisone cream
 - c. Warfarin, chemotherapy, insulin, heparin, opioids (e.g., HYDRomorphone)
 - d. Viagra, Zyrtec, insulin, chemotherapy, opioids.

3. "You can't improve what you can't measure." It is very important to report medication errors and harm which occur despite our best efforts so we can work together to prevent recurrences. Appropriate ways to handle a medication event include:
 - a. Don't tell the patient unless he starts to ask questions, keep the event to yourself, continue with normal operations, and commit to never letting the error happen again.
 - b. Confer with your fellow healthcare providers about how to prevent recurrences. Only submit a QVR if you can't come up with ways to prevent recurrences on your own.
 - c. It is never appropriate to submit a QVR unless a very serious event has occurred.
 - d. First take care of the patient, then inform the physician, document the event in the medical record, and complete a QVR on Sharpnet including what YOU think would prevent such events

4. "Make it easy to do it right and hard to do it wrong." Sharp continues to invest in medication safety technologies which reduce or even eliminate the opportunities to commit a medication error. These include:
 - a. Alaris smartpumps with Guardrails safety limits/alerts, Cerner computerized prescriber order entry
 - b. Pyxis computerized medication cabinets and PARx bar code scanned stocking of Pyxis cabinets
 - c. 3-D Pyxis cabinet and Cerner screens, radio frequency identified unit dose tablets and capsules, cohort care provider near field communications, and gravity facilitated easyopen glass medication containers
 - d. a and b
 - e. b and c

5. The entire process of medicating our patients consists of 11 stages formally defined in Sharp policy and California law, including everything from obtaining the medication, ordering it, preparing and dispensing it, to administering and monitoring it. The responsibility for this process belongs to:

- a. Pharmacy, because these are all medications
- b. Nursing, because they are administering all these medications
- c. Prescribers, because they are ordering all these meds
- d. Information Technology, because they provide the computer systems by which we order and manage all these meds
- e. ALL of the above, plus other care providers and the patients and their families

6. Opioids are strong pain relievers which can depress breathing in excessive dosages or in unusually susceptible patients. It is critical that we dose them correctly.

HYDROmorphine (Dilaudid) is FIVE times more potent than is morphine on a mg per dose basis, i.e., 1 mg of HYDROmorphine is as powerful as 5 mg of morphine. We can prevent serious dosage errors with HYDROmorphine by:

- a. Realizing that if we accidentally give 5 mg of HYDROmorphine when 5 mg of morphine was actually ordered, we're accidentally giving a HYDROmorphine dose equal to about 25mg of morphine.
- b. Denying an ordered dose of HYDROmorphine to a patient and waiting until he is in the most extreme pain and really needs it
- c. Realizing that HYDROmorphine and morphine are NOT the same drug and should never be used interchangeably; they require separate orders
- d. a and c

7. One of the most common causes of medication errors is the failure to communicate the patient's medication history across the stages of the continuum of care. Proper medication reconciliation consists of interviewing the patient, care partner, or care provider, and determining and documenting:

- a. Prescription medications dosages, time of last dose, route of administration, and purpose.
- b. NON-prescription over the counter and alternative or herbal medications, with the same details as in item a.
- c. History of any medications to which the patient experienced adverse effects, especially determining whether they have limited the use of that medication, e.g., severe allergy versus mild stomach upset, etc.
- d. Appropriately documenting all of the above information in the medical record as a future point of reference throughout the inpatient stay and at discharge.
- e. All of the above

8. U-500 insulin is very highly concentrated, five fold higher than the routinely used U-100 insulin normally used and stocked in care areas. It is useful in rare cases when a diabetic patient requires very high daily insulin dosages, e.g., over 200 units per day. Sharp has implemented the following practices to prevent U500 being confused with the commonly used U100 insulin:

- a. A new system wide U-500 insulin policy and procedure

- b. Pharmacy will never dispense a U-500 insulin multi-dose vial outside of Pharmacy to a patient care area where it could too easily be confused as being a U-100 vial
- c. Pharmacy dispenses U-500 ONLY as patient specific, ready to use doses in syringes
- d. Two nurses are required to perform independent verification when administering U-500 insulin
- e. ALL of the above

9. Medication administration routes should never be mixed up. As an example, a medication that is appropriate ONLY for spinal (e.g., epidural) administration can be fatal if ever given at that concentration intravenously, e.g., epidural bupivacaine infusions. Infusion line reconciliation is an effective, quick, and easy way to ensure medications are infusing to correct patient access routes and consists of:

- a. Holding onto a single piece of IV drug line, start at one end, and slide your hand along the tubing to the other end, at the patient
- b. Confirm medication label/line to Alaris pump, drug names should match
- c. Always trace a line from the patient to the point of origin before connecting any new device or infusion medication
- d. Line tracing should be performed at change of shift or upon receipt of patient from another department, after any patient transport event, before connecting any new infusion device or medication, prior to attaching label to tubing that identifies the medication infusing.
- e. All of the above

10. The Alaris smartpump system includes a Guardrails medication library with Sharp defined dosage limits and alerts to end users when limits are reached during programming, potentially intercepting programming errors. Ways to maximize this technology's value in preventing injectable medication errors include:

- a. Using Guardrails mode whenever possible, and NOT Basic Infusion which lacks any dosage error interception or alerting functionality.
- b. Contacting an experienced co-worker or pharmacist, or consult the Sharpnet Alaris website for help when a medication is not readily found in the pump library. Users can request Pharmacy to add any missing medications to guardrails.
- c. Never using temporarily extremely high infusion rates (e.g., 500-999 mL/hr) to give a bolus dose when the "BOLUS" button is visible on the Alaris programming screen.
- d. Pharmacy, Nursing, and IT continuously working together to ensure that Cerner and Alaris consistently use the same medications, concentrations, names, dosage units, etc. Contact Pharmacy whenever this is NOT the case.
- e. All of the above

11. Which of the following statements about the importance of reporting errors is TRUE:

- a. Reporting errors will help guide institutional process improvements to prevent recurrences
- b. By reporting harmless errors we can correct system failures before they recur and harm patients.
- c. Reporting errors as they occur can help mitigate harm and immediate corrective actions can be implemented

- d. Reporting errors that have already occurred can help in Root Cause Analysis (RCA) and identify system causal factors for correction
- e. All of the above are TRUE statements

12. Which of the following statements about Alaris Guardrails is FALSE:

- a. Guardrails contains dose calculations and alerts that will alarm when you have exceeded a safe dose or duration limit
- b. Using Basic Infusion mode will provide dosing limits protection and helps catch programming errors
- c. Guardrails is a drug library within the Alaris pump which contains dosing limits specific to care areas, e.g. OB, Specialty Units, Oncology
- d. All statements are true

13. Medication bar code scanning can detect which of the following errors before they can reach the patient?

- a. Wrong IV Push medication volume, e.g., mL
- b. Wrong label on the IVPB, e.g., a Zosyn label was stuck onto a cefepime IVPB
- c. PRN dose of HYDROmorphone is intended to be given but is scanned against a scheduled (non-PRN) dose on the MAR
- d. All of the above
- e. NONE of the above; the person performing the bar code scanning must be vigilant and detect these errors to prevent them from reaching the patient.