Prevention of Medical Errors

Objectives:

1. Understand the scope of medical error issues.
2. Define medical error, adverse events, sentinel events, near miss events and root cause analysis.
3. List common causes of medical errors.
4. Discuss proven error reducing strategies.
5. Describe a culture of safety.
6. Review the reporting process when an error occurs.
7. Recognize the importance of patient education in the prevention of medical errors.
INTRODUCTION:

The mandatory information in this packet contains expert’s reviews and recommendations from The Joint Commission, The Agency for Healthcare Research and Quality, The FDA and various hospital education based studies and articles.
The goal of this program is for the healthcare professional to be able to recognize and define the cause and effects of medical errors and to be knowledgeable of existing strategies to reduce or prevent errors.

The United States has one of the top 40 healthcare systems in the world. However, the number of medical errors continues to occur at an alarming rate. This unfortunate reality was highlighted in the 1999 Institute of Medicine’s publication titled To Err is Human: Building a Safer System. This landmark report illuminated that medical errors have resulted in harm to 1 in every 25 hospitalized patients. These errors have caused the deaths of an estimated 44,000-98,000 people per year. Even at the lower end of the estimated deaths per year (44,000) medical errors rank as the 8th leading cause of death in the United States. This number exceeds deaths that are attributable to motor vehicular accidents (43,458), breast cancer (42,297), and AIDS (16,516). Those working on the healthcare industry would agree that the information presented in the report is not new. Previous studies dating back 50 years have consistently shown that many patients have been injured by the medical system that was put in place to help them. Subsequent studies (2004 Health Grade) have shown that the medical error rate that leads to patient death is probably even higher at an estimated 195,000 deaths annually. According to the IOM report the cost of medical errors is approximately 17 billion annually. In spite of a federal initiative aimed at reducing the medical error rate, current studies suggest that the numbers continue to climb.

DEFINITIONS:

Medical Error: A mistake; an unintended act, either of omission or commission, or an act that does not achieve its intended outcome. Medical errors that result in harm to the patient are not automatically considered negligence and they can happen during any point of the medical care process.

Incident: Also described as an occurrence, and is defined as any event that is unexpected or unintended or departs from acceptable standards of care. Adverse events also fall into this category along with events that result in an injury, or have the potential to result in an injury.

Adverse Event: An injury that is caused by healthcare personnel rather than caused by the patient’s underlying disease or condition. Although all adverse events stem from medical management, in reality not all are preventable.

Sentinel Event: Requires an immediate investigation as these occurrences involve death or serious physical or psychological injury or the risk thereof. The risk thereof includes any process variation for which a recurrence would carry a significant chance of serious adverse outcome.

Near Miss: A potential error or adverse event that could have caused harm but didn’t, either by someone intervening to stop the error, or simply by chance that error was averted. These occurrences need to be closely examined as well in order to prevent future events from happening.

Root Cause Analysis: Sets the stage for the discovery of the underlying causes that contributed to the adverse event. This is done after the error has been committed. The Root Cause Analysis also provides the opportunity to target the need for improvements in the process or system as well as to develop onsite education for healthcare professionals aimed at preventing recurrence.
Florida Law:

In the state of Florida, healthcare workers are required to report adverse events to their supervisor. Florida law also requires that licensed facilities such as hospitals and surgical care centers have an internal risk management program that monitors an incident reporting system. The healthcare worker is required to report occurrences to the risk manager within 3 business days. Serious adverse events, or sentinel events, such as death, brain or spinal cord injuries, permanent disfigurations, fractures and injuries that result in physical limitations must be reported to the Agency for Health Care Administration (AHCA) within 15 days. AHCA will review these circumstances on an individual basis and determine what, if any, penalties will be issued to the facility. In 2008, Florida AHCA reported 193 deaths that occurred as a result of medical errors. This number represented 33% of the 579 reported serious adverse events. Florida law also requires that hospitals and surgical centers must report injuries that have been caused by any other healthcare service such as nursing homes, doctors or dentist’s offices and home health agencies. (AHCA 2009 & FL statute 641.55)

Beginning in October 2014, President Obama’s health care law will place hospitals under greater pressure to perform well on a range of measures. Those that fall into the lowest preforming quarter of all hospitals will be docked 1 percent in billing. To put that into perspective, the federal government pays more than $110 billion a year to medical centers under the Medicare reimbursement program according to the Centers for Medicare and Medicaid Services. The payment system is starting to shift away from paying for volume. Instead they will be paying for the quality and outcomes of a service that is provided.

