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ADVERSE DRUG REACTION REPORTING

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MEDICATION ERRORS: REPORTING AND PROCESSING

INCIDENT REPORTING FORM

HIGH – RISK MEDICATIONS

CHEMOTHERAPY HANDLING

INVESTIGATIONAL MEDICATIONS

MEDICATION MANAGEMENT EVALUATION

LICENSE AND PROFESSIONAL STANDARDS

MULTIDOSE VIALS

PERFORMANCE IMPROVEMENT

Appendix A

LOOK-ALIKE, SOUND ALIKE MEDICATION MANAGEMENT

PRESCRIBING/ORDERING GENERAL PRACTICES

ABBREVIATIONS NOT APPROVED FOR USE

VERBAL, TELEPHONE, AND WRITTEN ORDERED FOR MEDICATION

PHARMACIST ORDER VERIFICATION

SAFE MEDICATION PREPARATION AND DISPENSING

DRUG LABELING STANDARDS

UNIT DOSE DISTRIBUTION SYSTEM

GENERAL DRUG DISTRIBUTION

MEDICATION ACCESS WHILE PHARMACY SERVICES ARE CLOSED

P.M./NIGHT MEDICATION RETRIEVAL

MEDICATION RECALLS

UNUSABLE AND OUTDATED DRUGS
Patient Privacy and Information Security

Policy:

It is the policy of Cochise Regional Hospital to maintain an individual’s right to privacy and confidentiality of information. Information concerning patients, visitors, and staff shall be managed with the highest degree of appropriateness and confidentiality, pursuant to hospital-wide policies and procedures. The Pharmacy Services department will abide by all applicable federal, state, and local legal requirements, as well as hospital privacy policies and procedures to protect patient information and patient medication records.
MEDICATION DISCREPANCY CORRECTIVE ACTION

Policy:

Cochise Regional Hospital implements corrective action in the event of medication discrepancy at the discretion of the unit Clinical Team Leader.

Procedure:

In the event of medication discrepancy, an Incident Report is completed by the person noting the discrepancy. Pharmacist will generate Nursing Unit Narcotic Discrepancy forms are forwarded to the unit Clinical Team Leader and Risk Management.

After review of Incident Reports and Nursing Unit Narcotic Discrepancy form, the unit Clinical Team Leader will implement the Medication Discrepancy Correction Action consisting of:

1. Medication Discrepancy Corrective Action will last one month.
2. RN is required to review the Arizona Nurse Practice Act and acknowledge that he/she understand the Arizona Nurse Practice Act.
3. RN is required to review the Medication Administration Policy and acknowledge that he/she understands the Medication Administration Policy.
4. Subject to immediate and random drug testing at discretion of Clinical Team Leader.
5. After hours Pharmacy access denied for one month.
6. RN performs the first two weeks of self assessment of medical records ensuring that all records are complete and there are no medications discrepancies prior to completing shift; Self assessments are turned in to the Clinical Team Leader at conclusion of shift.
7. Clinical Team Leader reviews the final two weeks of medical records ensuring that all records are complete and there are no medication discrepancies.
8. At conclusion of one month Medication Discrepancy Correction Action, Clinical Team Leader will meet with RN to review progress; Clinical Team Leader may provide additional counseling at this time or extend Medication Discrepancy Correction Action an additional month.
9. CRH Progressive Discipline systems will also be implemented at discretion of unit Clinical Team Leader in consultation with Director of Nursing and Human Resources.
PHARMACIST ASSESSMENT OF PATIENTS

Policy:

• The Pharmacist maybe asked to perform an assessment of a patient by the nurse or physician. The assessment may include, but is not necessarily limited to:
  o Medical History;
  o Patient’s education needs in regards to medications;
  o Ability to tolerate certain medications.

Procedures:

• The Pharmacist may be requested to interview patients with complicated histories of medication use or drug allergies. Findings will be documented in the clinical notes of the patient’s medical record in Empower.

• The Pharmacist may be requested to interview the patients or families to determine their ability, willingness, and readiness to learn important aspects of medication to be used after discharge. Significant findings will be documented in the clinical notes of the patient’s medical record.

• The Pharmacist may be requested to assess a patient’s physiological ability to metabolize and/or eliminate selected drugs. Significant among these findings are renal and hepatic clearance rate for patients over 65 years of age or those with other risk factors. Significant findings will be documented in the clinical notes.
FOOD – DRUG INTERACTIONS

Policy:

The Pharmacy Services, Nursing Services, and Dietary Services departments will work together to educate patients and/or their families about potential food-drug interactions. Patients who will be discharged on drugs with potentially significant food-drug interactions will receive counseling on dietary restrictions prior to discharge.

Definition:

A clinically significant interaction is one that causes a therapeutic failure and/or toxicity in the patient.

Procedure:

• The Pharmacy and Therapeutics Committee will maintain a list of potentially significant food-drug interactions as necessary, which may present significant risk to this hospital’s patients.

• The patient’s medication profile will provide the source of screening for potential food-drug interactions. When new medications are added to a patient’s regime, a pharmacist or nurse will flag potential food-drug interactions, with the assistance of the hospital’s approved list.

• The patient’s Nurse will instruct patients who are at risk for food-drug interactions, or the patient’s agent, using preprinted food-drug literature, Handouts will be given to patients.

• A nurse will document the teaching in the patient’s chart in the clinical notes in the patient’s electronic health record within Empower.

• If alternate therapy is warranted, the Nurse or Pharmacist may discuss options with the Physician.
PATIENT EDUCATION ABOUT DISCHARGE MEDICATIONS

Policy:

To ease the transition from hospital to home, the patient and/or family will receive appropriate education about medications provided at discharge. If appropriate, based on the complexity of therapy, and if anticipated prior to discharge, such education will begin before the day of discharge. Education for patients about discharge medications shall be a multidisciplinary responsibility.

Procedures:

- The nurse and physician shall provide initial education about discharge prescriptions.

- When therapy is complex and more resources are required, the Pharmacist may provide additional patient and/or family education. Selected drugs when first prescribed (i.e., warfarin) may be designated for pharmacist-provided education in anticipation of discharge.

- A Pharmacist may provide direct education to patients through medication groups and/or individual counseling, or by indirect education by providing information to the hospital personnel (i.e. nurse) who will do the direct patient education.

- Documentation of education about discharge medications will be recorded in the patient's medical record, in the clinical notes, within Empower.

- For complex therapy, a program of self-medication teaching may be appropriate (see Patient Education about Self-Medication policy).

