#109 - Medication Errors [1]

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Medication Errors

Course #109

2 contact hours

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This is NOT the Florida Required course.

(The Florida Required Course is #104, preventing medical errors)

Upon completion of this course the reader will be able to achieve the following objectives:

1. Define what are medication errors
2.

Recognize high alert medications

3. Understand importance of reporting errors

4. Factors that contribute to medication errors

5. Understand the five rights of medication administration

What are medication errors?

Medication errors are mistakes in the administration of drugs to patients.

Medication errors can have serious results for our patients. Medication errors can cause pain and suffering, treatment delays, loss of income, and higher medical bills.

Healthcare workers are also affected. It is an experience that can cause guilt, anxiety and self-doubt.

Most medication errors can be easily avoided by double checking and being very careful as medications are administered.

You can reduce medication errors by making certain:

- You can read the doctor?s orders
- You check the drug against the medication administration record
- Make certain you are giving it to the right patient
- Always question any dose that seems too high or too low.

Your efforts will lead to greater patient satisfaction, and greater patient safety. You will experience greater job satisfaction by knowing you are practicing safely and efficiently.

Medication errors can occur:

1. When orders are not taken off properly, and carried out correctly.
2. Orders are incorrect.
3. Orders are not carried out at all.
4.

Orders are unclear.

Lets take a deeper looker?..

When orders are not taken off properly, there can be many problems associated with medication errors. Many drugs look alike in name, or sound similar to others with a completely different purpose and effect.

Errors can occur if a ward clerk takes off medication orders. Make certain that a nurse is double checking all orders against the physician orders to prevent a transcription error. If you are ever in doubt?.check it out !!!

Incorrect orders can include ordering the wrong drug, or the wrong dose.

This can also be a particular problem if the person has a known allergy, and it is not noticed before the drug is ordered or given.

When an order is not carried out, this is a medication error. Orders that ?fall through the cracks? can be a serious problem to the patient in need of the medication.

Unclear orders are a big problem that causes a lot of confusion. Confusion over what the order says often results in giving the wrong drug, or the wrong dose.

All medication errors should be reported.

All medication errors should be taken seriously!

When orders are not carried out properly, this also creates a medication error, such as giving the right drug to the right patient, but giving it at the wrong time.

Suggestions To Prevent Errors

Beware of look alike and sound alike drugs- match the drug?s indications with the patient?s diagnosis to prevent this common occurrence.

One of the biggest liabilities and challenges for nurses is that we have a license to protect. One of the big problems is that the physician orders the medication, the pharmacy fills the prescription, and the nurse administers the drug.

Why is this a problem?

This is a problem because there are several opportunities for an error to occur. The error can begin with the doctor prescribing the drug, or the pharmacy can make a mistake in filling the prescription.

But it does not stop there?..

The next liability falls on the nurse. Nurses have a lot of responsibility in ensuring that medications are given correctly. If a patient has a reaction, the nurse can be held liable because ?they are the one who gave the medication?. Don?t be mislead that all nurses are held liable for all errors. This is not really the case. Doctors can and do face liability as well when wrong medications are ordered. Pharmacies are also to blame at times for errors. The point is, that nurses must be mindful to what is being administered. Nurses should know to check out

anything that does not seem right. Nurses should be aware of the complications associated with potential adverse reactions from drug interactions. So, if the doctor prescribed the drug correctly, and the pharmacy filled the prescription properly, and the nurse gives the medication which in turn causes harm to the patient, then the nurse can be held liable for this error.

Nurses are most likely to be blamed for medication errors because they are involved at the administration level. Remember that medication errors are complex and are rarely ever the result of one person?s actions.

Statistical data suggests that when medication errors occur they can be broken down as follows:

35% of errors occur in the prescribing phase.

45% of errors occur in the nurse administration phase.

20% of errors occur in the pharmacy dispensing phase.

Nurses today are faced with a tremendous amount of added responsibility, increased patient loads, and lack of sufficient staffing.

With the increased workload and responsibilities, there are increased opportunity and chances for more medication errors to be made.

Verbal orders a very high source of errors. When a nurse takes a verbal order, it is increasingly possible to interpret the wrong drug or dosage, making the liability greater on the nurse who ?heard wrong? or ?wrote it wrong? as an order. Of the 45% of errors made by nurses, approximately 20% of these are due to verbal orders being taken incorrectly.