Factors that Contribute to Medical Errors:

- Communication – Thought to be the most common factor in error related circumstances. This may include inaccurate reporting/charting; not being clear on a directive; not communicating problems or concerns accurately to one’s supervisor; caring for the patient prior to receiving report and/or reviewing the care plan to note any changes since the previous shift. The caregiver needs to listen with full attention to the residents, patients, and clients and the non-verbal communication of those unable to verbally make their needs known due to neurological disorders and/or a disease process. Always, without exception, ask for guidance and use discretion when in doubt of an order, directive or other any procedure. There is no shame in requesting clarification- one should speak up and listen well. Inattentiveness and distraction may be the source of wrong information, which could later be manifested by committing an error. Fractured communication among healthcare workers has also been cited as a source for increased error potential. A recent study noted that an ICU patient has the potential to encounter 175 different interactions during a 3-day stay. In this fast paced high acuity setting the risk for error greatly increases in relation to the number of people involved in the plan of care for the patient. Most facilities now utilize a consistent framework protocol to convey key information among the healthcare team. An example of this is the S-B-A-R communication system:
  - **Situation** – a brief statement of the problem.
  - **Background** – data relevant to the situation.
  - **Assessment** - summary of the cause and severity.
  - **Recommendation** – the plan or intended course of action.

- Fatigue: Caregivers who do not get proper rest/sleep, nutrition and exercise may be prone to fatigue, causing lack of energy and the feeling of being over tired or exhausted. It is probably fair to say we have all worked at some point in our careers with fatigue. Add to that the unexpected double shift, overtime, second job, etc. and the fatigue issues quickly become evident. However, for us to be up to the challenge and accept the responsibility of caring for others- we must be in proper shape. To be otherwise, leaves error and us vulnerable to fatigue. We need our days off physically and emotionally.
• Staffing Issues: The Chicago Tribune study noted overworked nurses nationally contributed to 1700 patient deaths and 9500 patient injuries that occurred between 1995-2000. Furthermore the American Nurse Association (ANA) and the Agency for Healthcare Research and Quality (AHRQ) have both noted “a correlation between nurse staffing ratios and adverse events that occur in hospitals.” The Lockley Study (2007) concluded that nurses who work more than 12.5 hours significantly increase their risk of suffering an occupational injury and have a sharp increase in their medication error rate due to lack of concentration. The findings clearly indicate that patient safety may be compromised by lack of adequate staffing.

• Unfamiliar Situations: We have all had the experience of being in that “unfamiliar situation”. That type of situation may have occurred as a new staff member on-the-job, or having to float to another unit, or making a home visit to an unfamiliar client. In a new setting, always be sure to have the orientation needed to perform the duties in a knowledgeable manner. In the case of a new resident or client; it is most important to have the necessary information/care plan and understand what will be required to provide care for this individual.

• Equipment Flaws: From scales to thermometers, lifts to side rails, call lights to electrical equipment; whatever is used by the staff and by the patient/resident/client, needs to meet safety requirements. Always flag and note faulty equipment according to department policy.

We have looked at the factors and processes that we know can lead to error and at the same time must be mindful that errors caused by each of the above can be prevented. In 2001, The Institute of Medicines Quality of Healthcare Committee in America issued a second report: Crossing the Quality Chasm: A New System for the 21st Century. It is a call for the over-all improvement of the quality of health care for all Americans. In this report, six areas were noted for improvements that, if made- would “raise the quality of care to unprecedented levels.” These six areas are:

- **Safe**: Avoid injury with care intended to help the patient.
- **Effective**: Provide services to all patients who might benefit from the care, based on scientific knowledge, and refrain from treatment on those to whom the treatment would not benefit.
- **Patient Centered**: Respect for an individual patient’s needs, values and preferences, allowing patient’s values to guide the decision.
- **Timely**: Reduce waiting time for treatment.
- **Efficient**: Avoid all waste of equipment, supplies, time and energy.
- **Equitable**: Quality care for all. Care that does not differentiate between personal characteristics, including gender, ethnicity, geographic location, or income status.

