I have received, read and understand the following Safety Measures set forth by The Joint Commission for the 2009 National Patient Safety Goals.

1. 2009 National Patient Safety Goals
2. Joint Commission "Do Not Use" list of abbreviations
3. Joint Commission list of "Look alike sound alike medications"
4. Center of Disease Control Hand Washing
5. Universal Protocol For Preventing Wrong Site, Wrong Procedure, Wrong Person Surgery
6. Sentinel Event and Incident Reporting
7. Article: Promoting a Culture of Safety to Prevent Medical Errors

Signature: _____

Title: _____

Date: _____

2009 National Patient Safety Goals
Joint Commission

1. Improve the accuracy of patient identification

-Use at least two patient identifiers when providing care, treatment and services

-Prior to the start of any surgical or invasive procedure, individuals involved in the procedure conduct a final verification process, such as a time out, to confirm the correct patient, procedure and site using active, not passive, communication techniques.

-Eliminate transfusion errors related to patient misidentification.

2. Improve the effectiveness of communication among caregivers

-For verbal or telephone orders or telephone reporting of critical results, the individual giving the order or test results verifies the complete order or test result by having the person receiving the information record and "read back" the complete order or test result.

-There is a standardized list of abbreviations, acronyms, symbols, and dose designations that are not to be used throughout the organization (see standardized acceptable abbreviation list)

-The organization measures, assesses and, if needed, takes action to improve the timeless of reporting, and the timeliness of receipt of critical results and values by the responsible licensed caregiver.

-The organization implements a standardized approach to hands off communications, including an opportunity to ask and respond to questions

3. Improve the safety of using medications

- The organization identifies and at minimum, annually reviews look alike sound alike medications used by the organization and takes action to prevent errors involving the interchange of these medications.(see sounds alike looks alike medication list)
- Label all medications, medication containers or other solutions on and off the sterile field.
- Reduce the likelihood of patient harm associated with the use of anticoagulation therapy

4. N/A

5. N/A

6. N/A

7. Reduce the risk of health care associated infections

- Comply with the current World Health Organization hand Hygiene guild lines or Center for Disease Control and Prevention hand Hygiene guidelines.
  (See Hand Hygiene list from the Center for Disease Control and Prevention)
- Manage all sentinel events all identified cases of unanticipated death or major permanent loss of function related to health care associated infection.
- Implement evidence bases practices to prevent health care acquired infections due to multiple drug-resistant organisms in acute care hospitals.
- Implement best practice or evidence-based guidelines to prevent central line associated bloodstream infections.
- Implement best practices for preventing surgical infections.

8. Accurately and completely reconcile medications crossed the continuum of care.

- A process exists for comparing the patient's current medications with those ordered for the patient while under the care of the organization.
- When a patient is referred or transferred from one organization to another, the complete and reconciled list of medications is communicated to the next provider of services and the communication is documented. Alternately, when a patient leaves the organizations care directly to his/ her home, the complete and reconciled list of medications is provided to the patients known primary care provider, or the original referring provider of service.
- When a patient leaves the organizations care, a complete and reconciled list of the patient's medication is provided directly to the patient and the patient's family as needed, and the list is explained to the patient and/or family.
- In the settings where medications are minimally, or prescribed for a short duration, modified medication reconciliation processes are preformed.

9. Reduce the risk of patient harm resulting from falls.

- The organization implements a fall reduction program that includes an evaluation of the effectiveness of the program.

10. Reduce the risk of influenza and pneumococcal disease in institutionalized older adults.

- The organization develops and implements protocols for administration of the flu vaccine.
- The organization develops and implements protocols for administration of the pneumococcus vaccine.
- The organization develops and implements protocols to identify new cases of influenza and to manage outbreaks.

11. Reduce the risk of surgical fires

- The organization educates staff, including licensed independent practioners who are involved with surgical procedures and anesthesia providers, on how to control heat sources, how to manage fuels while maintaining enough time for patient preparation, and establish guild lines to minimize oxygen concentration under drapes.

12. N/A

13. Encourage patients active involvement in there own care as a patient safety Strategy.

- Identify the ways the patient and his or her family can report concerns about safety and encourage them to do so

14. Prevent heath care associated pressure ulcers (decubitus ulcers)

- Assess and periodically reassess each resident's risk for developing a pressure ulcer (decubitus ulcer) and take action to address any identified risks.

15. The organization identifies safety risks inherent in it patient population.

- The organization identifies patients at risk for suicide
- The organization identifies risks associated with home oxygen therapy such as home fires.

16. Improve recognition and response to changes in a patient's condition.

- The organization selects a suitable method that enables health care staff members to directly request additional assistance from a specially trained individual when the patient's condition appears to be worsening.
- The organization meets the expectations of the Universal Protocol (see Universal Protocol pertaining to surgical procedures)
- Conduct a pre-procedure verification process.
- Mark the procedure site.
- A time- out is preformed immediately prior to starting procedures.

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The Joint Commission

Official "Do Not Use" List[1]

Do Not Use	Potential Problem	Use Instead
U (unit)	Mistaken for "0" (zero), the number "4" (four) or "cc"	Write "unit"
IU (International Unit)	Mistaken for IV (intravenous) or the number 10 (ten)	Write "International Unit"
Q.D., QD, q.d., qd (daily)	Mistaken for each other	Write "daily"
Q.O.D., QOD, q.o.d, qod (every other day)	Period after the Q mistaken for "I" and the "O" mistaken for "I"	Write "every other day"
Trailing zero (X.0 mg)* Lack of leading zero (.X mg)	Decimal point is missed	Write X mg Write 0.X mg
MS	Can mean morphine sulfate or magnesium sulfate	Write "morphine sulfate" Write "magnesium sulfate"
MSO_4 and $MgSO_4$	Confused for one another	

[1] Applies to all orders and all medication-related documentation that is handwritten (including free-text computer entry) or on pre-printed forms.

***Exception:** A "trailing zero" may be used only where required to demonstrate the level of precision of the value being reported, such as for laboratory results, imaging studies that report size of lesions, or catheter/tube sizes. It may not be used in medication orders or other medication-related documentation.

Additional Abbreviations, Acronyms and Symbols

(For possible future inclusion in the Official "Do Not Use" List)

Do Not Use	Potential Problem	Use Instead
> (greater than) < (less than)	Misinterpreted as the number "7" (seven) or the letter "L" Confused for one another	Write "greater than" Write "less than"
Abbreviations for drug names	Misinterpreted due to similar abbreviations for multiple drugs	Write drug names in full
Apothecary units	Unfamiliar to many practitioners Confused with metric units	Use metric units
@	Mistaken for the number "2" (two)	Write "at"
cc	Mistaken for U (units) when poorly written	Write "mL" or "ml" or "milliliters" ("mL" is preferred)
µg	Mistaken for mg (milligrams) resulting in one thousand-fold overdose	Write "mcg" or "micrograms"

National Patient Safety Goal: Identify and, at a minimum, annually review a list of look-alike/sound-alike drugs used in the organization, and take action to prevent errors involving the interchange of these drugs.