- Other teaching materials may also be used. These may include pictures, posters, video and audio tapes.

- A medication group may be provided for patients and/or their caregivers as a regular part of the education program.

- A Pharmacist will be available during normal Pharmacy Services business hours to answer drug information questions from patients and their caregivers. The on-call pharmacist will answer drug information calls when Pharmacy Services is closed.
PATIENT EDUCATION ABOUT SELF-MEDICATION

Policy:

A system will be implemented and maintained to ensure the safe use of medications by the patient during hospitalization and to increase the potential for effective medication use by the patient after discharge on a complex regime of drug therapy, education shall begin prior to discharge, so that patients may self-medicate under observation.

Procedure:

- The Physician will initiate an order to allow the patient and/or family to self-medicate.
- First, the Nurse or Pharmacist will evaluate the patient to determine that the patient is an appropriate candidate for self-medication, and develop an education plan.
- If the patient is a good candidate for self-medication, the patient will be instructed about the correct use of his/her medication(s) and will be asked to request each dose from the nurse, according to the dosing schedule(s).
- After receiving instructions, the patient will be given the medications for bedside storage and he/she will manipulate and administer the medication to his/her. The patient will tell the nurse when a dose has been administered and the nurse shall record it in intake record.
LATEX SAFE PHARMACY CARE

Policy:

In conjunction with the hospital’s latex allergy policy, Pharmacy Services will provide latex – safe pharmaceutical care for patients announcing or exhibiting a latex allergy.

Procedure:

Pharmacy Services shall be notified immediately of latex – allergic patient before medications are dispensed. To provide latex – safe medication use, Pharmacy services shall:

• Provide IV medications in glass ampoules, when available.

• Observe the “one – stick” principle regarding medications vials, IV bags, etc. :  
  o All medication vials, bags, etc., will be needle-punctured only once when possible, and any unused medication should be discarded. If a vial is a multi-dose vial – then a mini spike dispensing pin can be inserted into the vial closure and used to remove multiple medication doses without the need for subsequent punctures.

• Prepare/Dispense injectable products in latex-free syringes.

• Avoid puncture of latex injection ports on IV bags bottles, and tubing when possible. Flush all tubing before use. Use stopcock for medications. Use polymer injection caps for PRN adapters in needleless systems. Cover tubing Y-sites.

• Wear non-latex gloves (i.e. Nitril) when required in preparing the patient’s IV medications and fluids.

• Wipe the inside surfaces of the laminar airflow hood with 70% isopropyl alcohol before preparing IV products for latex-allergic patients.

• Assist nursing staff with maintaining a latex-free crash cart using recommendations by the American Latex Allergy Association (A.L.E.R.T.).

References:


http://www.latexdrugs.com
DRUG FORMULARY

Policy:

• The Pharmacy and Therapeutics (P&T) Committee will develop a system whereby drugs that are considered most useful for patient care will be evaluated, appraised, selected, and stocked within the hospital. The criteria for selecting medications to be included in the formulary will be based on need, efficacy, safety risk, potential error and cost.

• The hospital’s drug formulary shall be broadly constructed and maintained in such a way that the need for use of “non-formulary” drugs is minimized. It is recognized that on occasion the use of a “non-formulary” drug may be indicated for a particular patient. The Pharmacy and Therapeutics Committee will develop guidelines for the provision of “non-formulary” drugs and review the use of non-formulary drugs.

Definitions:

• Formulary Drugs: A drug approved by the P&T committee for inclusion on the hospital formulary.
  Formulary drugs are generally available for routine use.

• Provisional Drugs: A drug approved by the P&T committee for evaluation – pending inclusion on the hospital formulary. Provisional drugs are generally available for routine use during the evaluation period.
  The results of medication use evaluation will determine final formulary status.

• Restricted Drugs: A drug approved by the P&T committee for inclusion on the hospital formulary, however, prescribing of this drug will be limited in scope (e.g., to a particular indication(s), or medical service).

• Non-Formulary Drugs: Any drug that has not been reviewed by the P&T committee or has been reviewed and denied inclusion on the formulary. Non-formulary drugs will be stocked by Pharmacy Services and will not be available for routine use. However, non-formulary drugs may be ordered for individual patients when sound pharmacologic and/or therapeutic considerations dictate.

Procedure:

• Addition: The pharmacist or any member of the medical staff may petition the committee in writing to review a drug for formulary inclusion. The request shall address the reason for the inclusion of the new agent or the unmet need. Pharmacy Services will prepare a review of the available data in collaboration with the requesting physician. The requestor will be invited to discuss the petition with the committee if needed.

• Criteria:
  - Population: Primary consideration will be given to those drugs determined to be useful for the diseases or conditions treated in the hospital.
  - Effectiveness: Primary consideration will be given to the relative safety and efficacy of drugs.
    Drugs will be included in the formulary as generic entities. Selection of the source of generic drugs will be delegated to Pharmacy Services unless the committee identifies specific issues with bioequivalence. Such exceptions will be noted in the formulary.
  - Risk: It is recognized that all drug therapies have inherent risks. Initial evaluation by the P&T committee is based on the documented adverse event profile; especially true with new drugs.
    Ongoing monitoring of the adverse event profile in this hospital and in the literature will be used to evaluate all formulary drugs after inclusion. Risk included potential for error in:
    - Prescribing or Ordering
    - Preparation
    - Dispensing
    - Administration
Consideration of potential error is included in the initial and ongoing evaluation of formulary drugs. In an effort to prevent medication errors and reduce risk, Formulary drugs will be obtained in “unit dose” or “single-use” volume whenever possible. Medications that have been determined to have a higher risk of error potential and will be handled with the precautions as with all high-risk drugs (i.e., labeling, storage, dispensing, and secondary precautions).

- **Drug monitoring:** Prior to the dispensing and/or administration of a newly added drug to the formulary, the hospital and pharmacy will assure that there is a mechanism in place to monitor patient response to the drug. In some cases this may require a process for administering a “test dose” to the patient or obtaining drug levels, if appropriate. Specific drugs may require specific clinical tests. If a newly added drug requires a specific test, the drug will not be dispensed or administered until the hospital has the known capability to conduct the required monitoring (i.e. required reagent or test kit available in Laboratory Services, and/or medical and nursing staffs educated about the monitoring or laboratory testing requirements).