These improvements in quality care are manifested in safety requirements which are now in effect by the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), - now called simply, The Joint Commission. The Department of Health Services (DHS) and Medicare, and eighteen states, including Florida-have mandatory error reporting policies.
High Risk Populations:

Certain populations have been identified as high-risk populations for increased risk of error. Infants and children are often placed in this category because they are prone to medication errors, which can cause serious harm. Pediatric medications are usually weight based and they can require complex calculations. Also their organs are not fully developed which can cause them to metabolize medications differently than adults. Additionally, infants and children often lack communication skills needed to inform clinicians of adverse effects such as dizziness or GI distress.

The elderly population is at an increased risk of error due to changes in hearing, vision and other cognitive changes. Their ability to metabolize medications may also be decreased leading to increased toxic effects in the organs. The elderly also tend to forget if they have taken their meds and may find themselves repeating a dose, or two, which could easily lead to overdose.

Language barriers can contribute to difficulty in following instructions. Low literacy levels, or difficulty reading at a 5th grade level, are found in over 1/3 of the adult population or 90 million people. Low literacy is defined as having reading skills that equate to a 5th grade level, or lower. Another 11 million people are non-literate, or cannot read at all. Obviously special attention and other forms of instructions need to be given to these groups to ensure their safety and compliance with prescribed medication and treatment regimes.

Any surgical patient is considered to be a higher risk for error to occur. Surgical errors can occur via the following 3 different situations:

- Wrong site
- Wrong Procedure
- Wrong Person

Wrong site surgery was the most frequent sentinel event reviewed by the Joint Commission in 2007 and they suspect the incidence wrong site surgery to be much higher than is reported. (The Joint Commission – 2010e) Although many factors may contribute to surgical error, the leading cause appears to stem from communication issues among staff or the informed consent process. Following communication issues other causes of surgical error are due to inadequate patient assessments, lack of clear procedural policies and inadequate staffing. These errors are 100% preventable and the Joint Commission has developed several protocols to ensure a reduction in the prevalence rates of surgical errors. One of the better-known interventions is the implementation of The Universal Protocol. This protocol involves clearly marking the incision site prior to the procedure, hopefully with the patients input. A Time Out is conducted immediately before the start of surgery in which all members of the surgical team identify the correct patient, the correct site and the procedure that is to be performed. This is considered to be a red rule or one that must never be broken. The Joint Commission felt strongly that complete adherence to this policy would successfully eliminate the incidence of surgical error but, sadly, this goal has not been reached as surgical mishaps now account for 22% of preventable patient deaths. A recent review indicated that the Time Out protocol has not been consistently implemented which led the Joint Commission to stress zero tolerance for those institutions that fail to comply with this policy. They further clarified that this policy applies to ALL types of procedures including radiological interventions and the administration of regional anesthetics.
Suicidal patients account for 12% of sentinel events. Most deaths occur in psychiatric facilities followed by general hospitals and then residential care facilities. Overall efforts to decrease these deaths include the standardization of assessment tools, consistent observation policies that includes the removal of all harmful items and the utilization of family and friends to watch the patient closely and immediately notify the nurse of acute behavioral changes.

Other Factors that Contribute to Medical Error

Medications:

Medication errors are the most frequent type of error that occurs in the United States. The Institute of Medicine (IOM) estimates that annually 1.5 million patients are harmed by medication errors that result in more than 7,000 deaths per year. A hospitalized patient, on average, can be expected to experience one medication error per day. The most frequent cause of error is found in the prescribing and administrating stages most commonly known as- failure to administer a prescribed dose, giving a wrong dose or giving a medication that was not ordered for a patient.

Medications known, as high-alert drugs are the most likely to cause serious harm and are involved in approximately 25% of all adverse drug reactions. The following drugs are found at the top of the high-alert list:

- Insulin
- Injectable potassium
- Chemotherapy drugs
- Opioids
- Heparin
- Neuromuscular blocking agents

These medications are now placed on strict guideline protocols that require stringent utilization of administration. These recommendations include removing high dose injectable potassium from the patient care areas and using a weight based heparin protocol to reduce error and improve patient care.