2006 – 2008†

Confusing drug names is a common system failure. Unfortunately, many drug names can look or sound like other drug names, which may lead to potentially harmful medication errors. Increasingly, pharmaceutical manufacturers and regulatory authorities are taking measures to determine if there are unacceptable similarities between proposed names and products on the market. But factors such as poor handwriting or poorly communicated oral prescriptions can exacerbate the problem. In 2001, The Joint Commission published a *Sentinel Event Alert* on look-alike and sound-alike drug names. This NPSG recognizes that health care practitioners and organizations need to be aware of the role drug names play in medication safety as well as system changes that can be made to prevent errors.

Tables I and II below provide lists of the most problematic look-alike and sound-alike drug names for specific health care settings.* Examples of potential errors and safety strategies specific to each of the problem drug names are provided, when applicable. Table III provides a list of other look-alike or sound-alike drug names that were rated or suggested by experts. General safety strategies to help manage all sound-alike and look-alike drug names are listed below the Tables, and should also be considered for implementation with each of the problematic names.

An organization's list of look-alike/sound-alike drugs must contain a minimum of 10 drug combinations. At least five of these combinations must be selected from Table I or from Table II, as appropriate to the type of organization. An additional five combinations must be selected from any of the Tables I, II and/or III. This list is revised as necessary and most recent additions appear in italics. Organizations should reassess previous choices in light of new information, including the revised list, and selection of replacement or additional pairs as indicated by the results of that assessment.

Table I: FOR CRITICAL ACCESS HOSPITAL, HOSPITAL, OFFICE-BASED SURGERY

Potential Problematic Drug Names		Brand Name(s) (UPPERCASE) & Generic (lowercase)	Potential Errors and Consequences	Specific Safety Strategies**
1.	Concentrated liquid morphine products vs. conventional liquid morphine concentrations.	Concentrated: **ROXANOL** morphine oral liquid (conventional concentration)	Concentrated forms of oral morphine solution (20 mg/mL) have often been confused with the conventional concentrations (listed as 10 mg/ 5 mL or 20 mg/5 mL), leading to serious errors. Accidental selection of the wrong concentration, and prescribing/labeling the product by volume, not milligrams, contributes to these errors, some of which have been fatal. For example, "10 mg" has been confused with "10 mL." If concentrated product is used, this represents a 20-fold overdose.	Dispense concentrated oral morphine solutions only when ordered for a specific patient (not as unit stock). Segregate the concentrated solution from the other concentrations wherever it is stored. Purchase and dispense concentrated solutions in dropper bottles (available from at least two manufacturers) to help prevent dose measurement errors and differentiate the concentrated product from the conventional products. Verify that patients and caregivers understand how to measure the proper dose for self-administration at home. For inpatients, dispense concentrated solutions in unit-doses.

† **This list is unchanged from the 2006-2007 list**

2.	ephedrine and epinephrine	**ADRENALIN** (epinephrine) ephedrine	The names of these two medications look very similar, and their clinical uses make storage near each other likely, especially in obstetrical areas. Both products are available in similar packaging (1 mL amber ampuls and vials).	See general recommendations below**.**
3.	hydromorphone injection and morphine injection	**DILAUDID** (hydromorphone) **ASTRAMOPRH, DURAMORPH, INFUMORPH** (morphine)	Some health care providers have mistakenly believed that hydromorphone is the generic equivalent of morphine. However, these products are not interchangeable. Fatal errors have occurred when hydromorphone was confused with morphine. Based on equianalgesic dose conversion, this may represent significant overdose, leading to serious adverse events. Storage of the two medications in close proximity to one another and in similar concentrations may contribute to such errors. Confusion has resulted in episodes of respiratory arrest due to potency differences between these drugs.	Stock specific strengths for each product that are dissimilar. For example, stock units with hydromorphone 1 mg unit dose cartridges, and morphine in 2 mg unit dose cartridges. Ensure that health care providers are aware that these two products are not interchangeable.
4.	*hydroxyzine and hydralazine*	**VISTARIL, ATARAX** (hydroxyzine)	Because the first four letters of their names are identical, they are frequently stored next to one another on pharmacy shelves and automated dispensing cabinets and listed adjacently on computer screens. Their similar dosage strengths (10, 25, 50 and 100 mg) and tablet dosage forms also contribute to confusion. Confusion between the antihistamine (hydroxyzine) and the antihypertensive agent (hydralazine) could lead to serious adverse drug events.	Change appearance of look-alike product names on computer screens, pharmacy and nursing unit shelf labels and bins (including automated dispensing cabinets), pharmacy product labels, and medication administration records. Differentiate drug names by using boldface, color, and/or “tall man” letters, to help emphasize the letter characters in each name that are unique to that name (e.g., hydrOXYzine, hydrALAzine). Choose generic manufacturers whose products exhibit clear labeling with “tall man” characters.

5.	Insulin products Humalog and Humulin Novolog and Novolin Humulin and Novolin Humalog and Novolog Novolin 70/30 and Novolog Mix 70/30	**HUMULIN** (human insulin products) **HUMALOG** (insulin lispro) **NOVOLIN** (human insulin products) **NOVOLOG** (human insulin aspart) **NOVOLIN** 70/30 (70% isophane insulin [NPH] and 30% insulin injection [regular]) **NOVOLOG MIX** 70/30 (70% insulin aspart protamine suspension and 30% insulin aspart)	Similar names, strengths and concentration ratios of some products (e.g. 70/30) have contributed to medication errors. Mix-ups have also occurred between the 100 unit/mL and 500 units/mL insulin concentrations.	Limit the use of insulin analog 70/30 mixtures to just a single product. Limit the variety of insulin products stored in patient care units, and remove patient-specific insulin vials from stock upon discharged. For drug selection screens, emphasize the word “mixture” or “mix” along with the name of the insulin product mixtures. Consider auxiliary labels for newer products to differentiate them from the established products. Also apply bold labels on atypical insulin concentrations.
6.	Lipid-based daunorubicin and doxorubicin products vs. conventional forms of daunorubicin and doxorubicin	**Lipid-based:** **DOXIL** (doxorubicin liposomal) **DAUNOXOME** (daunorubicin citrate liposomal) **Conventional:** **CERUBIDINE** (daunorubicin, conventional) **ADRIAMYCIN, RUBEX** (doxorubicin, conventional)	Many drugs now come in liposomal formulations indicated for special patient populations. Confusion may occur between the liposomal and the conventional formulation because of name similarity. The products are not interchangeable. Lipid-based formulation dosing guidelines differ significantly from conventional dosing. For example, a standard dose of doxorubicin liposomal is 20 mg/m^2 given at 21-day intervals, compared to doses of 50 to 75 mg/m^2 every 21 days for conventional drug. Doses of liposomal daunorubicin are typically 40 mg/m^2 repeated every two (2) weeks, while doses of conventional daunorubicin vary greatly and may be administered more frequently. Accidental administration of the liposomal form instead of the conventional form has resulted in severe side effects and death.	Staff involved in handling these products should be aware of the differences between conventional and lipid-based formulations of these drugs. Encourage staff to refer to the lipid-based products by their brand names and not just their generic names. Stop and verify that the correct drug is being used if staff, patients or family members notice a change in the solution’s appearance from previous infusions. Lipid-based products may be seen as cloudy rather than a clear solution. Storage of lipid-based products in patient care areas and automated dispensing cabinets is highly discouraged. Include specific method of administration for these products.
7.	Lipid-based amphotericin products vs. conventional forms of amphotericin	**Lipid-based:** **AMBISOME**	Many drugs now come in liposomal formulation indicated for special patient populations. Confusion may occur	Staff involved in handling these products should be aware of the differences between conventional and lipid-based formulations of