- **Cost:** Secondary consideration will be given to acquisition cost and other costs associated with the use of a particular drug. Relative cost within drug classes will also be considered. It is acknowledged that drug cost may in some cases have an inverse relationship to overall treatment costs.

- **Deletion:** Formulary deletion requests will be initiated by pharmacy services based on trends in product use or changes in the safety profile. Review may be drug specific or by therapeutic classes.

- **Review:** The entire formulary will be published and distributed to the medical, nursing, pharmacy staff, and others as needed. The following information regarding the medication will be provided:
  - Trade and generic names
  - Therapeutic category
  - Medication strengths
  - Dosage forms
  - Restrictions

  Additionally, the formulary may be appended to include:
  - List if abbreviations and the “Do Not Use” abbreviations
  - Metric to apothecary conversion charts
  - Drug compatibility tables
  - Antimicrobial susceptibility tables
  - Therapeutic drug monitoring guidelines
  - Antidote list
  - Sound-alike, Look-alike lists
  - IV guidelines
  - Potentially significant food-drug interactions

- **Periodically,** changes to the formulary will be communicated to the medical, nursing and pharmacy staffs, and others as needed, through written communications and/or educational programs. The entire formulary is reviewed annually. The committee evaluates the formulary through medication use evaluations and both internal and external historical adverse event data.

- **Non-Formulary:** When a non-formulary drug is requested, the Pharmacist will contact the nurse or prescriber to inform him/her of the non-formulary status of the drug and to provide information about formulary alternatives.
  - If it is determined that no alternative drugs are acceptable, Pharmacy Services will attempt to procure the drug in a timely fashion. However, some delay should be expected since non-formulary drugs must be secured from outside sources.
  - If a prescriber expects to order a non-formulary drug on a regular basis, he/she should submit a formulary review request to the committee.
- Non-formulary drugs ordered that carry a greater risk for error potential, such as sound-alike, look-alike drugs will be labeled as “high-risk” and will be handled with high-risk precautions. Effort will be made to reduce use of non-formulary drugs that carry a higher risk of error.
- Pharmacy Services shall maintain records of all use of non-formulary drugs. Periodically the P&T committee will review these records for consideration of possible additions to the formulary and/or the need for education about the formulary.
PROCURING EMERGENCY MEDICATION SUPPLIES

Policy:

The pharmacy and Therapeutics (P&T) Committee will develop a system whereby in the event of an acute medication shortage or outage, following a local or biological disaster or weather-related emergency, medications may be procured from alternative local sources until normal supply sources are available. It is not the policy of this hospital to stockpile medications, See also Borrowing Medication policy.

Procedure:

- **In a non-bioterrorism-related, local disaster or infectious outbreak:** Medications may be borrowed from the following local area hospitals and pharmacies.
  - Sierra Vista Regional Medical Center 520-417-3210, 3211
  - Copper Queen Community Hospital 520-432-659, 6598

In a weather-related local disaster: If severe weather conditions are predicted, such as with hurricanes, snow blizzards and whiteouts, ice storms, Pharmacy Services will attempt to procure additional supplies through normal procedures. If unable to procure additional stock, medications may be borrowed from the approved local area hospitals and pharmacies on the list above.

- **In case of an earthquake:** the hospital's emergency disaster plan will be followed. The procedure for the procurement of necessary medications will follow those outlined above for a non-bioterrorism-related, local disaster or infectious outbreak.

- **In a bioterrorism-related, local disaster or infectious outbreak:** The Centers for Disease Control (CDC) is prepared to handle these types of disasters through their National Strategic Drug Stockpile. Medications and supplies will be rushed within 72 hours to areas that are affected. Therefore, it is not the policy of this hospital to stockpile additional medications, such as antibiotics, which will be handled by the CDC.

- Pharmacy Services will be notified as soon as an exposure is known and will be given an estimate of how many patients may have been exposed.

- All medications procured during an emergency or disaster will be stored safely and securely, while following the same approved policies for medications procured during normal conditions and via normally supply methods.

- If an item is unavailable or cannot be obtained in a timely manner, the Pharmacist or the Nursing Supervisor, if after Pharmacy hours, will notify the prescriber and an alternative item will be prescribed, if appropriate.

- Medication obtained from outside pharmacies must have properly labeled containers. The label must include the name of the medication, strength, amount, and lot number and expiration date. Any medication received that does not meet these labeling requirements will be returned to the originating pharmacy or destroyed by a pharmacist.

- When an emergency drug is obtained from an outside pharmacy, the Loaning/Borrowing Medication policy and procedure will be followed. See the Borrowing Medications policy.

- The P&T Committee will review this policy and procedure annually and anytime there is a proposed change in local hospital and pharmacy suppliers or courier services.

- All licensed independent practitioners with medication prescribing privileges will be provided information about procedures for procuring drugs during medication shortages, outages or emergency/disasters and the possible need of prescribing alternative medications.
A Pharmacist may refer to the chart below to determine the available stock on hand, as well as which nearby facilities may stock the necessary medications. The listed medications will be maintained in Pharmacy stock at all times (unless unavailable due to situations beyond Pharmacy’s control), and supplied to the hospital as needed. A pre-determined quality of potentially needed medications may be held “on reserve” at the hospital’s request with terms of such an arrangement mutually agreed upon by both parties.

**Medications stocked for Treatment and Prophylaxis of Infection by Bioterrorism Agents**

<table>
<thead>
<tr>
<th>Medication</th>
<th>Preferred/Alternative</th>
<th>Infectious Illness*</th>
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</thead>
<tbody>
<tr>
<td>Amoxicillin P.O.</td>
<td>Alternative</td>
<td>A (PEP)</td>
</tr>
<tr>
<td>Chloramphenicol I.V.</td>
<td>Alternative</td>
<td>A, P (treat)</td>
</tr>
<tr>
<td>Ciprofloxacin I.V.</td>
<td>Preferred</td>
<td>A (treat)</td>
</tr>
<tr>
<td>Ciprofloxacin P.O.</td>
<td>Preferred</td>
<td>A (PEP)</td>
</tr>
<tr>
<td>Doxycycline I.V.</td>
<td>Alternative</td>
<td>A, P, T (treat)</td>
</tr>
<tr>
<td>Doxycycline P.O.</td>
<td>Preferred</td>
<td>A, P, T (PEP); B (treat)</td>
</tr>
<tr>
<td>Erythromycin I.V.</td>
<td>Alternative</td>
<td>A (treat)</td>
</tr>
<tr>
<td>Erythromycin P.O.</td>
<td>Alternative</td>
<td>A (PEP)</td>
</tr>
<tr>
<td>Gentamicin I.M.</td>
<td>Alternative</td>
<td>A, P, T (treat)</td>
</tr>
<tr>
<td>Levofloxacin I.V.</td>
<td>Alternative</td>
<td>A (treat)</td>
</tr>
<tr>
<td>Levofloxacin P.O.</td>
<td>Preferred</td>
<td>A (PEP)</td>
</tr>
<tr>
<td>Penicillin I.V.</td>
<td>Alternative</td>
<td>A (treat)</td>
</tr>
<tr>
<td>Rifampin P.O.</td>
<td>Preferred</td>
<td>B (treat)</td>
</tr>
<tr>
<td>Streptomycin I.M.</td>
<td>Preferred</td>
<td>P, T (treat)</td>
</tr>
<tr>
<td>Tetracycline P.O.</td>
<td>Preferred</td>
<td>P, T (PEP); Q (treat)</td>
</tr>
</tbody>
</table>

