Medical Errors for CNAs & HHAs

Purpose: The purpose of this course is to provide CNAs and HHAs an overview of medical errors in today’s health care system and what certified nurse’s aides and home health aides can do to prevent medical errors.

Objectives
1. Demonstrate familiarity with the definition of “medical error”
2. Be able to identify three different types of medical errors
3. Be able to identify three factors which contribute to medical errors
4. Be able to identify the most common type of medication error in children

What is a Medical Error?
A medical error is when a patient’s plan does not work out as predicted or if an incorrect plan was implemented. Medical errors are typically not related to one person – but they can be. More commonly errors occur because of the complex system that makes up American health care. Errors are not a result of bad people, but a bad system. None-the-less, there are many things certified nurse’s aides (CNA) can do to prevent medical errors.

The Problem
- The United States has the 37th best health care system in the world (1).
- Medical errors contribute to the United States’ poor health care ranking.
- Over a two-year period, 238,337 potentially preventable deaths were attributed to medical errors (2).
- Top-performing hospitals were 43 percent less likely to make a medical error that the lowest rated hospital (2).
• A recent study on hospital errors showed that if the worst performing hospitals performed as well as the best performing hospitals than 220,106 incidences could have been prevented and 37,214 deaths could have been prevented. This would have saved the health care system approximately 2 billion dollars (2).

• It is estimated that 1.5 million people are admitted to the hospital and 100,000 deaths occur every year because of adverse drug reactions (3).

• The total cost of medical errors is an estimated 17 to 29 billion dollars per year (3, 6).

• In a study of Medicare patients over three years, 1.1 million errors occurred and cost the Medicare program 8.8 billion dollars (2). Medical error rate was found to be 3 percent of all Medicare patients (2).

• The Institute of Medicine estimates that 44,000 to 98,000 Americans die each year by mistakes in the hospital (6).

• In the nursing home, the rate of adverse drug reactions is 9.8 per 100 resident-months with almost half of these being preventable (7).

• Another study looked at 18 nursing homes, which showed 546 medication related injuries. One death, 31 life-threatening events, and 208 serious injuries occurred. In addition, there were 80 near misses (11).

**Key Definitions**

Medical errors are mistakes that doctors, nurses, nurse’s aides or other staff members commit. These mistakes either hurt the patient or place the patient at
risk for harm. For example, if a CNA forgets to turn a patient as ordered and the patient develops a pressure ulcer than a medical error has occurred.

An incident is any event that could have or did harm a patient or staff member.

An adverse event is an unexpected event in response to a medical procedure or medication. For example, if a patient develops diarrhea after taking an antibiotic.

A sentinel event is any event that results in a serious injury or death. For example, if a patient falls out of bed, lands on their head, develops bleeding into the brain and dies would describe a sentinel event.

Types of Errors

Medication Errors

Medication errors are mistakes related to medications. More than 7000 deaths occur each year related to medications (3).

Medication errors occur at many different places along the medical continuum. The error could occur at the level of the prescriber: did he/she prescribe the drug correctly? If the medication is called in to the pharmacy: did the person who called it in, call it in correctly? If a written prescription is turned in to the pharmacy: was it legible and interpreted properly by the pharmacy? Was it filled correctly at the pharmacy? Did the patient take it correctly?

As you can see there are many places that medication errors can occur.

Admission errors

Admission to the hospital is a common place where errors occur. Patients are often admitted to the hospital by a physician who is unfamiliar with his or her past
medical history. Therefore, the admitting doctor often relies solely on the patient’s report of medications when prescribing medications that the patient will take in the hospital. If the patient does not provide an accurate list of medications then he or she will not get all of the medications necessary to keep their body in balance.

Key point

CNAs have a key responsibility to encourage patients to keep an accurate list of all currently taken medications and medical diagnoses.

**Discharge errors**

Errors on discharge are common. When being discharged from the hospital the patient receives discharge instructions including a list of medications. It is important to assure that this list is complete and accurate. Oversights and omissions occur even with the best-intentioned health care providers (3).

Follow up appointments can get missed after discharge. Discharge instructions should include a scheduled appointment with the health care provider or a number to call to set up that appointment. This point needs to be reinforced. This can mean the difference between life and death. New medications are often started in the hospital and require outpatient monitoring to assure they are not only effective but also not causing any life threatening complications.

**Example of an error on discharge**

Lucy, a fifty-six year old female, is being discharged from the hospital after a heart attack. While in the hospital it was determined that her heart attack led to
heart failure (an inability of the heart to pump out adequate amounts of blood).

She was placed on a number of new medications for her heart. Two weeks after hospital discharge, her husband could not wake her up. The cause of death was cardiac arrest secondary to high potassium level.

She was supposed to have a follow up appointment with her cardiologist one week after discharge, which she did not know about. The nurse who discharged her from the hospital did not highlight this point on the discharge sheet, even though it was written.