		(amphotericin B liposomal) **ABELCET** (amphotericin B lipid complex) **Conventional:** **AMPHOCIN, FUNGIZONE INTRAVENOUS** (amphotericin B desoxycholate)	between the liposomal and the conventional formulations because of name similarity. The products are not interchangeable. Lipid-based formulation dosing guidelines differ significantly from conventional dosing. Conventional amphotercin B desoxycholate doses should not exceed 1.5 mg/kg/day. Doses of the lipid-based products are higher, but vary from product to product. If conventional amphotericin B is given at a dose appropriate for a lipid-based product, a severe adverse event is likely. Confusion between these products has resulted in episodes of respiratory arrest and other dangerous, sometimes fatal outcomes due to potency differences between these drugs.	these drugs. Encourage staff to refer to the lipid-based products by their brand names and not just their generic names. Stop and verify that the correct drug is being used if staff, patients or family members notice a change in the solution's appearance from previous infusions. Lipid-based products may be seen as cloudy rather than a clear solution. Storage of lipid-based products in patient care areas and automated dispensing cabinets is highly discouraged. To reduce potential for confusion, consider limiting lipid-based amphotericin B products to one specific brand.
8.	*metformin and metronidazole*	**FLAGYL** (metronidazole) **GLUCOPHAGE** (metformin)	Potentially serious mix-ups between metronidazole and metformin have been linked to look-alike packaging (both bulk bottles and unit-dose packages) and selection of the wrong product after entering MET as a mnemonic. Metformin is contraindicated in certain clinical situations where use might contribute to lactic acidosis. Administration of intravenous iodinated contrast media during radiologic procedures has been associated with acute renal dysfunction.	To avoid order entry errors, program computer order entry software to display entire names of associated products whenever the MET stem is used as a mnemonic. Use tall man letters for unique letter characters in names. Pharmacy should consider stocking metronidazole in only 250 mg tablets (metformin tablets are not available as 250 mg tablets.) See also the general recommendations below.
9.	*OxyContin and oxycodone*	**OXYCONTIN** (oxycodone controlled-release) oxycodone (immediate release)	Mix-ups occur when staff confuse brand name, OxyContin, with oxycodone, or the prescriber uses the generic name to order the controlled release formulation without specifying "controlled release." Patient may receive immediate release product in dose appropriate for controlled release. Significant overdose may occur.	Do not store immediate release and controlled release products together. If possible, have the pharmacy dispense oral oxycodone products for individual patients. Always specify dosage form. Use available brand name when prescribing. Educate staff about the potential for confusion. See general recommendations below.

10.	vinblastine and vincristine	**VELBAN** (vinblastine) **ONCOVIN** (vincristine)	Fatal errors have occurred, often due to name similarity, when patients were erroneously given vincristine intravenously, but at the higher vinblastine dose. A typical vincristine dose is usually capped at around 1.4 mg/m^2 weekly. The vinblastine dose is variable but, for most adults, the weekly dosage range is 5.5 to 7.4 mg/m^2.	Install maximum dose warnings in computer systems to alert staff to name mix-ups during order entry. Do not store these agents near one another. Staff involved in handling these products should be aware of the differences. Use brand names or brand and generic names when prescribing and do not use abbreviations for these drug names.

* Note: The name pairs listed were selected after a review of error report descriptions received by the Institute for Safe Medication Practices, the United States Pharmacopeia, the US Food and Drug Administration, and the Pennsylvania Patient Safety Reporting System (Pa-PSRS). Ratings based on judgments of severity and likelihood of confusion in the clinical setting were provided by outside experts using a modified Delphi process. The list was updated in August 2006 with deletions or additions recommended by medication safety staff at ISMP, USP and FDA and also based upon frequency of reports and potential outcome severity. Appreciation is expressed to Medco Health Solutions for their input to the ambulatory drug portion of these listings. The assistance of ISMP in providing potential error consequences and safety strategies for this project is also appreciated.

*** These safety strategies are not inclusive of all possible strategies to reduce name-related errors. Also see General Recommendation for Preventing Drug Name Mix-ups below.*

Table II: FOR AMBULATORY CARE, ASSISTED LIVING, BEHAVIORAL HEALTHCARE, DISEASE SPECIFIC CARE, HOME CARE, LONG TERM CARE

Potential Problematic Drug Names		Brand Name(s) (UPPERCASE) & Generic (lowercase)	Potential Errors and Consequences	Suggested Safety Strategies**
1.	Avandia and Coumadin	**AVANDIA** (rosiglitazone) **COUMADIN** (warfarin)	Poorly handwritten orders for Avandia (used for type II diabetes) have been misread a Coumadin (used to prevent blood clot formation), leading to potentially serious adverse events. Mix-ups originally occurred due to unfamiliarity with Avandia- staff read the order as the more familiar Coumadin. However, mix-ups between these two products continue to occur. Neither medication is safe without appropriate monitoring that is specific to the drug.	See general recommendations below.
2.	Celebrex and Celexa and Cerebyx	**CELEBREX** (celecoxib) **CELEXA** (citalopram hydrobromide) **CEREBYX** (fosphenytoin)	Patients affected by a mix-up between these three drugs may experience a decline in mental status, lack of pain or seizure control, or other serious adverse events	See general recommendations below.
3.	clonidine and Klonopin	**CATAPRES** (clonidine) **KLONOPIN** (clonazepam)	The generic name for clonidine can easily be confused as the trade or generic name for clonazepam.	See general recommendations below.
4.	Concentrated liquid morphine products vs. conventional liquid morphine concentrations	Concentrated: **ROXANOL** morphine oral liquid (conventional concentration)	Concentrated forms of oral morphine solution (20 mg/mL) have often been confused with the conventional concentration (listed as 10 mg/5 mL or 20 mg/5 mL), leading to serious errors. Accidental selection of the wrong concentration, and prescribing/labeling the product by volume, not milligrams, contributes to these errors, some of which have been fatal. For example, “10 mg” has	Dispense concentrated oral morphine solutions only when ordered for a specific patient (not as unit stock). Segregate the concentrated solution from the other concentrations wherever it is stored. Purchase and dispense concentrated solutions in dropper bottles (available from at least two manufacturers) to help prevent