*A = anthrax, PEP = post-exposure prophylaxis, P = Plague, treat = treatments, T = tularemia, B = brucellosis, Q = Q fever.*

- Supplies of emergency and /or supportive medications (airway, breathing, circulation) and antidote kits (e.g. cyanide poisoning) will be maintained in appropriate quantities at all times. Appropriate quantities shall be determined via the P&T Committee and Medical Staff.

- Pharmacy Services may Obtain assistance from resources inside and outside the local area:
  - Local Health Department Phone Number(s)
  - Poison Control Center
    - 1-800-222-1222
  - State Department for Public Health Phone Number(s)
  - Domestic Preparedness (partnership of federal agencies)
    - 800-424-8802 (emergency)
    - 800-368-6498 (non-emergency/information/planning)
  - U.S. Public Health Service
    - Emergency Coordinator
      - 206-615-2469
  - Centers for Disease Control and Prevention Office of Bioterrorism, Preparedness, and Response
    - 404-639-0385
  - Center for Disease Control and Prevention
    - Emergency Response Office
      - 770-488-7100
• In general, the supply of potentially needed medications will be self-sufficient for at least 24 hours after an incident, the length of time to obtain outside assistance. If the CDC office of Bioterrorism is notified, the director of the CDC may activate the National Strategic Drug Stockpile Program, which should be available to the facility within approximately 12 hours. The National Stockpile is equipped to supply antidotes, vaccines, ventilators, and other supportive medical supplies.

• Pharmacy Services will participate in the hospital's planning process in order to assure appropriate inventoried of medications in the event of a bioterrorism incident.

• The Pharmacist’s role in the planning and implementing of a bioterrorism response plan is vital. The Pharmacist will provide up-to-date information on antimicrobial agents and vaccines, including availability, location, storage requirements, dosage, adverse effects, and administration medications, antidotes, and information; provide dosage and vaccination schedules for both treatment and prophylaxis; and counsel patients on the proper course of therapy, adverse effects and follow-up care.

• Additional information regarding preparation for emergencies or bioterrorism incidents may be obtained at
  www.bt.cdc.gov
  www.ashp.org/public/proad/emergency/em.prep.html

• Information regarding symptoms, treatments, isolation precautions, etc. is outlined in Appendix A.

Appendix A, Recommended Antidotes for Bioterrorism Agents

Anthrax

Onset of symptoms: 1-5 days.
Treatment (symptomatic): For first-line treatment, ciprofloxacin 400 mg. I.V. q 12 hr. For second-line treatment, doxycycline 200 mg I.V. followed by 100 mg I.V. q 12 hr OR penicillin 2 million units I.V. q 4 hr 11 plus streptomycin 30 mg/kg I.M. or I.V. daily (or gentamicin). Supportive therapy for shock, fluid volume deficit, and airway adequacy may be indicated.
Post exposure prophylaxis: In adults (including pregnant women), provide 4 wk until 3 doses of vaccine are given or for 8 wk if vaccine is unavailable. For first-line prophylaxis, ciprofloxacin 500 mg P.O. bid. OR levofloxacin 500 mg P.O. daily. For second-line prophylaxis is adults, doxycycline 100 mg P.O. bid. OR amoxicillin 500 mg P.O. q 8 hr (if susceptibility is confirmed). In children, for first-line prophylaxis, ciprofloxacin 20-30mg/kg/day P.O. q 12 hr OR amoxicillin adult dosage in children >20 kg and 40 mg/kg/day in divided doses q 8 hr in children <20 kg. Isolation precautions: Standard precautions.
Comments: Vaccine when antidote is given if the vaccine (obtained from CDC) is available (for Bioport Corporation vaccine, give 0.5 ml S.C. as soon as possible after exposure, then at 2 and 4 wk). Once symptoms appear, treatment is almost always ineffective. Other therapeutic alternatives include erythromycin and chloramphenicol.

Botulinum Toxins

Onset of symptoms: 1-5 days.
Treatment (symptomatic): Trivalent equine antitoxin for serotypes A, B, and E (available from CDC).
Postexposure prophylaxis: None.
Isolation precautions: Standard precautions.
Comments: Risk of anaphylaxis; perform skin test for horse serum sensitivity before administering equine antitoxin. May also cause serum sickness.

Brucellosis

Onset of symptoms: 5-60 days (occasionally, months).
Treatment (symptomatic): Doxycycline 200 mg/day P.O. plus rifampin 600-900 mg/day P.O. x 6 wk OR
doxycycline 200 mg/day P.O. x 6 wk plus streptomycin 15 mg/kg bid. OR gentamicin 1.5 mg/kg q 8 hr I.M. for first 10 days.

Postexposure prophylaxis: Doxycycline and rifampin x 3 wk.
Isolation precautions: Standard; contact isolation if draining lesions present.

**Plague**

Onset of symptoms: 2-3 days.
Treatment (symptomatic): For pneumonic plague, streptomycin 15 mg/kg I.M. bid x 10 days OR gentamicin 1.5 mg/kg q 8 hr. I.M. x 10 days OR doxycycline 200 mg I.V. once, then 100 mg I.V. q 12 hr x 10 – 14 days.
Dor plague meningitis, chloramphenicol 25 mg/kg I.V., then 60 mg/kg/day in 4 divided doses.
Postexposure prophylaxis: For first-line prophylaxis in adults (including pregnant women) and children, ciprofloxacin 500 mg P.O. four times daily.
Isolation precautions: For pneumonic plague, droplet precautions until patient had been treated for 3 days.
Comments: Greer inactivated vaccine: 1 MI at 1-3 and 3-6 months (not protective against pneumonic plague). Currently no vaccines are commercially available to the general public.