Suggestions To Help Avoid Errors

- Beware of look alike drugs and sound alike drugs
- Match the drugs indication with the patient?s diagnosis
- Maintain competency in drug delivery devices. No delivery device is safe unless the nurse can use it safely and properly.
- Use a system of double checks. Check concentration, flow rates, and drug to be given.
- Organize the workflow- working in a cluttered place, poor lighting, noise and interruptions make the preparation tasks more difficult and error-prone. (we all know that in the real world, these are a common occurrence and cannot be avoidable a lot of the time) Therefore, we have to know how to work in an environment that is conducive to providing safe patient care despite the environmental factors that are distracting)
- Educate the patients- encourage them to ask questions.
- Listen to your patient- sometimes they can be the last line of defense to avoid an error. Many are very aware of what medications they are receiving. Let?s look a few examples: If a patient says something like, ? I have not taken a pill that looks like this before? or ? I usually get only two pills in the morning? (and you have more than two in the medication cup) DO NOT GIVE THEM THE MEDICATION until you go back and check it out. They may in fact be right, and avoid a potential error before it occurs.
- Healthcare professionals should remain educated and up to date on new medications. Invest in a good drug book and have it

accessible on the job. Nurses are not doctors, and we are not pharmacists. We can?t be a ?walking PDR?, but we can be educated and knowledgeable to look up what we don?t know.

- Promote error detection and correction to uncover a problem before it reaches the patient. Honest reporting of errors helps all health care professionals to devise changes in the system that are a potential problem.

COMMON CAUSES OF MEDICATION ERRORS

Table Provided By Dana, 2001 and Fagan 2001

Cause Description Example

Lack of knowledge of the drug	**The nurse has insufficient knowledge of the indications for use, available forms, correct dose, appropriate routes, adverse effects, toxicity, and compatibilities of the medication**	**Rapid infusion of vancomyacin causing a hypotensive episode**
Lack of information about the patient	**The nurse is unaware of a vital aspect of the patient?s condition**	**Administering insulin without knowing the patient?s blood sugar**
Forgetting and memory lapses	**Errors in which the nurse knew the rules and is not able to explain the error**	**Missed doses of medication or duplicate doses of medications**

Transcription errors	Errors in the ordering or verification process	Writing 50 units of insulin vs. 5 units because the ?u? looked like a zero
Faulty interaction with other services	Problems communicating with others when transferring between services	Changes in Vancomyacin dose (related to peak and trough) not reported to a nurse
Faulty drug identity	Errors in identifying the drug that results in patient getting the wrong medication	Confusion with drugs that sound alike. Celebrex Vs. Celexa
Faulty dose verification	Failure to ensure that the proper dose was given or dispensed	Hanging the same IV twice in a row, when two different IV medications were ordered alternately
Infusion pump and delivery system failures	Errors in setting up the infusion pump, confusion between central and peripheral lines, accidental tubing disconnections	Infusion of TPN through a peripheral line instead of central line. Overdose of medication from pump not set correctly

Inadequate monitoring	**Failure to appropriately adjust the dose of medication because of necessary monitoring. (lab values, vital signs) not done or ignored**	**Physician not notified of critical lab values such as prothrombin time for a patient receiving coumadin**
Drug stocking and delivery problems	**Late or missing deliveries of medication to the patient**	**Medications or IV meds not delivered in a timely manner**
Preparation Error	**Errors in calculating and mixing drugs that result in incorrect dose**	**Incorrectly prepared mixed insulin dose**
Lack of standardization	**Administration errors resulting from non-standard concentrations, dosing schedules, or infusion rates.**	**Heparin for IV flushes available in 1,000 units/ml and 10,000 units/ml**

Other Things To Consider

Abbreviations: When using abbreviations, stick to the standard abbreviations that all are familiar with. Illegible or confusing handwriting and communication failure often contribute to errors involving abbreviations.

Examples of some problem abbreviations include:

- Handwriting a ?u? for units. It can be mistaken for a zero.
- Handwriting ??g? instead of mcg. The ?? ? can be mistaken for am M, and could be incorrectly interpreted at mg instead of mcg.
- Watch for leading decimals and trailing zeros. The use of trailing zeros such as 2.0 instead of 2, or the use of a leading decimal point, as in .2 instead of 0.2 are very dangerous practices. It is easy for a nurse to miss the decimal point and make an error that is TEN TIMES incorrect.

Remember that ?covering up? an error is unacceptable. You put your patient, yourself , your license, and your organization on the line when reporting of errors are not done.

Adverse event and error reporting is the professional and ethical responsibility of the nurse. Reporting ?near misses?, even though no actual harm was done, is also very important to report.

In the past, healthcare professionals have used the personal approach of:

? Aim, Blame, Shame, and Retrain?

That approach is not working. This is why the requirement of medical errors training has come about. We can learn from mistakes. A whole new approach is needed to not blame the individual making the error, but to look at systems that will improve and prevent the error from reoccurring.

The Five Rights

We all remember ?the five rights? from nursing school. However, they are always worthwhile to review.