			been confused with “10 mL.” If concentrated product is used, this represents a 20-fold overdose.	dose measurement errors and differentiate the concentrated product from the conventional products. Verify that patients and caregivers understand how to measure the proper dose for self-administration at home. Dispense concentrated solutions in unit-doses if possible for residents in long-term care facilities.
5.	hydromorphone injection and morphine injection	**DILAUDID** (hydromorphone) **ASTRAMOPRH, DURAMORPH, INFUMORPH** (morphine)	Some health care providers have mistakenly believed that hydromorphone is the generic equivalent of morphine. However, these products are not interchangeable. Fatal errors have occurred when hydromorphone was confused with morphine. Based on equianalgesic dose conversion, this may represent significant overdose, leading to serious adverse events. Storage of the two medications in close proximity to one another and in similar concentrations may contribute to such errors. Confusion has resulted in episodes of respiratory arrest due to potency differences between these drugs.	Stock specific strengths for each product that are dissimilar. For example, stock units with hydromorphone 1 mg unit dose cartridges, and morphine in 2 mg unit dose cartridges. Ensure that health care providers are aware that these two products are not interchangeable.
6.	Insulin products Humalog and Humulin Novolog and Novolin Humulin and Novolin Humalog and Novolog Novolin 70/30 and Novolog Mix 70/30	**HUMULIN** (human insulin products) **HUMALOG** (insulin lispro) **NOVOLIN** (human insulin products) **NOVOLOG** (human insulin aspart) **NOVOLIN** 70/30 (70% isophane insulin [NPH] and 30% insulin injection [regular]) **NOVOLOG MIX** 70/30 (70% insulin aspart protamine suspension and 30% insulin aspart)	Similar names, strengths and concentration ratios of some products (e.g., 70/30) have contributed to medication errors. Mix-ups have also occurred between the 100 unit/mL and 500 units/mL insulin concentrations.	For drug selection screens, emphasize the word “mixture” or “mix” along with the name of the insulin product mixtures. Consider auxiliary labels for newer products to differentiate them from the established products. Also apply bold labels on atypical insulin concentrations.

7.	*lorazepam and alprazolam*	**ATIVAN** (lorazepam) **XANAX** (alprazolam)	These benzodiazepines have different potencies. A mix-up, especially in the elderly, would likely cause excessive sedation and increase fall risk.	See general recommendations below.
8.	*metformin and metronidazole*	**FLAGYL** (metronidazole) **GLUCOPHAGE** (metformin)	Potentially serious mix-ups between metronidazole and metformin have been linked to look-alike packaging (both bulk bottles and unit-dose packages) and selection of the wrong product after entering MET as a mnemonic. Metformin is contraindicated in certain clinical situations where use might contribute to lactic acidosis. Administration of intravenous iodinated contrast media during radiological procedures has been associated with acute renal dysfunction.	To avoid order entry errors, program computer order entry software to display entire names of associated products whenever the MET stem is used as a mnemonic. Use tall man letters for unique letter characters in names. Pharmacy should consider stocking metronidazole in only 250 mg tablets (metformin tablets are not available as 250 mg tablets.) See also the general recommendations below.
9.	*Topamax and Toprol XL*	**TOPAMAX** (topiramate) **TOPROL-XL** (metoprolol).	Error is likely attributable to the similarity in names with the “X” in XL of the beta-blocker, Toprol XL, looking like the ending of Topamax, an anticonvulsant. In addition, available dosage strengths (25, 50, 100, 200) are identical, adding to likelihood of mix-up. Imprint on the Topamax tablet is "TOP" on one side and 25 mg strength has "25" on the other, risking confusion with Toprol XL 25 mg. Patients needing Topamax may develop seizures and/or have adverse effects with Toprol XL. Patients needing a beta-blocker may have worsened disease symptoms without treatment. These products might be stored near one another if medications are stocked alphabetically by brand name or might appear near one another on computer screens.	Separate the storage of these products. Use both brand and generic names when prescribing these medications to differentiate the two drug names. See general recommendations below.

10.	Zyprexa and Zyrtec	**ZYPREXA** (olanzapine) **ZYRTEC** (cetirizine)	Name similarity has resulted in frequent mix-ups between Zyrtec, an antihistamine, and Zyprexa, an antipsychotic. Patients who receive Zyprexa in error have reported dizziness, sometimes leading to a related injury from a fall. Patients on Zyprexa for a mental illness have relapsed when given Zyrtec in error.	See general recommendations below.

* Note: The name pairs listed were selected after a review of error report descriptions received by the Institute for Safe Medication Practices, the United States Pharmacopeia, the US Food and Drug Administration, and the Pennsylvania Patient Safety Reporting System (Pa-PSRS). Ratings based on judgments of severity and likelihood of confusion in the clinical setting were provided by outside experts using a modified Delphi process. The list was updated in August 2006 with deletions or additions recommended by medication safety staff at ISMP, USP and FDA and also based upon frequency of reports and potential outcome severity. Appreciation is expressed to Medco Health Solutions for their input to the ambulatory drug portion of these listings. The assistance of ISMP in providing potential error consequences and safety strategies for this project is also appreciated.

*** These safety strategies are not inclusive of all possible strategies to reduce name-related errors. Also see General Recommendation for Preventing Drug Name Mix-ups below.*

Table III: SUPPLEMENTAL LIST

Other name pairs that were rated or suggested by experts:

Acetohexamide – acetazolamide

Advicor and Advair

Amicar - Omacor

Avinza – Evista

Cardura - Coumadin

Darvocet - Percocet

Diabeta – Zebeta

Diflucan – Diprivan

Effexor XR - Effexor

folic acid – leucovorin calcium ("folinic acid")

heparin - Hespan

hydrocodone – oxycodone

idarubicin – doxorubicin - daunorubicin

lamivudine – lamotrigine

Leukeran – leucovorin calcium

MS Contin – Oxycontin

Mucinex. - Mucomyst

opium tincture – paregoric (camphorated opium tincture)

Prilosec - Prozac

Retrovir - Ritonavir

tizanidine - tiagabine

tramadol – trazodone

Wellbutrin SR - Wellbutrin XL

Zantac – Xanax

Zantac – Zyrtec

Zestril - Zyprexa

Zestril - Zetia

Zocor – Zyrtec

GENERAL RECOMMENDATIONS FOR PREVENTING DRUG NAME MIX-UPS

What prescribers can do[1,2]

Maintain awareness of look-alike and sound-alike drug names as published by various safety agencies.
Clearly specify the dosage form, drug strength, and complete directions on prescriptions. These variables may help staff differentiate products.
With name pairs known to be problematic, reduce the potential for confusion by writing prescriptions using both the brand and generic name.
Include the purpose of medication on prescriptions. In most cases drugs that sound or look similar are used for different purposes.
Alert patients to the potential for mix-ups, especially with known problematic drug names. Advise ambulatory care patients to insist on pharmacy counseling when picking up prescriptions, and to verify that the medication and directions match what the prescriber has told them.
Encourage inpatients to question nurses about medications that are unfamiliar or look or sound different than expected.
Give verbal or telephone orders only when truly necessary, and never for chemotherapeutics. Include the drug's intended purpose to ensure clarity.
Encourage staff to read back all orders, spell the product name, and state its indication.