**Q fever**

Onset of symptoms: 10-40 days.
Treatment (symptomatic): Doxycycline 100 mg P.O. q 12 hr x 5-7 days OR tetracycline 500 mg P.O. q 6 hr x 5-7 days.
Postexposure prophylaxis: Start doxycycline 8-12 days after exposure x 5 days; start tetracycline after exposure after 8-12 day x 5 days.
Isolation precautions: Standard precautions.

**Smallpox**

Onset of symptoms: 7-17 days.
Treatment (symptomatic): Cidofovir I.V. effective in vitro; dosage not known. Also ribavirin I.V. (however, only P.O. and aerosolized formulations are available).
Postexposure prophylaxis: Vaccine immune globulin 0.6MI/kg I.M. (give within 3 days of exposure; best if given within 24 hr).
Isolation precautions: Airborne precautions.
Comments: if > 3yr. since last vaccination, pre-exposure and post exposure vaccinations are recommended. Currently there are no vaccines commercially available to the general public.

**Staphylococcal enterotoxin B**

Onset of symptoms: 1-6 hr.
Treatment (symptomatic): ventilator support and other supportive care.
Post exposure prophylaxis: None.
Isolation precautions: Standard precautions.
Comments: Vomiting and diarrhea may occur if toxin is ingested.

**Tularemia**

One set of symptoms: 2-10 days.
Treatment (symptomatic): Streptomycin 15 mg/kg bid. I.M. x 10 – 14 days OR gentamicin 3-5 mg/kg/day I.M. x 10-14 days
Post exposure prophylaxis: Doxycycline 100 mg P.O. q 12 hr x 14 days OR tetracycline 2g/day P.O. x 14 days.
Isolation precautions: Standard precautions.
Comments: There is a live attenuated vaccine, but currently no vaccines are commercially available to the general public.
Viral encephalitis

Onset of symptoms: Venezuelan equine encephalitis (VEE), 2-6 days; Easter equine encephalitis (EEE) and Western equine encephalitis (WEE), 7-14 days.
Treatment (symptomatic): Supportive therapy (analgesics and anticonvulsants as needed).
Post exposure prophylaxis: None.
Isolation precautions: Standard precautions.
Comments: There are vaccines for VEE, EEE, and WEE, but currently no vaccines are commercially available to the general public.

Viral hemorrhagic fevers (Congo-Crimean hemorrhagic fever, fevers caused by arena viruses)

Onset of symptoms: 4-21 days.
Treatment (symptomatic): Ribavirin 30 mg/kg I.V. initially, the 15 mg/kg I.V. q 6 hr x 4 days, then 7.5 mg/kg I.V. q 8 hr x 6 days (however, I.V. ribavirin not commercially available).
Postecposure prophylaxis: None.
Isolation precautions: Contact precautions; additional precautions in case of mass bleeding.
Comments: Aggressively manage secondary infections and hypotension.

BORROWING MEDICATIONS

Policy:
Pharmacy Services may arrange to borrow or buy medications from a neighboring pharmacy, when a medication is needed immediately but is not available in stock. See also Procuring Emergency Medication Supplies policy.

Procedure:

- In the event that an unavailable drug is needed for a patient and it is not in the best interest of the patient to wait until the drug can be obtained through the normal supply channels, Pharmacy Services staff will obtain the medication from an outside source.

- An on-duty Pharmacist or the on-call Pharmacist will assess the need for obtaining the medication. Therapeutically equivalent medications may be available and may be recommended by the Pharmacist. The prescriber will be offered these alternatives, if available.

- If no substitution can be made, the Pharmacist on duty or on call will coordinate the borrowing process by contacting the approved outside pharmacy source. The Pharmacist will notify the nurse who is caring for the patient about the delay and the projected time of arrival. The prescriber will then be notified of the possible delay.

- Arrangements to obtain the item may be made with the P&T-approved outside pharmacies listed below. If a needed drug is not locally available, utilize the Cardinal Drugs emergency drop shipment procedure:
  - Call Cardinal
    - Regular business hours 623-293-5200 or 1-866-816-4120 from 0700-1900 CST
    - Sunday through Thursday evenings at 623-293-5202
    - Emergency pager service on weekends only is 1-888-778-1503
  - Have Cardinal Account number (163779) and item number ready.

- May also consider attempting to borrow from University Medical Center or Tucson Medical Center pharmacy if can arrange for a courier or employee pick-up and delivery.

- Arrangements will be made for delivery through approved sources. During normal Pharmacy hours, a Pharmacy staff member may pick-up the medication. When the pharmacy is closed, medication may be delivered by an approved delivery method or service.

- If the drug is needed for an emergency after regular Pharmacy Service hours, the Director of Pharmacy will be contacted immediately. The Director will work to obtain the drug and arrange quick delivery.

- Drugs loaned to or borrowed from other hospitals or pharmacies will be recorded on a Loan/Borrow Record. This record will include the name of the medication, strength, amount, lot number and expiration date. It will also include the name of the lending/borrowing pharmacy, the date of the loan and the date of repayment.

- Medication obtained from outside pharmacies must be properly labeled. The label must include the name of the medication, strength, amount, lot number and expiration date. Any received medication not meeting this policy will be returned, unused, to the originating pharmacy or destroyed by the Pharmacist.

- Borrowed or loaned drugs will be returned as soon as possible and the record completed. If the exact same drug cannot be replaced, then another drug of equal value can be substituted if both parties agree and the records are accurate and complete.

- List of telephone numbers for local hospital and retail pharmacies:
  - Sierra Vista Regional Medical Center Inpatient Pharmacy – (520) 417-3210
  - Copper Queen Community Hospital Pharmacy – (520) 432-6597
GENERIC SUBSTITUTION

Policy:
In order to ensure high quality therapy and maintain good formulary management, the Pharmacy will automatically substitute state-approved generically equivalent medications, when possible and appropriate.

Definition:
Generic substitution is the interchange of drug products that contain the same active ingredients and are chemically identical in strength, concentration, dosage form, and routine of administration to the drug product prescribed. The interchange is designated a generic substitution.