Also confusing are the ever-increasing list of sound alike drugs. The Federal Drug Administration is in the process of presenting new standards to prevent name confusion and reduce the incidence of similar appearing drug packaging. The following are examples common sound alike drugs:

- Celexa, Cerebyx and Celebrex
- Zyprexa, Zyrtec
- Lamictal, Lamisil

In an effort to minimize confusion, some facilities are now utilizing “tall man” lettering to draw attention to the similar medication names by capitalizing the letters in the name of the drug that are different.

- CelEXA vs CeleBREX
- LamiCTAL vs. LamiSIL

Concentrated efforts to reduce medical errors include using 2 sources for patient identification, utilizing bar coding systems and limited access to high-risk medications. The FDA continues to warn healthcare providers about the documented dangers of abbreviation use. A national campaign has been launched to discourage the use of the medical abbreviations that can be misinterpreted and lead to serious patient harm. A standardized abbreviation list is now in place and can be accessed at: http://www.ismp.org/tools/errorproneabbreviations.pdf.
Computer generated medication orders which replace, handwritten orders has also been shown to dramatically reduce errors. The vigilant monitoring of the nurses, doctors and pharmacists remains the most important factor in medication error reduction. Nurses are in a unique position to recognize errors in the prescribing and dispensing stages and are also the ones who provide the final check before the med is administered. Nurses who administer medications need to be knowledgeable regarding the indications and potential adverse interactions that the patient may encounter. Nurses must review the “5 Rights” prior to medication administration in which they ensure the right med is given in the right dose to the right patient at the right time via the correct route. Every effort should be made for nurses to minimize distractions while administrating medications as this has also been cited as a frequent contributing cause for medication errors. Some hospitals are mandating that nurses wear red vests that say DO NOT DISTURB while they are involved in medication administration in an effort to discourage interruptions. It is also necessary to educate the patients on the medications that they are receiving so they can also be informed on the purpose of the meds and the correct dosage and special considerations that relate to their individual situation.

Ultimately, it is the healthcare facilities responsibility to implement and oversee the policies and guidelines to ensure a climate of safe medication practice. Other suggestions for reducing risk factors involved with the medication process include:

- Utilize medications in a unit dose form
- Promptly clarify any order that is illegible or incomplete
- Use strategies to enhance awareness of similar sounding or similar appearing medication packaging
- Maintain current knowledge levels in regards to drug usage, interactions, contraindications and potential adverse reactions
- Follow standard medication administration time schedules
- Ask another healthcare professional to verify math calculations and complex infusion pump settings when using critical care or high risk medications
- Have appropriate drug reference materials available onsite or online
- Document medications immediately after administration

**Healthcare Acquired Infections**

Infections that are acquired in the health care setting continue to be a leading cause of death in the United States. It is estimated that annually 1.7 million infections occur resulting in 99,000 deaths. Approximately 50% of these infections are believed to be caused by errors. They are found in all areas and are frequently associated with surgical procedures, ventilators, catheters and transmission between healthcare workers and patients. Complicating factors include the easy to spread transmission of drug resistant, rapid spreading bacteria like Methicillin-resistant Staphylococcus aureus (MRSA) and Clostridium difficile (C-diff). Inadequate hand hygiene is often implicated as source of transmission. Healthcare workers should wash their hands for a minimum of 15 seconds with antimicrobial soap and while utilizing good friction to eradicate bacteria. Special attention needs to be taken on hospital surfaces such as light switches, call bells, bed rails, elevator buttons, phones and doorknobs as these are often found to be heavily contaminated with hazardous microbes. The Center for Disease Control (CDC) is currently advocating the use of hospital checklists during certain procedures to minimize infection risks. Checklists are quickly becoming the gold standard used as a measure to comply with evidence-based practices that are recommended by the Center for Disease Control (CDC). For example in 2006 a study of infections that are caused by the insertion of central line catheters in Intensive Care Units associated the routine use of 5 steps completed by a checklist to notably decrease in infection rates.
The 5 steps included:

1. Hand washing, minimum of 15 seconds, prior to procedure
2. Using full barrier precautions during the insertion of the central line.
3. Cleansing the site with chlorhexidine.
4. Avoiding the femoral site, when possible.
5. Prompt removal of catheters when no longer indicated.