What organizations and practitioners can do[1,2]

Maintain awareness of look-alike and sound-alike drug names as published by various safety agencies. Regularly provide information to professional staff.
Whenever possible, determine the purpose of the medication before dispensing or drug administration. Most products with look or sound-alike names are used for different purposes.
Accept verbal or telephone orders only when truly necessary, and never for chemotherapy. Encourage staff to read back all orders, spell the product name, and state its indication.

Consider the possibility of name confusion when adding a new product to the formulary. Review information previously published by safety agencies.
Computerize prescribing. Use preprinted orders or prescriptions as appropriate. If possible, print out current medications daily from the pharmacy computer system and have physicians review for accuracy.
When possible, list brand and generic names on medication administration records and automated dispensing cabinet computer screens. Such redundancy could help someone identify an error.
Change the appearance and of look-alike product names on computer screens, pharmacy and nursing unit shelf labels and bins (including automated dispensing cabinets), pharmacy product labels, and medication administration records by highlighting, through bold face, color, and/or tall man letters, the parts of the names that are different (e.g., hydr**OXY**zine, hydr**ALA**zine).
Install and utilize computerized alerts to remind providers about potential problems during prescription processing.
Configure computer selection screens and automated dispensing cabinet screens to prevent the two confused drugs from appearing consecutively.
Affix “name alert” stickers to areas where look or sound-alike products are stored (available from pharmacy label manufacturers).
Store products with look or sound-alike names in different locations in pharmacies, patient care units, and in other settings, including patient homes. When applicable, use a shelf sticker to help locate the product that has been moved.
Continue to employ independent double checks in the dispensing process (one person interprets and enters the prescription into the computer and another reviews the printed label against the original prescription and the product prior to dispensing).
Encourage reporting of errors and potentially hazardous conditions with look and sound-alike product names and use the information to establish priorities for error reduction. Also maintain awareness of problematic product names and error prevention recommendations provided by ISMP (www.ismp.org), FDA (www.fda.gov), and USP (www.usp.org).

References

1. ISMP: What’s in a name? Ways to prevent dispensing errors linked to name confusion. *ISMP Medication Safety Alert!,* 7(12) June 12, 2002, http://www.ismp.org/Newsletters/acutecare/archives/Jun02.asp
2. The Joint Commission: *Sentinel Event Alert.* Issue 19, May 2001
3. Santell JP, Cousins DD: Medication Errors Related to Product Names. *Joint Commission Journal on Quality and Patient Safety,* 2005, 31:649-54

Center of Disease Control
Hand Hygiene

Fact Sheet

Hand Hygiene Guidelines Fact Sheet

- Improved adherence to hand hygiene (i.e. hand washing or use of alcohol-based hand rubs) has been shown to terminate outbreaks in health care facilities, to reduce transmission of antimicrobial resistant organisms (e.g. methicillin resistant staphylococcus aureus) and reduce overall infection rates.

- CDC is releasing guidelines to improve adherence to hand hygiene in health care settings. In addition to traditional handwashing with soap and water, CDC is recommending the use of alcohol-based handrubs by health care personnel for patient care because they address some of the obstacles that health care professionals face when taking care of patients.

- Handwashing with soap and water remains a sensible strategy for hand hygiene in non-health care settings and is recommended by CDC and other experts.

- When health care personnel's hands are visibly soiled, they should wash with soap and water.

- The use of gloves does not eliminate the need for hand hygiene. Likewise, the use of hand hygiene does not eliminate the need for gloves. Gloves reduce hand contamination by 70 percent to 80 percent, prevent cross-contamination and protect patients and health care personnel from infection. Handrubs should be used before and after each patient just as gloves should be changed before and after each patient.

- When using an alcohol-based handrub, apply product to palm of one hand and rub hands together, covering all surfaces of hands and fingers, until hands are dry. Note that the volume needed to reduce the number of bacteria on hands varies by product.

- Alcohol-based handrubs significantly reduce the number of microorganisms on skin, are fast acting and cause less skin irritation.

- Health care personnel should avoid wearing artificial nails and keep natural nails

less than one quarter of an inch long if they care for patients at high risk of acquiring infections (e.g. Patients in intensive care units or in transplant units

- When evaluating hand hygiene products for potential use in health care facilities, administrators or product selection committees should consider the relative efficacy of antiseptic agents against various pathogens and the acceptability of hand hygiene products by personnel. Characteristics of a product that can affect acceptance and therefore usage include its smell, consistency, color and the effect of dryness on hands.

- As part of these recommendations, CDC is asking health care facilities to develop and implement a system for measuring improvements in adherence to these hand hygiene recommendations. Some of the suggested performance indicators include: periodic monitoring of hand hygiene adherence and providing feedback to personnel regarding their performance, monitoring the volume of alcohol-based handrub used/1000 patient days, monitoring adherence to policies dealing with wearing artificial nails and focused assessment of the adequacy of health care personnel hand hygiene when outbreaks of infection occur.

- Allergic contact dermatitis due to alcohol hand rubs is very uncommon. However, with increasing use of such products by health care personnel, it is likely that true allergic reactions to such products will occasionally be encountered.

- Alcohol-based hand rubs take less time to use than traditional hand washing. In an eight-hour shift, an estimated one hour of an ICU nurse's time will be saved by using an alcohol-based handrub.

- These guidelines should not be construed to legalize product claims that are not allowed by an FDA product approval by FDA's Over-the-Counter Drug Review. The recommendations are not intended to apply to consumer use of the products discussed.

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CDC protects people's health and safety by preventing and controlling diseases and injuries; enhances health decisions by providing credible information on critical health issues; and promotes healthy living through strong partnerships with local, national, and international organizations.

Universal Protocol For Preventing Wrong Site, Wrong Procedure, Wrong Person Surgery™

Wrong site, wrong procedure, wrong person surgery can be prevented. This universal protocol is intended to achieve that goal. It is based on the consensus of experts from the relevant clinical specialties and professional disciplines and is endorsed by more than 40 professional medical associations and organizations.

In developing this protocol, consensus was reached on the following principles:

- Wrong site, wrong procedure, wrong person surgery can and must be prevented.
- A robust approach—using multiple, complementary strategies—is necessary to achieve the goal of eliminating wrong site, wrong procedure, wrong person surgery.
- Active involvement and effective communication among all members of the surgical team is important for success.
- To the extent possible, the patient (or legally designated representative) should be involved in the process.
- Consistent implementation of a standardized approach using a universal, consensus-based protocol will be most effective.
- The protocol should be flexible enough to allow for implementation with appropriate adaptation when required to meet specific patient needs.
- A requirement for site marking should focus on cases involving right/left distinction, multiple structures (fingers, toes), or levels (spine).
- The universal protocol should be applicable or adaptable to all operative and other invasive procedures that expose patients to harm, including procedures done in settings other than the operating room.