Procedure:
• The Department of Pharmacy Services with the Medical Staff approval, will determine which generic drug(s) will be stocked in the pharmacy based upon cost or other dispensing/procurement issues. The pharmacy shall strive for product consistency to avoid unnecessary switching of products dispensed to patients. The Prescriber and pharmacist must exercise professional judgment to determine what is best for the patient. Prescribers have the prerogative to override a generic substitution and can do so by writing in medical order: “Do not substitute” or wording to that effect. If a specific brand name of drug or a specific generic brand is desired, the physician must request this.
THERAPEUTIC INTERCHANGE/AUTOMATIC DRUG SUBSTITUTION

Policy:

In order to endure high quality drug therapy and maintain good formulary system management, Pharmacy Services will therapeutically substitute appropriate medications determined by the medical staff.

Prescribers, in collaboration with pharmacists through Pharmacy and Therapeutics (P&T) Committee, will review available drugs within a therapeutic class and agree upon drugs that have equivalent therapeutic effects. Drugs within a therapeutic category may be considered interchangeable if they exhibit the same response in patients. Pharmacy Services will determine which drug or drugs within a designed therapeutic category will be stocked in the Pharmacy based upon cost or other procurement issues unless the P&T Committee specifies one product as the class representative.

Definition:

Drugs are considered therapeutically equivalent if they can be expected to produce essentially the same therapeutic outcome within the same acceptable level of risk. The drugs may be different chemical entities or the same chemical entity in a different dosage form. These drugs are then viewed as therapeutically interchangeable and permits the pharmacist to dispense a product that is different from the one prescribed, as predetermined by the medical staff via the P&T Committee. The interchange is designated a therapeutic substitution.

Procedure:

The Pharmacist will monitor medication orders for opportunities to therapeutically substitute medication classes, as approved by P&T Committee. Medication classes that have been approved for therapeutic substitution include:

- Pharmacy will maintain appropriate supplies of drugs designated as “therapeutic substitutes”.
- One or two medication may be chosen in a drug class as appropriate therapeutic substitutions. Upon a physician’s order for a drug on the substitution list, the pharmacist will dispense the approved therapeutic substitution medication predetermined by the Medical Staff via the P&T Committee.
- The pharmacist shall place or direct a change of order in the patient’s medical record. An example of the pharmacist’s/nurses note: “Per P&T Committee, X drug, route, dose, duration changed to Y drug, route, dose, duration.” When a change is made, the Pharmacist should ensure that appropriate monitoring and follow up are done to identify and prevent any unexpected or untoward patient response.
- The nurse will be notified that the drug has been substituted with the approved drug on the authority of the P&T Committee.
- A list of approved therapeutic substitution medications will be included in the Pharmacy Policy and procedure manual. This list is to be updated routinely as drugs are added or deleted.
DRUG SHORTAGES

Policy:

• Pharmaceutical product shortages can present serious threats to patient care and safety. Accordingly, this policy shall serve as a guide for determining and taking appropriate actions in response to a shortage of specific pharmaceuticals, including notifying medical and hospital staff, finding alternative supplies, recommending alternative therapies, and resolving the shortage.

• The Department of Pharmacy Services may learn of pharmaceutical shortages via various sources, including wholesaler information, pharmaceutical and pharmacy industry news, and direct information from the manufacturer. Additionally, designated pharmacy staff members shall routinely search the pharmacy literature/internet (ASHP, FDA websites) for updated product shortage information.

Procedures:

• When a drug shortage has been identified, the Pharmacy will verify the accuracy of the shortage notification with the manufacturer of the product, as well as the anticipated date of shortage resolution. Additionally, directions will be sought for ordering drugs on allocation or for emergency supplies.

Anticipated Shortages

Cases where pharmacy services are aware that a drug shortage of a formulary drug is scheduled to occur, but will not affect patient care for at least 60 more days:

• Pharmacy will review all available alternative therapeutic options and will present them at the next Pharmacy and Therapeutics Committee meeting for actions to take.

Unanticipated shortages

Cases where a drug shortage occurs with little or no notice and will affect patient care before the next Pharmacy and Therapeutics Committee Meeting.

• After confirming stock levels and estimating product utilization trends, the Director of Pharmacy Services will determine appropriate actions and recommendations to manage drug utilization within the hospital, if it appears that demand will exceed supply.

• The Director of Pharmacy will consult with physicians, nursing staff, hospital administration, and Pharmacy staff to devise methods and a plan for coping with the drug shortage.

• The director of Pharmacy Services will inform the Medical Chief of Staff in the drug unavailability may result in compromised patient care if prompt action is not taken.

• The director of Pharmacy and Medical Chief of Staff shall determine the appropriate action to take during a specific drug shortage. This decision may be made with or without consultation of the P&T Committee and/or Medical Staff.

• The immediate goal of all management strategies is to avoid any negative impact on patient care, including the risk of suboptimal therapy, postponed procedures, and increased risk of medication errors and adverse drug reactions.

• Stock levels will be maintained in preference to those areas where specific drug availability is essential (e.g. Code Carts, EMS supplies, etc.)
• Mechanisms for coping with drug shortage shall include:
  o Using alternative suppliers/wholesalers.
  o Identifying clinically appropriate uses of the drug in shortage and the lowest optimal dosing for current indications.
  o Use of an automatic interchange with Medical Chief of Staff and Pharmacy Director-approved substitutions. The automatic substitutions will be communicated to the Medical Staff and Nursing units by memoranda from Pharmacy.
  o Educating prescribers and caregivers about the drug shortage and the possible therapeutic alternatives, including potential adverse reactions and errors.
  o Controlling drug distribution by reducing the specific drug stocked throughout the hospital and by consolidating the inventory within the Pharmacy.
  o Developing strategies to decrease drug waste.
  o Limiting drug use to patients who meet specific criteria.
  o Limiting drug prescribing to prescribers who meet specific criteria.

• Education of care givers about current shortages shall be coordinated by the Director of Pharmacy Services.

• Prescribers, nursing administration, and hospital staff will be notified in a timely manner via e-mail, memos, newsletters and/or postings on the patient care units.

• Any practice change (temporary or permanent) occurring as the result of a drug shortage will be monitored to ensure patient safety and care levels are not compromised.

• When the shortage has resolved, or when adequate supply appears to be consistently available, the Director of Pharmacy Services shall notify the prescribers, nursing administration, and hospital staff.
DRUG STORAGE/INVENTORY INSPECTION

Policy:
Responsibility for control of medications within this hospital rests with Department of Pharmacy Services pharmacists and staff. The Department of Pharmacy Services shall be responsible for assuring that all drugs are properly labeled and stored, these policies will be approved by the P&T Committee.