108 intensive care units participated in the study and after 3 months, reported infections decreased by 66%. This finding remained sustained for over 18 months prompting 10 states to join this effort to reduce central line infections in 2010. This evidence-based study clearly shows the improvements that can be gained over consistent utilization of a guided checklist practice. These standardized checklist procedures have been followed rigidly in the aviation industry and this is one of the reasons their safety record is enviable. Based on recent airline statistics, it is estimated that a person could reasonably expect to fly nonstop for 438 years before experiencing a deadly plane crash. The Institute of Medicine (IOM) places healthcare a decade behind the aviation industry in safeguarding the health and lives of consumers.

Patient Falls-
Injuries that result from patient falls continue to plague healthcare facilities. Identifiable risk factors include advanced age, as the elderly are prone to mobility issues secondary to vision loss, impaired balance and side effects from medications such as dizziness. Frequent urination also poses unique challenges for the patient as it may cause the elderly patient to get up during the night in an unfamiliar environment, which could cause a fall. Obstetrical patients may have decreased sensation in their legs following epidural anesthesia and may experience excessive blood loss, which could unexpectedly lead to fainting from postural hypotension. Other high-risk situations consist of acute impairment from alcohol and drugs, which can induce, altered mental states, chronic mental illness and individuals who have a history of prior fall events. It is important that the healthcare professional complete a thorough screening on all patients to assess their risk for falls. It is equally important that this information be shared to all members of the team through an established protocol that will readily identify the client who is at increased risk for falls. The patient area should be kept neat, clean and spills should be wiped up immediately. Hallways must be free of clutter, equipment and unoccupied beds in order to decrease the potential for falls while ambulating. Preventative measures often go a long way in decreasing the likelihood of falls.

Diagnostic Error and Treatment Delays-
Inaccurate diagnosis can contribute to the medical error rate by delaying necessary treatment and often placing the patient at severe risk. In 2010, the Florida Board of Medicine found the 5 most common misdiagnosed conditions to be:

1. Cancer
2. Cardiac conditions
3. Acute abdomen
4. Stroke and other neurological conditions
5. Delayed diagnosis of surgical complications

Although it is difficult to determine accurate statistics regarding the prevalence of diagnostic error one recent study disclosed that out of 381 malpractice claims – a total of 181 of them – or 59% happened as a direct result of diagnostic error that led to serious harm and that 30% of them resulted in death. Other estimations have suggested that misdiagnosis may be responsible for 40,000-80,000 deaths per year in hospitalized patients. (Newman-Toker & Pronovost, 2009)

Lack of training and skill has often been associated with misdiagnosis but it is now thought to occur more commonly because of faulty communication among healthcare workers regarding test results, mislabeled...
lab specimens and inadequate end of shift reports between clinicians. Once again staff needs to reduce their reliance on “memory” and instead utilize organized checklists and computer based decision support systems. Distractions need to be kept to a minimum, as noise, clutter and frequent interruptions do not allow for clear thinking. It has been proven that when healthcare workers have adequate time to complete an evaluation without interruption, clinical judgment regarding appropriate care for their patients improves.

**Reporting Medical Errors:**

Now that you know what constitutes a medical error, it is important to understand the significance of the reporting process. Many people involved in a potential error process are hesitant to report because of a perceived “name, blame and shame” mentality that still exists in medical culture today. For many years the thought process regarding medical mistakes was – don’t-ask, don’t-tell. However, it is now recognized that errors can happen at any point of contact within the healthcare system. Hiding errors does not prevent them from happening again. Timely and truthful reporting of an error is important because the process is now designed to evaluate circumstances that could have led to the error. Through this discovery process, methods can be implemented to ensure that the same mistakes do not keep happening over and over again. Thus an error turns into an opportunity to actually improve the system by learning from the events that contributed to the error. This represents a major change in healthcare away from individual blame to recognizing errors as a means to improve the system. The Institute for Healthcare Improvement defines a culture of safety as one in which “staff members are aware of safety issues and free to report conditions that could lead to near misses or actual adverse events. This open exchange of information requires the management to have a non-punitive response philosophy that rewards the reporting of safety issues and events and does not punish staff members involved in errors or adverse events related to system failures.” Obviously these changes do not happen overnight so the cooperative efforts of all members of the multidisciplinary healthcare team will be needed to bring about these changes regarding the open exchange of information.