In concert with these principles, the following steps, taken together, comprise the Universal Protocol for eliminating wrong site, wrong procedure, wrong person surgery:

- Pre-operative verification process
  - Purpose: To ensure that all of the relevant documents and studies are available prior to the start of the procedure and that they have been reviewed and are consistent with each other and with the patient's expectations and with the team's understanding of the intended patient, procedure, site and, as applicable, any implants. Missing information or discrepancies must be addressed before starting the procedure.
  - Process: An ongoing process of information gathering and verification, beginning with the determination to do the procedure, continuing through all settings and interventions involved in the preoperative preparation of the patient, up to and including the "time out" just before the start of the procedure.
- Marking the operative site
  - Purpose: To identify unambiguously the intended site of incision or insertion.
  - Process: For procedures involving right/left distinction, multiple structures (such as fingers and toes), or multiple levels (as in spinal procedures), the intended site must be marked such that the mark will be visible after the patient has been prepped and draped.
- "Time out" immediately before starting the procedure
  - Purpose: To conduct a final verification of the correct patient, procedure, site and, as applicable, implants.
  - Process: Active communication among all members of the surgical/procedure team, consistently initiated by a designated member of the team, conducted in a "fail-safe" mode, i.e., the procedure is not started until any questions or concerns are resolved.

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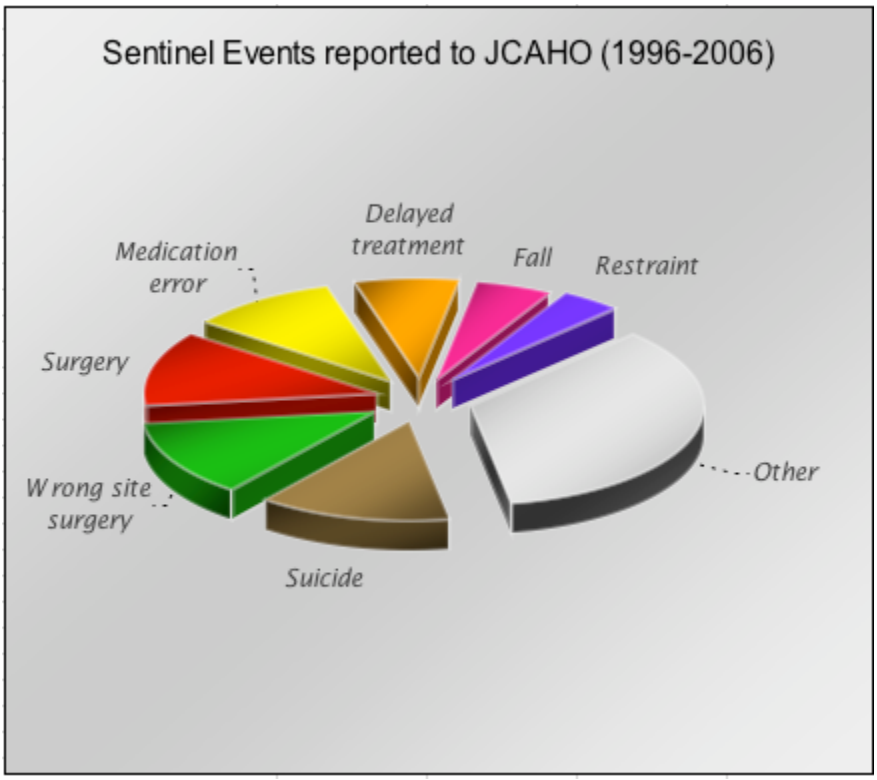
Nurses 24/7 Sentinel Events

Nurses 24/7 is very concerned in about Sentential Events. It is our goal as your staffing company to make sure that you are educated in how to avoid sentential events, how to report a sentinel events and the follow up that is done from the perspective of the hospital and the agency. Patient safety and delivering quality health care is the number one concern of Nurses 24/7. As an agency nurse it is sometimes difficult to keep up with the policies and procedures of every hospital you may work at. The goal of this in-service is to give you a comprehensive way to report sentinel events to the agency in order to assure proper follow up.

Definition of Sentinel Events:

A **sentinel event** is defined by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) as any unanticipated event in a healthcare setting resulting in death or serious physical or psychological injury to a person or persons, not related to the natural course of the patient's illness. Sentinel events specifically include loss of a limb or gross motor function, and any event for which a recurrence would carry a risk of a serious adverse outcome. Sentinel events are identified under JCAHO accreditation policies to help aid in root cause analysis and to assist in development of preventative measures. The Joint Commission tracks events in a database to ensure events are adequately analyzed and undesirable trends or decreases in performance are caught early and mitigated.



Avoiding Sentinel Events through Education

Continuing education regarding sentinel events is the best way to avoid one. Information is provided to all Nurses 24/7 employees of via our website (under the tab downloads) Required JCAHO paperwork. The topics include the 2009 National Patient Safety Goals, Joint Commission " Do not use" list of abbreviations, Joint Commission list of " Look alike sound alike medications", Center of Disease Control Hand washing, Universal Protocol for avoiding Wrong Site, Wrong Procedure, Wrong Person Surgery. Also available to all our nurses and Allied staff is the free CEU's through CE Direct. Attached is an article from CE Direct titled "Promoting a Culture of Patient Safety to Prevent Medical Errors". You may earn 1 hour of CEU by accessing CE Direct through the Nurses 24/7 website and answering the questions to this related article. Contact the agency for more information regarding CE Direct.

What do you do if your patient is involved in a Sentinel Event?

1. All incidents in the hospital regardless of the severity, needs to reported immediately to the agency.
2. Call the Chief Nursing Officer Marion Rider at 1-866-687-7376. If after hours the on call staff will take the pertinent information and Marion will follow up within 24 hours.
3. If involved in a sentinel event make sure that the supervisor for the hospital is made aware and an incident report is done by the hospital.
4. Be sure to get the contact information of the supervisor so that the agency may receive a copy of the incident report and be involved in the Root Cause Analyses.

What happens as a result of a sentinel event?

1. The agency will perform its own information gathering from the reporting person, hospital staff and hospital supervisors.
2. A Root Cause Analysis will be done regarding the incident, employee performance, extenuating circumstances and the extent of harm resulting from the incident.
3. Agency committee involving the Chief Nursing Officer, Director of Operations, Human Resources representative, Agency Nurse representative and the reporting party (if they wish to be involved) will perform a Root Cause Analyses. The committees finding will be reported to the Joint Commission per their Policies and Procedures and follow up reports will be sent to the facility as well as the reporting party.

Any Question or concerns regarding Sentinel Events may be directed to:

Marion Rider RN, BSN
Chief Nursing Officer
1-973-709-1009 ext 1213
mrider@ nurses 247.com

Promoting a Culture of Safety to Prevent Medical Errors

After successful orthopedic surgery, a 78-year-old woman with a swallowing impairment dies after aspirating the regular diet she is mistakenly given. A healthy 30-year-old man receives the wrong unit of blood and develops acute renal failure.

A 2-day-old infant is abducted from a postpartum unit.

A 68-year-old woman with a spinal cord injury develops a sacral pressure ulcer. These are examples of medical errors and substandard care that occur in today's complex healthcare organizations.