Procedure:
• Storage:
  o Medications shall be stored under proper temperature and security conditions.
  o Medications may not be removed from the storage area by nursing or respiratory therapy until the time the medication is needed for patient administration. Medications obtained and not administered within one hour of receipt shall be returned to the appropriate storage area/container or to the Pharmacy, and from the time of medication receipt until the medication is administered or returned to the appropriate storage areas, the medication(s) shall be maintained under all appropriate storage requirements (i.e. temperature and security requirements).
  o Pharmacy Services is locked at all times. Access is limited to Pharmacists and Pharmacy Services personnel under the direct supervision of the Pharmacist during pharmacy hours. Authorizes nurses will have after-hours access.
  o Lockable medication carts or lockable medication bins in the medication room will be used to store unit-of-use medications in the patient medication dose system. These carts and the medication room must be secured, when not attended.
  o Medication rooms on patient care units, used for storage of floor stock medications, and medication night rooms will remain locked. Access is limited to licensed nursing personnel.
  o Floor stock medications will also be stored in a secure medication room dispensing system. Access will be limited to trained licensed nursing personnel.
  o All high-risk drugs and drugs with higher potential for dispensing error due to look-alike/sound-alike names will be stored in pharmacy in a red bin with a secondary caution label (“red alert” label), and may be segregated from other medications in order to alert staff for the necessity of taking additional dispensing precautions.
  o Refrigerators intended for drug storage will be monitored daily to ensure the correct temperature range. A record of temperature monitoring will be posted on the outside of each refrigerator. In addition, the refrigerator will be marked “For Drug Use Only” and will be locked, if in an unsecured area.
• Inspection:
  o All drug storage areas within the hospital will be inspected monthly by Pharmacy Services. A report of inspection will be maintained by Pharmacy Services. Reports of discrepancies will be shared with the supervising nurse of the unit involved. A copy of all discrepancies will also be forwarded to the Nurse Executive. (See Drug Storage Unit Inspection policy).
  o Expired, damaged, or contaminated medications will be removed from drug storage areas throughout the hospital and returned to Pharmacy Services during monthly inspections.
  o Expired, damaged, or contaminated medications will be stored in a separate, isolated area in Pharmacy Services, which had been designated for unusable drugs. The drugs will be disposed of properly.
  o See also policies for “Unsuitable/Unusable Drugs” and “Defective Drugs”.

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Reviewed/Revised: 6/2014
AUTOMATED DISPENSING MACHINES - INSPECTION AND INVENTORY

Policy:

- The automated dispensing machines (ADM) on each patient care unit will be inspected monthly, as part of the area medication inspection, by the Department of Pharmacy Services. This includes verifying the inventory of stocked medications, verifying expiration dates and ensuring that look-alike sound-alike medications are not stored in adjacent pockets.

- Also, Pharmacy Services personnel will verify that instructional reference materials for the automated dispensing machine are attached to the unit.

Procedure:

- Inventory Count/Expiration Dates:
  - The expiration date of all medications will be checked at the time of each restock.
  - Medications with an expiration date of no later than one day of the current state will be removed from the automatic dispensing machine. The earliest expiration date of all medications in a drawer will be entered as the expiration date on the automatic dispensing machine at time of restocking.

Monthly:

- Print a medication inventory report. Perform a physical count of at least 25 different medications in the automatic dispensing machine. If the physical count does not match with the report, enter the correct count. Check that the earliest expiration date on medications is entered correctly on the ADM. If not, correct the machine entry.

- Incorrect counts create discrepancies within the system. A discrepancy report (non-controlled) will be printed monthly by Pharmacy. These reports will be maintained in the pharmacy. The ADM inventory will be corrected accordingly.

- The discrepancy report will also be forwarded to patient care unit nurse managers on an as-needed basis so that measures are taken to prevent improper documentation and therefore reduce medication errors and lost charges.

Look-alike Sound-alike Medications:

- The Pharmacy Services personnel will ensure that look-alike medications are not stored in adjacent pockets in the automatic dispensing machine. Look-alike variables include: same packaging, same color label, same size vial and/or same color vial top, same drug in different doses, etc.

- Look-alike medications will be stored with a secondary caution label (red alert label), alerting staff to the necessity of taking additional dispensing precautions.

Medication in Automated Machine Refrigerated Units:

- The procedure for checking the inventory and expiration dates of refrigerated medications will be that same as above.

- The thermometer will be checked to ensure that the thermometer is in place and functioning correctly. The temperature range should be 36 degrees to 46 degrees F (2 to 8 degrees C). A record of refrigerator temperatures will be posted on the outside of each refrigerator unit and recorded daily.

Documentation:

- The inspection and inventory will be documented on the appropriate audit forms. These forms are maintained in the Department of Pharmacy Services.
CONTROLLED DRUGS – PHARMACY

Policy:

- The purchase, storage, distribution and accounting of controlled drugs will be done in accordance with all federal and state laws and standards of professional pharmacy practice.
- Pharmacy Services will be responsible for compliance with this policy.
- The Director of Pharmacy will be responsible for the proper safekeeping and utilization of all controlled substances within this hospital.
- The Department of Pharmacy shall use a perpetual inventory system for all Schedule II controlled substances. The Director of Pharmacy will be responsible for assuring the accuracy and completeness of the perpetual inventory system.

Procedure:

Registration:
- The Hospital will hold current registration with the Drug Enforcement Administration (DEA) and appropriate sale licensure. The Power of Attorney form will be kept by the administrator and also filed in the Pharmacy.

Purchase:
- Schedule II drugs must be ordered using DEA form 222. All other controlled substances are ordered through the usual pharmacy ordering process. The top two copies of the DEA 222 form will be sent to the Pharmacy drug wholesaler, with the pharmacy retaining the 3rd copy in a file designated for that purpose.
- The Director of Pharmacy or a designee under their supervision shall order controlled substances.
- Only those individuals noted on the Power of Attorney form are authorized to purchase Schedule II controlled substances and sign DEA 222 forms.