Maintaining a culture of safety also requires that the patient be notified when a medical error has occurred. This is difficult to do but it demonstrates a facility’s professional commitment to honesty even when telling the truth may lead to legal liability or an investigation by a regulatory body. Current training for reporting of medical error to patients suggest the facts of the incident should be disclosed as soon as possible as the patient is entitled to a prompt explanation of what happened as well as the treatments available to the patient. In spite of trying to educate patients on aspects of their care and encouraging them to take an active part in the decision making process, the responsibility to provide safe care lies with the healthcare team.

**Patient Safety Goals:**

The Joint Commission has established the National Patient Safety Goals program in 2003. The purpose of these safety goals is to highlight problem areas in healthcare and to suggest evidence-based solutions to these problems. These safety goals change annually depending upon the current issues in healthcare that are brought to light via the incident reports that are filed in the previous year throughout the United States. They serve as a reminder to clinicians that the problems they face in maintaining a culture of safety indeed is a nationwide issue. Furthermore, Joint Commission directs all accredited healthcare organizations to implement these safety goals in each facility and to instruct all employees on the importance of following the recommendations set forth under these guidelines. The following are some examples of the 2012 National Patient Safety Goals:

**Identify Patients Correctly** –

- Use at least 2 ways to identify patients. For example, use the patient’s name and date of birth. This needs to be done to ensure each patient gets the correct medicine and treatment.

**Improve Staff Communication** –

- Get important results to the right staff person on time.
Use Medicines Safely –

- Label medicines that are not labeled. This applies to medicines in syringes and medicine cups. Do this in the area where medications are set up.
- Take extra caution with patients who take medications to thin their blood.
- Record and pass along correct information about a patient’s medicine. Find out what medications the patient is already taking and compare those to new medicines that are ordered for the patient. Make sure the patient know what medicines to take when they get home. Tell the patient it is important to bring an up to date list of medications with them every time they go to a doctor.

Prevent Infections –

- Use the hand cleaning guidelines (minimum 15 seconds with good friction) from the Centers for Disease Control and Prevention or the World Health Organization. Set goals for improving hand hygiene.
- Use proven guidelines to prevent infections that are difficult to treat.
- Use proven guidelines to prevent infection in the blood from central lines.
- Use proven guidelines to prevent infection after surgery.
- Use proven guidelines to prevent infections of the urinary tract that are caused by catheters.

The Joint Commission also publishes The Sentinel Event Alert, which discusses sentinel events, factors that contribute to them and provides recommendations for actions that are to be taken to prevent these occurrences from happening again. The link to this website can be found at: 
[http://www.jointcommission.org/sentinelevents/sentineleventalerts](http://www.jointcommission.org/sentinelevents/sentineleventalerts)

The Joint Commission and the Institute of Medicine are not the only agencies responsible for regulating the healthcare industry’s safety standards. The following is a list of organizations that are involved with developing protocols based on best practices to improve patient safety:

Agency for Healthcare Research and Quality (AHRQ) –

- Signed in to action by President Clinton in 1999, this agency was designated to be the lead agency responsible for federal research in an effort to decrease medical errors.
- Published the following well known guide for patients to follow in an attempt to educate them in the decision making process involving their health. This fact sheet has been widely praised by both patients and healthcare professionals as a major influence on achieving better outcomes.
- These are guidelines only and not meant to shift the responsibility to the patient for the reduction of medical error, rather to better educate them regarding their own safety and to suggest measures to be involved, ask questions and seek answers they can understand.
20 Tips to Help Prevent Medical Errors

Patient Fact Sheet - Published by AHRQ

Medical errors can occur anywhere in the health care system: In hospitals, clinics, surgery centers, doctors' offices, nursing homes, pharmacies, and patients' homes. Errors can involve medicines, surgery, diagnosis, equipment, or lab reports. These tips tell what you can do to get safer care.