As many as 98,000 Americans die each year of largely preventable medical errors, according to the Institute of Medicine's 1999 report *To Err Is Human: Building a Safer Health System*.[1] (The IOM, established in 1970 under the charter of the National Academy of Sciences, provides objective, independent, evidence-based advice to health professionals, policymakers, and the public.) Several studies have tried to determine just how much medical errors cost. One estimated that medical errors cost from $17 million to $29 million yearly.[2] Another found that medical errors account for up to 2.4 million additional hospital days.[3] The emotional impact, both for the patient and family and for the healthcare professional whose action or inaction may have caused serious harm, is long-lasting.

Although organizations such as the IOM, the Agency for Healthcare Research and Quality, The Joint Commission, and the Centers for Medicare and Medicaid Services have all emphasized the need for significant improvement, much more progress is needed to ensure that Americans are better protected from unsafe healthcare.[5] Nurses as frontline managers of patient care must be actively involved in the prevention of medical errors.

Never Ever

A "never event" is a serious error indicating a problem with the safety of a health facility and jeopardizing its credibility.[3] As the term implies, a "never event" should not happen. Examples include surgery on the wrong body part, a major medical error, a mismatched blood transfusion, a foreign object left in a patient following surgery, serious hospital-acquired pressure ulcers, and preventable postoperative deaths.[3] These costly and often tragic events have a major impact on the budget of the Centers for Medicare and Medicaid Services. As of October 2008, the CMS stopped reimbursing hospitals for costs associated with specific events, such as serious hospital-acquired pressure ulcers, that it considers preventable. In addition, nearly 20 states have plans — or are considering plans — to deny payments to health organizations for some "never events."[3]

Experts emphasize that most medical errors and poor patient outcomes can be prevented, beginning with implementing evidence-based practice. But studies

indicate 30% to 40% of patients receive care inconsistent with current scientific evidence.[5] Errors can happen in any setting in which providers diagnose and treat health problems.

Sophisticated technologies and procedures and complex health problems and responses to interventions — combined with the fact that many different people provide patient care — make hospitals in particular prone to errors. The highest-risk areas are EDs, ICUs, and ORs, where there is little time to react to unexpected events and where inappropriate decisions can be life threatening.[1] But outpatient centers, physician offices, clinics, nursing homes, and even home healthcare settings are not immune to incidents that cause harm to patients.[1]

Some Safer than Others

In addition to providing a wake-up call about preventable deaths, To Err Is Human challenged another assumption: that incompetent or uncaring physicians and nurses cause most medical errors. In fact, the way in which healthcare is organized sets the stage for errors.[6] The National Quality Forum, with support from the Agency for Healthcare Research and Quality, has specified 30 safe practices that it urges healthcare organizations to implement to provide a safer environment. At the top of this list is the need to create a "culture of safety."

An organization's culture is based on its history, mission and goals, and past and present leadership.[4] The culture of a healthcare setting includes shared values, beliefs, customs, and behavior that determine how healthcare providers carry out their roles.[7] The AHRQ describes two important characteristics of healthcare organizations that develop and maintain a culture of safety. First, the organization actively encourages and supports people who report any situation that threatens or potentially threatens the safety of patients or caregivers. Second, the organization views errors and adverse events as opportunities to improve healthcare delivery.[8] An organization that promotes a culture of safety focuses on how and why a problem occurred rather than on the person whose action or inaction caused a serious error.[1] Experts refer to healthcare organizations that have a passion for patient safety as "high-reliability" organizations. In such organizations, being on the alert for how patients can be protected from harm is part of everyday work life.[4] Although high-reliability organizations have few adverse events, they still continually focus on ways that patient safety may be compromised.[9] They view a "close call" or "near miss" as a signal to closely examine conditions in which a patient could have been injured.[9] In organizations that value a culture of safety, high-quality care is expected and rewarded.[4]

When a serious medical error occurs, organizations have several choices about how to respond. The quickest and simplest reaction is to identify and punish the person responsible. In such an atmosphere, staff members are unlikely to report errors.[10] Historically, health professionals have avoided openly discussing errors because of a fear of censure or lawsuits and feelings of shame.[1] By blaming individual providers rather than looking more deeply into the causes of errors, the healthcare industry has driven problems underground rather than openly examining practices that can harm patients.[2]

Highly bureaucratic organizations tend to view errors as isolated incidents and spend little time examining how their own policies, procedures, and work culture may have

contributed to an error. Organizations can quickly retrain staff members involved in an error, but the impact on reducing the risk of future events is often short-lived, especially if a knowledge deficit wasn't the real cause.

Best Chance for Change

Establishing a safety culture is a challenge, but it offers the best opportunity for permanent change.[10] Health organizations that are willing to examine how their own systems and procedures contribute to errors are most likely to maintain a work environment in which safety for both patients and staff is part of the work climate. A major trend in promoting a safer healthcare environment is to view errors from a human factors approach. Human factors experts consider human strengths and weaknesses in designing work systems. Although work systems are frequently the cause of medical errors, organizations with a commitment to patient safety are also willing to make employees accountable when appropriate.[10]

The Joint Commission has taken a leadership role in promoting patient safety through its sentinel event reporting program and national patient safety goals. A sentinel event is any unexpected event involving death or serious physical or psychological injury, or a situation in which a patient was at risk of serious harm.[9] Sentinel events are extremely serious events that signal the need to take immediate action to determine what happened and to propose ways to prevent similar events from happening in the future. Examples of sentinel events subject to Joint Commission review include an unanticipated death or major permanent loss of function not related to a person's underlying condition, a patient suicide, the death of a full-term infant, patient abduction, discharge of an infant to the wrong family, rape involving patients or staff members, major blood transfusion reactions, surgery on the wrong person or wrong body part, unintended retention of a foreign object after a surgical procedure, severe neonatal hyperbilirubinemia, and prolonged exposure to radiation during diagnostic or therapeutic procedures.[10]

Most Frequent Errors

The most common sentinel events that health organizations reported to the Joint Commission from 1995 to 2005 were patient suicide, wrong-site surgery, operative or postoperative complications, medication errors, delay in treatment, patient falls, patient death or injury in restraints, assault, rape, homicide, perinatal death or loss of function, and transfusion errors.[10] The sentinel events seen depend on the healthcare setting and the population served. In hospitals, postoperative complications, wrong-site surgery, medical errors, treatment delays, and falls are the most commonly reported sentinel events.[10] In EDs, treatment delays, med errors, suicide, restraint-related events, and criminal events are generally responsible for sentinel events.[10]

Reporting a sentinel event can benefit an organization, as well as help improve patient safety throughout the healthcare industry. The Joint Commission can add the lessons learned from each sentinel event to its sentinel event database to help other organizations be aware of hazards and put plans in place to prevent similar events.[10] A reporting facility can also take advantage of the experience and expertise of Joint Commission staff to investigate the event and design an action plan to reduce the risk of recurrence.[9] Healthcare organizations that report problems to the commission

also send a message to their clients that they are pursuing steps to address the problem with due diligence.[9]

"Sentinel Event Alerts," published periodically by the Joint Commission, communicates information about sentinel events. A recent alert focused on unprofessional provider behavior linked to medical errors.[11] Such behavior may include verbal outbursts, physical threats to other health professionals, a refusal to perform assigned tasks, or an uncooperative manner with other members of the healthcare team. A new Joint Commission leadership standard requires that organizations establish a code of conduct and develop a process for responding to inappropriate behavior.[11]

When a sentinel event occurs, the Joint Commission expects the organization to conduct a root-cause analysis and develop a plan to prevent the error from happening again. A root-cause analysis is an in-depth examination of the underlying causes of the event. From 1995 to 2005, the Joint Commission reports that healthcare organizations cited inadequate communication as the root cause in almost 70% of sentinel events, followed by lack of orientation and training, and inappropriate patient assessment.[10] Medical and nursing education have traditionally focused on developing practitioners with excellent clinical skills rather than expertise as communicators and team members.[12] A focus on improving communication and interdisciplinary teamwork has shown significant promise in reducing medical errors.