If she had this appointment it is likely that her high potassium level would have been diagnosed and her medications adjusted so the level would not have risen so high as to cause cardiac arrest.

Organizational errors

Work schedules contribute to errors. CNA shortages often necessitate CNAs picking up extra shifts or working a double shift.

When healthcare providers are tired and fatigued, they are more prone to make mistakes. This time crunch may contribute to medical errors.

CNA shortages often lead to working short staffed. When working short staffed, errors are more likely to occur as CNAs are rushed and do not have adequate time to get their work done.

Surgical Errors

Errors in the operating room are a common cause of error. Common errors include:
• Operating on the wrong body part
• Leaving something in the patient
• Break in the sterile field – which increases the risk for infection

Diagnostic Errors

CNAs are not as commonly involved in diagnostic errors. These are errors that involve incorrect diagnosis, misinterpretation of lab tests or incorrectly interpreting an x-ray or another diagnostic test.

Cause of Errors

Fragmentation is the use of multiple medical specialists or medical systems to care for one individual. It is a large contributor to errors. Information does not always follow patients – there is no one place that knows all about one patient’s health. One doctor caring for all of a patient’s medical needs is not the norm in today’s health care setting. Fragmentation leads to duplicate medications and services – a common cause of medical errors.

Fragmentation goes beyond just seeing different doctors. It includes the use of different pharmacies and hospitals. When a patient goes to get a medication filled at a pharmacy, it is important for the pharmacist to know what other medications the patient is on so interactions can be monitored for.

Example of Fragmentation

Joan is a 56 year-old female who goes to a local hospital’s urgent clinic when she came down with a urinary tract infection. The doctor at the urgent clinic prescribed trimethoprim-sulfamethoxazole (Bactrim DS) for 7 days (this is an antibiotic). While this is a reasonable treatment; she died six days after starting
the antibiotic.

She got the prescription filled at the hospital pharmacy, which was not her regular pharmacy. She went to a doctor who was not her regular doctor. She did a poor job at conveying her medical history. She forgot to mention that she was on warfarin (Coumadin). Warfarin is a blood thinner used to prevent clots. A strong interaction occurred between her warfarin and the Bactrim – leading to an extreme thinning of her blood causing a stroke.

Was this a medical error? Yes. But, whose fault was it? Hard to say with this limited information, but likely a combination of four factors: the doctor not taking a good history, the pharmacy not taking a good history, the patient not conveying a good history, and the decentralized health care system.

Poor communication between the specialists is commonplace and one specialist often has no idea what the other specialist is doing. Sometimes because health care providers are moving too fast, or have other things on their mind, listening to their patients is neglected. Good listening requires that the health care provider listen fully and hear their patient. In addition to listening, health care providers need to communicate information accurately and simply.

The speed of health care contributes to medical errors. Health care takes place at a rapid rate. Doctors are seeing a large volume of patients each day, pharmacists are filling a large number of prescriptions each day, and nurses and CNAs are often caring for more patients than they should. Health care workers need to work fast to meet the demands of administrators, patients and the
financial bottom line. Unfortunately, when working at high rates of speed the risk of errors is increased.

**Lack of knowledge and human factors** are another common cause of errors. It is impossible to know everything in health care. Everyday health care providers are faced with situations where they do not know the answer. Sometimes decisions are made, without knowing for sure if the answer is correct.

Health care providers do not always follow recommended guidelines. Not providing recommended care to patients has the potential to lead to death and disability. For example, if the physical therapist recommends that a person walks with a cane and the CNA gets the patient up without the cane and then there is a fall – this is an error. Whether it is from lack of knowledge or just forgetting to do it; it is an error.

Human factors that contribute to errors include: sick health care workers, overworked health care workers and individuals who use poor judgment.

The **environment** can cause errors. Many environmental factors can contribute to errors. These include: poor lighting, equipment failure, excessive noise and excessive clutter in the workplace.

**Tips to Reduce Errors**

**Tips for CNAs to Reduce Medication Errors**

- Patients who are on antibiotics who have diarrhea should have this immediately reported to the nurse.
• Patients who are on blood pressure medications – especially if it was recently started or if a dose was adjusted – should have any dizziness or unsteadiness immediately reported to the nurse.

• Patients on pain medication who exhibit any confusion or unsteadiness should alert the nurse.

• Be aware of common drugs that cause errors. These include: blood pressure medications, pain medications, narcotics and blood thinners.

**Tips to reduce errors in the surgical setting**

• Make sure all patients are wearing identification bracelets and always check the bracelet before performing care on that patient.

• Do not wash off any marking made by the doctor that may indicate a surgical site.

• Make sure the patient follows orders to not eat or drink before surgery.

• Report any dressing that is soiled, smelly or falling off.

**Tips to prevent Falls**

• Identify high risk fall patients with some sort of marking, such as a colored bracelet, and make sure these patients are assisted when walking.

• Assure adequate lighting.