One in seven Medicare patients in hospitals experience a medical error. But medical errors can occur anywhere in the health care system: In hospitals, clinics, surgery centers, doctors' offices, nursing homes, pharmacies, and patients' homes. Errors can involve medicines, surgery, diagnosis, equipment, or lab reports. They can happen during even the most routine tasks, such as when a hospital patient on a salt-free diet is given a high-salt meal.

Most errors result from problems created by today's complex health care system. But errors also happen when doctors* and patients have problems communicating. These tips tell what you can do to get safer care.

What You Can Do to Stay Safe

The best way you can help to prevent errors is to be an active member of your health care team. That means taking part in every decision about your health care. Research shows that patients who are more involved with their care tend to get better results.

**Medicines**

1. **Make sure that all of your doctors know about every medicine you are taking.** This includes prescription and over-the-counter medicines and dietary supplements, such as vitamins and herbs.

2. **Bring all of your medicines and supplements to your doctor visits.** "Brown bagging" your medicines can help you and your doctor talk about them and find out if there are any problems. It can also help your doctor keep your records up to date and help you get better quality care.

3. **Make sure your doctor knows about any allergies and adverse reactions you have had to medicines.** This can help you to avoid getting a medicine that could harm you.

4. **When your doctor writes a prescription for you, make sure you can read it.** If you cannot read your doctor's handwriting, your pharmacist might not be able to either.

5. **Ask for information about your medicines in terms you can understand—both when your medicines are prescribed and when you get them:**

   - What is the medicine for?
   - How am I supposed to take it and for how long?
   - What side effects are likely? What do I do if they occur?
   - Is this medicine safe to take with other medicines or dietary supplements I am taking?
   - What food, drink, or activities should I avoid while taking this medicine?
6. When you pick up your medicine from the pharmacy, ask: Is this the medicine that my doctor prescribed?

7. If you have any questions about the directions on your medicine labels, ask. Medicine labels can be hard to understand. For example, ask if "four times daily" means taking a dose every 6 hours around the clock or just during regular waking hours.

8. Ask your pharmacist for the best device to measure your liquid medicine. For example, many people use household teaspoons, which often do not hold a true teaspoon of liquid. Special devices, like marked syringes, help people measure the right dose.

9. Ask for written information about the side effects your medicine could cause. If you know what might happen, you will be better prepared if it does or if something unexpected happens.

Hospital Stays

10. If you are in a hospital, consider asking all health care workers who will touch you whether they have washed their hands. Hand washing can prevent the spread of infections in hospitals.

11. When you are being discharged from the hospital, ask your doctor to explain the treatment plan you will follow at home. This includes learning about your new medicines, making sure you know when to schedule follow-up appointments, and finding out when you can get back to your regular activities.

   It is important to know whether or not you should keep taking the medicines you were taking before your hospital stay. Getting clear instructions may help prevent an unexpected return trip to the hospital.

Surgery

12. If you are having surgery, make sure that you, your doctor, and your surgeon all agree on exactly what will be done.

   Having surgery at the wrong site (for example, operating on the left knee instead of the right) is rare. But even once is too often. The good news is that wrong-site surgery is 100 percent preventable. Surgeons are expected to sign their initials directly on the site to be operated on before the surgery.

13. If you have a choice, choose a hospital where many patients have had the procedure or surgery you need. Research shows that patients tend to have better results when they are treated in hospitals that have a great deal of experience with their condition.
Other Steps

14. **Speak up if you have questions or concerns.** You have a right to question anyone who is involved with your care.

15. **Make sure that someone, such as your primary care doctor, coordinates your care.** This is especially important if you have many health problems or are in the hospital.

16. **Make sure that all your doctors have your important health information.** Do not assume that everyone has all the information they need.

17. **Ask a family member or friend to go to appointments with you.** Even if you do not need help now, you might need it later.

18. **Know that "more" is not always better.** It is a good idea to find out why a test or treatment is needed and how it can help you. You could be better off without it.