Root causes are often interrelated, and careful and objective analysis may uncover a deeper root cause. For example, a root-cause analysis may show that the incorrect labeling of a container was the reason the wrong solution was injected during a surgical procedure. Further analysis may reveal that the culture of a specific OR doesn't support compliance with new procedures, especially those that add time to an already busy schedule. In fact, the commission reports that organizational culture may be part of the underling root cause in most sentinel events.[10]

The Joint Commission also publishes annual national patient safety goals. These goals, some of which the commission develops in response to information in its sentinel event database, describe current problems in healthcare safety and provide evidence-based and expert advice on how to make healthcare environments safer.[10]

The Joint Commission also recognizes the important role the public plays in preventing medical errors. In 2002, the commission, in collaboration with the CMS, established The Speak Up Campaign, a national effort to encourage patients to become more involved in preventing healthcare errors by becoming active in and informed about the care they are receiving. Speak Up materials are available online at www.jointcommission.org/GeneralPublic/Speak+Up. Patients and families need to understand their roles in speaking up to help prevent sentinel events, and healthcare organizations need to support them in fulfilling this important role.

Nurses' Work Environment

A 2002 IOM report titled *Keeping Patients Safe: Transforming the Work Environment of Nurses* examines the relationship between nursing's work environment and patient safety. The reports discusses issues such as shift length, the effects of night shifts and rotating shift assignments on circadian rhythms and work performance, and the impact of temporary staff on patient safety and the quality of care.[4] Research

continues to demonstrate the relationship between adequate RN staffing and patient safety. Studies have shown that patients are more likely to develop pneumonia, cardiac arrest, urinary tract infections, and upper GI bleeding, and experience longer hospital stays in hospitals with low nurse staffing levels.[2] Specifically, these problems occur when there are few RNs compared to licensed practical nurses or nurses aides or in situations in which RNs are not able to spend adequate time assessing and monitoring patients.[3] Long working hours also affect the ability to provide safe care. An AHRQ study found that nurses who worked more than 12 consecutive hours or who worked unplanned overtime were three times more likely than other nurses to make medication errors.[13] Long hours increase the potential for adverse events because caregiver fatigue results in decreased energy, slower reaction time, and less focus on detail.[2]

Power in Numbers

Nurses are members of the largest profession in healthcare and are responsible for most direct patient care.[10] Nurses also interact with other healthcare team members who provide patient care, as well as with personnel in other organizations across the continuum of care. Teamwork with other health providers is vital because inadequate communication about patient risk for harm is the basis of many medical errors.

The chance of errors increases as patients transfer from one healthcare setting to another. Take the example of the 78-year-old woman who aspirated and died after surgery. A root-cause analysis would have revealed that inadequate communication between the nursing home where the patient lived and hospital set in motion an event with tragic consequences. Because of poor dentition and swallowing problems, the patient received only pureed food while in the nursing home. Lacking this information, the hospital staff provided her with a regular diet after surgery, and her impaired swallowing resulted in the fatal aspiration of foods and fluids.[14] This unfortunate outcome could have been prevented if systems had been developed to communicate this type of risk from the nursing home to the hospital and to assess aspiration risk.

Nurses are vital gatekeepers in promoting quality of care and preventing errors. They are often in an ideal position to raise awareness of problems waiting to happen. Nurses must be empowered to know how and when to speak up to protect patients. But nurses face barriers that may make them reluctant to speak out. The traditional hierarchical reporting structure of healthcare, the risk of having to confront a colleague, a perception that safety problems are simply part of healthcare, a concern about support from coworkers, and a fear of retaliation may all be impediments for nurses who identify risks to patient safety.[10] Healthcare organizations should recruit nurses to serve on policy and procedure and safety committees, where a nursing perspective on patient safety is essential. When safety risks occur that can't wait for committee action, nurses need to find a way to speak up to fulfill their role as patient advocates. The Joint Commission requires hospitals to inform their staff that any employee who has concerns about safety or the quality of care may raise these concerns to the commission without being subject to retribution.[10] Nurses should also consult their state boards of nursing to learn about whistle-blower protections for healthcare professionals who raise patient safety issues. In every healthcare setting, nurses are in an excellent position not only to identify problems, but to help identify problems behind the problems.[9]

Nurses have many resources to help them fulfill their safety advocacy role. The three-volume AHRQ publication *Patient Safety and Quality: An Evidence-Based Handbook for Nurses* is invaluable. Volume 1 focuses on patient safety and quality, evidence-based practice, and patient-centered care. Volume 2 addresses the impact of the nursing work environment on patient safety and highlights critical opportunities for making patient care safer. Volume 3 provides tools for quality improvement and patient safety. The handbook also summarizes the latest research in vital patient care management areas, including fall prevention, pediatric safety and quality of care, pain assessment and management, reduction of the functional decline in the elderly, and the medical management of community-dwelling adults. The Joint Commission publication *Front Line of Defense: The Role of Nurses in Preventing Sentinel Events* describes real-life sentinel events and nursing's role in identifying root causes and implementing prevention strategies.

Taking the Lead

In response to research showing the impact of organizational culture on patient safety, the Joint Commission has established new leadership standards that require organizations to establish and maintain a culture of safety, conduct quality evaluations, and use evaluation results to make changes to improve healthcare safety and quality.[15] Organizational leaders must involve nurses, members of the largest healthcare profession, in evaluating care and designing ways to promote and maintain a culture of safety. Nurses can also continue to advocate for organizational practices and public policies that support safer work environments, including adequate staffing ratios, the elimination of mandatory overtime, and whistle-blower protections.[16] By participating in safety initiatives in their employing agencies, nurses can offer vital perspectives that can help build cultures of safety throughout the U.S. healthcare system.

Resources from the Agency for Healthcare Research and Quality

- Patient safety e-newsletter: www.ahrq.gov/news/ptsnews.htm
- Nursing Web site: www.ahrq.gov/about/nursing
- Medical errors and patient safety Web site: www.ahrq.gov/browse/mederrbr.htm
- Web M & M (morbidity and mortality), a forum focusing on patient safety; nurses can contribute case studies: http://webmm.ahrq.gov