1. The right drug- read and reread the medication order and the drug label. When your facility changes drug vendors, take time to get familiar with the new labeling and markings. Be cautious of drugs that look alike and sound alike. When taking verbal orders, ask the physician to spell out the name of the drug. Some manufacturers have even changed the names of drugs to prevent confusion. (Example: Losec to Prilosec, so as to not confuse it with Lasix)

2. The right patient- Be careful of name alerts, or patients in the same room with same first name or similar last name. Place name alert stickers on charts and MAR?s as needed. Identify patient by name band if unfamiliar with the patient. Confused patients may answer to any name. Example: Do not ask a patient, ? Is your name ____?? (a confused patient may say ?yes? with no comprehension to who they are.) Pictures are helpful in LTC facilities. They need to be updated periodically though, because as they become sicker, gain weight or loose weight, the picture may no longer resemble the resident. These concepts are a particular concern if you work for a staffing agency, or if your facility utilizes agency nurses unfamiliar with the patients.

3. The right dose- The use of decimals and trailing Zeros, (as discussed earlier.) Take into consideration weight and age when deciding if

dose is appropriate and should be in question. If ever in doubt, call the doctor. Clarify any order that is unclear. If you have to make a drug calculation, ALWAYS have a second nurse double check your calculation. Get familiar with the normal doses of medications and invest in a good drug book.

4. The right route- If the route is not specified, never assume it is oral.. It must be clarified. If a patient?s condition warrants a new route (ie: can no longer swallow pills, and requires liquid form) a new order must be written to reflect the change. If a liquid is used in place of oral, do not put in a syringe that could be mistaken for IV route. Spell out ?intravenous? and ?international units? so there is no confusion to IV&IU. Make sure all lines are labeled and dedicated for their purpose.

5. The right time- Medications should be given on time. Medication should not be given any more than one hour before or one hour after the scheduled time. The right time should be scheduled around manufacturer?s recommendations of with food or on an empty stomach. If a medication cannot be given on time, document why.

In addition, the patient has the RIGHT TO BE EDUCATED and the RIGHT TO REFUSE.

Right to be educated- Inform the patient what the medication is for and potential side effects to be aware of that may need to be reported.

Right to refuse- This is not a medication error, but does need to be documented as a refusal on the MAR. It should be documented in the medical record as well.

Remember that if a patient refuses, it is not an error? but if the nurse leaves it at the bedside, and the patient throws it away, then it is a medication error.

MEDICATION CHECKLIST

BEFORE

- Patient?s name band checked or patient identified before given?
- Medication checked against MAR before giving?
- Medication is right route?
- Drug/drug and drug/food allergies observed?
- Medication prepared immediately prior to administration?
- Pulse or blood pressure checked if indicated?
- Privacy respected (drapes with NGT, g-tube)
- Nurse aware of reason for med?

DURING

-

Medication correctly crushed or not crushed as directed, if needed?

- Calibrated measuring devices when needed?
- Liquids measured at eye level?
- Medication diluted if indicated?
- NGT or G-Tube flushed before and after administration?
- Liquids shaken? (unless contraindicated)
- Oral inhaler used properly?
- Tablets or capsules not touched by hands while preparing?
- Medication given within one hour of scheduled time?
- Medication given with milk, water or antacid if indicated?

Practice the ?Three Time Check?

Read the label when you first get the medication

Read the label when preparing the medication

Read the label just before giving the medication

If you make a mistake

ACCEPT RESPONSIBILITY

Report any error to your supervisor. Take steps to correct the situation right away.

HELP DETERMINE THE CAUSE

This helps improve medication policies and procedures, and helps reduce future errors.

FORGIVE YOURSELF

No one is perfect. Most healthcare professionals have had at least one experience with a medication error.

Help educate the larger medical community.

There is an anonymous hotline, where errors can be reported to help health care professionals, drug manufacturers and others to learn from mistakes.

You can report to the USP Medication Errors Reporting Program, operated in cooperation with ISMP (Institute for Safe Medication Practices) Reports are made and retained in confidence, and used for statistical data and error research. www.ismp.org [4]

Summary

Medication errors can be prevented if we take the added necessary steps to be more mindful of what we are doing. Those few extra minutes, that ?we don?t have? can save a patient a lot of grief and/or potential harm or even death. Remember, ?If in doubt, check it out.? Practice safe, and practice Smart. The rewards will go along way in protecting your patients, and protecting your self from liability. Your efforts help ensure that patients get the medications they need--- safely!

References:

Mosby Drug Reference, 2003

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Springhouse Nursing Manual

2002, Springhouse, Pennsylvania

Institute for Safe Medication Practices

1-800-23-ERROR

www.imsp.org [5]

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