19. **If you have a test, do not assume that no news is good news.** Ask how and when you will get the results.

20. **Learn about your condition and treatments by asking your doctor and nurse and by using other reliable sources.** For example, treatment options based on the latest scientific evidence are available from the Effective Health Care Web site ([http://www.effectivehealthcare.ahrq.gov/options](http://www.effectivehealthcare.ahrq.gov/options)). Ask your doctor if your treatment is based on the latest evidence.
The Joint Commission (JCAHO) –
- Most widely known hospital regulatory agency. Established the National Patient Safety Goals.
  Provides ongoing surveys to nationally accredited healthcare facilities to determine their compliance with standards of care.

World Health Organization (WHO)
- Addresses major concerns relating to patient safety issues worldwide. Launched the “High 5” program in 2006. The purpose of this project is to significantly reduce the frequency of 5 common patient safety problems, in 5 countries, over 5 years. They hope to accomplish this goal through the education and use of standardized patient safety tools found in Standard Operating Protocols that address issues such as communication, medication accuracy and infections.

United States Food and Drug Agency (FDA) –
- Public health advocates charged with overseeing the safety and efficiency of medications (human and veterinary), as well as cosmetic products, tobacco, and medical devices.

Veterans Affairs Health Administration (VA) –
- The VA has the largest healthcare system in the country serving more than 3 million veterans a year in 172 hospitals and over 1,000 outpatient centers, nursing homes and counseling centers. The VA leadership has taken steps to promote a culture of safety by making public commitments to improving patient safety, allocating resources toward establishment of special centers, enhancing employee education on patient safety, and providing incentives to promote safety. The VA is also establishing one mandatory and one voluntary adverse event reporting system; in the latter case, the reporter remains anonymous. Examples of nationally mandated initiatives are bar coding of all medications and use of computerized medical record that includes order entry, laboratory and imaging results, and all encounter notes. These combined efforts have led the Institute of Medicine to declare the VA’s medical error reporting system a shining success story.

National Patient Safety Foundation (NPSF) –
- Designed to promote effective communication between patients and healthcare professionals.
- Encourages patients to become more involved in sharing the responsibility for their own safety.
- Stresses the importance of asking questions to their doctors, pharmacists and nurses. Well informed patients who ask the right question at the right time may prevent an error from happening.

The National Quality Forum (NQF) –
- A nonprofit organization whose goal is to improve the quality of healthcare for all Americans.
- Publishes the Safe Practices for Better Healthcare Consensus Report that outlines 34 evidence based practices designed to benefit safety for consumers, providers and researchers.

AND---The Leapfrog Group –
- A private sector group consisting of many of America’s largest employers, such as AARP, Boeing, FedEx, General Motors, Marriott, UPS and Sprint, was developed to promote safe healthcare practices.
- These employers are purchasing benefits for their staff and seek to reward hospitals for significant improvements in quality of care and patient safety.
The combined efforts of the above organizations brought awareness to the public to seek healthcare facilities that promote a culture of safety. Despite this increased awareness the issue of medical errors remains complex. And while some progress has been made in organizational processes and technology, there is still much room for improvement. Incentive remains high to show advancements. The bottom line is that as of 2008 federal reimbursement may be denied to hospitals for errors and events that could have been reasonably prevented such as:

8. Falls  
9. Pressure ulcers  
10. Hospital acquired infections  
11. Objects left in surgical patients  
12. Ventilator acquired pneumonia

CONCLUSION
The question remains – in spite of decreased resources, will healthcare facilities be able to maintain a safe environment and greatly reduce the incidence of medical errors? Many organizations are working on ways to implement changes although it seems as if no one is in complete control of the marketplace. The only thing that is clear is that we all have to take an active role in this partnership for change. As we come face to face with the challenges presented, we have a choice to become motivated to speak up and take action while embracing opportunities to foster positive improvements in the system. It is also important that we encourage our patients to assume some responsibility for their own safety by becoming educated on their disease process including necessary treatments and medications. Ultimately, we need to all work together to make the patients that we serve aware of our concerns for their safety, promote a sense of trust and competency within our healthcare system and clearly demonstrate improved outcomes for our patients.