• Make sure stairways are locked.

• Make sure the environment is free of clutter

• Make sure that proper footwear (non-skid shoes/slippers) are used when walking.

• Report any change in behavior to your supervisor.
Tips to prevent pressure sores (common problems in the nursing home and hospital)

- Keep patients dry – frequently check for any incontinence.
- Change position of patients who cannot do it themselves at least every hour.
- Observe the skin for any sign of breakdown. This may include open areas to the skin or reddened areas – especially in areas of pressure such as on the buttock or heels.
- Talk to you supervisor about using special equipment in high risk patients such as an egg crate mattress, air mattress, wheelchair cushions or heel protectors.

Tips to reduce errors – environmental changes

- Make sure all equipment is working properly.
- If any equipment is not working properly – immediately report it to your supervisor.
- Make sure there is adequate lighting. Consider the use of a night light at night.
- Assure staffing levels are adequate – if you feel you are understaffed – tell a supervisor.
- Place non-skid strips in the bathrooms and in the shower/bath.
- Make sure there are working smoke detectors.
- Know the emergency fire plan for your facility.
- Frequent hand washing can reduce the risk of infections.
Tips to prevent errors by charting

- Documenting is a great way to reduce the risk of errors. It provides communication to other staff members and provides protection to the health care provider in law suits.
- Write legibly.
- Do not use abbreviations – if you do, make sure they are approved abbreviations. All organizations have a list of approved abbreviations. If you are not sure write the whole word.
- Make sure you are taught adequate documentation. If not talk to your supervisor.

Preventing errors in the outpatient setting

- Use electronic charting to prevent inability to read handwritten notes.
- Patients should be encouraged to ask questions (see Table) and take notes on any new drug prescribed by the doctor. The more informed the consumer is the less likely an error will occur.

Questions for patients to ask prescribers about newly prescribed medications (3)

- What is this medicine for?
- Does my age affect the dose needed to treat me properly?
- Are there any restrictions with this drug? For example, could this make me drowsy so I should not drive after taking the drug?
- How will it help me? How will I know if it is working?
- When should I take the medicine? In the morning, at night etc.
• Should I take the medicine with food or on an empty stomach?
• What are the common side effects with this medicine? Are the benefits of this drug worth the side effects and drug interaction?
• Are there any necessary follow-ups either by exam or laboratory evaluation for monitoring this medicine?
• How long will I need to take this medicine? Will I be on this drug for life? Will we be able to discontinue it at some time?
• How much does it cost? Are there any cheaper alternatives to this medicine? Is there a generic version that has equal effectiveness?
• Can this medicine interact with any of my other medicines?
• How long has this medicine been on the market?
• Are there any severe risks with this medicine?
• What should I do if I miss a dose of the medicine?
• Can I drink alcohol while on this medicine?

The Agency for Healthcare Research and Quality lists 20 tips to help prevent medical errors (10). The first step that they recommend is that each health care consumer becomes an active member of his/her health care team. This is partly done by making sure that health care consumers maintain a personal medical record including a listing of all medical diagnoses, surgeries, medications taken and allergies (3).

Errors and Kids
Medication errors are much more common in children and are more likely to be harmful. The risk of adverse drug events in children in the hospital is about three times as high as hospitalized adult patients (4).

What makes kids more prone to errors? Most medications were developed for adults; children may need specialized adjustment in the medication dose which increases the risk of an error. Health care settings are built around the needs of adults and not kids (5). In addition, some health care providers are not as familiar with pediatric protocols.

Communication is also a concern. Many pediatric patients are unable to tell the health care team they are experiencing an adverse event (5).

What types of errors occur in kids? The most common type of error is an improper dose of a medication, followed by forgetting to do something, incorrect medication, prescribing error, improper administration technique, incorrect time, improper preparation, incorrect dose and wrong route (5).

The underlying causes of the errors include: lack of knowledge, not following protocol, poor communication, calculation error, computer error, improper monitoring and documentation problems (5).

Some strategies CNAs can take to reduce errors in the pediatric population include:

- Make sure there is adequate training for staff taking care of kids. Talk to your supervisor if you care for kids and have not had specific training.
- Make sure all pediatric patients are weighed. Weight is an important part of dosing medications in kids.
• Have a pediatric clinical expert available, such as a pediatric clinical nurse specialist.

**Tracking errors**

It is important for CNAs to not hide from their errors but learn from them. Tracking errors and having discussion about them will help staff develop a system that will teach providers how to be better workers and improve the system to help assure that it is as safe as possible (9).

**Conclusion**

Medical errors are a major problem in health care. Typically the problem is a system problem and not necessarily the result of one individual. The system needs to be fixed and the government and other organizations are working to improve the system. None the less, each individual CNA needs to be aware of common errors and be aware of steps to prevent them.

**References**


http://www.nia.nih.gov/NewsAndEvents/PressReleases/PR20000809Adverse.htm