Receipt:
- When controlled drugs are received from the drug wholesaler, each item will be recorded in a controlled substance inventory log. The wholesaler's invoice number shall be noted on the completed DEA 222 form upon receipt of the order. The drug balance shall be verified against the inventory sheet, the purchaser copy (copy 3) completed DEA 111 form shall be attached to the copy of the wholesaler’s CII invoice and filed in a “CII Invoice” folder. Invoice for CIII, CIV and CV drugs will be filed in a separate invoice folder.
- The receipt of all Schedule II controlled substances will be documented in the perpetual inventory system.
- When controlled drugs are received, designated Pharmacy personnel will open the packaging in order to count the drugs and verify the condition and accuracy of the drugs received.
- Any discrepancies in ordering and shipment will be reported to the Director of Pharmacy. The entire shipment, along with the wholesaler’s shipping container, will be segregated and placed in a secure storage area of the Pharmacy to await investigation and resolution of the discrepancies.
• The receiving Pharmacist shall complete the remaining third copy of the DEA 222 form by indicating all Schedule II drug amounts received (on each line). The Pharmacist will date and sign the 222 form and attach to the corresponding copy of the wholesaler’s invoice, which will also be signed and dated.

• All unexecuted (blank) DEA 222 forms will be kept in a secure, locked location. 222 forms are logged upon receipt and a record kept for the execution of each (i.e. a perpetual inventory). DEA procedures will be followed for ordering new 222 forms.

• The amount of controlled drugs received will be documented in the perpetual inventory system.

• All invoices for controlled drugs in schedules II, III, IV and V will be maintained in readily retrievable files according to federal guidelines.

Records/Distribution:

• A transaction recorded for all controlled substances in schedules II, II, IV (C-II, C-III, and C-IV) will be maintained by the hospital. All C-II, C-III, and C-IV drugs will be dispensed by pharmacy to the locked cabinets in the secured med rooms on the nursing units. All controlled drugs stored in the main Pharmacy will be maintained.

• All transfers of controlled drugs outside the main Pharmacy will be recorded.

Discrepancy:

• When an error occurs in the inventory count, which cannot be explained on investigation, the error is to be reported using the hospital’s routine risk management reporting system. The Risk Manager and the Director of Pharmacy will review such reports monthly. In the event of a loss or theft, DEA guidelines will be followed for reporting the loss via the DEA form 106. In addition the following individuals with be contacted:
  - On-call Executive staff member
  - Police/Sheriff’s department (if break-in or robbery)
  - Arizona Board of Pharmacy
  - DEA (regional office)

Physician DEA Registration:

• Only physicians with current DEA registration numbers may prescribe controlled drugs. The DEA numbers of members of the medical staff will be documented and on file in Pharmacy Services. See policy 09.0-04

Storage of Controlled Drugs within the Pharmacy:

• All scheduled drugs will be stored in locked cabinets in the Pharmacy.

• Keys to all controlled drug cabinets will be kept by the Director of Pharmacy Services only.

• Entry into the controlled drug cabinets within the Pharmacy shall be restricted to Pharmacists or qualified pharmacy personnel under direct supervision of the pharmacist.

Returning Controlled Substances to Pharmacy:

• When a controlled substance is no longer being used in a particular patient care area, nursing personnel will notify Pharmacy Services. Pharmacy personnel will return it to the main Pharmacy.
• If the drug remains uncontaminated and usable, it will be returned to the main Pharmacy inventory and
the amount returned entered in the Pharmacy’s inventory log.

Security:

• All controlled drugs will be stored in double locked security cabinets/rooms or automated dispensing
machines. Only licensed personnel or authorized personnel under the direct supervision of licensed
personnel shall have access to controlled drugs stored within the hospital. Licensed personnel include
nurses, pharmacists and physicians. Unlicensed personnel under the direct supervision of pharmacists
include pharmacy technicians.

Theft:

• If theft of any amount of controlled substances is suspected, the Director of Pharmacy and the Director of
Nursing shall notify hospital administrators.

• All unauthorized losses shall be reported to the appropriate state and federal authorities. Loss of
significant amounts will be reported to the DEA using DEA for 106, Arizona Board of Pharmacy, and local
police department

Suspected Tampering of Controlled Drugs:

• Whenever an irregularity occurs, it must be reported immediately to the Director of Pharmacy.

• A medication occurrence or incident report will be generated.

• The suspected drugs will be separated from the other drugs in the inventory.

Destruction:

• Expired/unusable controlled substances will be isolated from the active inventory and kept in a secure
location. Expired CIII, CIV, and CV drugs will be returned to drug manufactures for credit when possible,
via an approved “reverse distributor”. Expired CIII drugs will be processed by a “reverse distributor” or
may be destroyed according to DEA and Arizona Board of Pharmacy regulations.

• Destruction of any controlled substances must be done in the presence of two licensed individuals who
are authorized to control and handle these drugs. The destruction of partial doses of controlled drugs
must be done and recorded by two nurses, or a nurse and pharmacist or presence of two pharmacists or
a pharmacist and a technician. The record of such destruction will be done on DEA forms. The
destruction of overstock or outdated controlled drugs will be performed in accordance with federal law by
licensed third parties.

Controlled Substance Inventory:

• A controlled substance inventory shall be done at least every year, on May 1, in accordance with Arizona
state law. A record will be maintained for at least two 2 years, per stated/federal regulations.

• An inventory shall be done whenever there is a change in Pharmacist-in-Charge.
CONTROLLED SUBSTANCES – DISPENSING AND FLOOR STOCK

Policy:

• All Drug Enforcement Agency (DEA) controlled substances are under the direct control of the Pharmacy Department. Distribution and administration of controlled substances will be performed according to federal and state laws and good pharmacy and nursing practice. The documentation and administration of controlled substances will be documented by the pharmacy, nursing services and any involved service or personnel. The pharmacy department shall be responsible for compliance with this policy.

• A transaction record for all controlled substances in Schedules II, III and IV (C-II, C-III and C-IV) will be maintained by the hospital. All C-II, C-III, and C-IV drugs shall be dispensed as floor stock in the secured cabinets in med rooms. On Acute Care and in the Emergency Room. All Schedule II, III and IV drugs shall be dispensed to the Operating room and PACU as non-retrievable form for the period of 7 years are required by law. Controlled substances will be supplied to off-site hospital clinics at the request of the clinic’s authorized DEA-Licensed practitioner(s) in accordance with applicable state and federal rules and regulations. All off-site clinics will be responsible for maintaining the same standards of controlled substances practices as described in this policy for all hospital areas.

Procedure:

Dispensing from Pharmacy

• A perpetual inventory record of all Schedule II, III and IV drugs stored in the main pharmacy will be maintained. See policy on Controlled Drugs-Pharmacy,

• When controlled drugs in scheduled II, III, and IV are transferred outside of the main pharmacy, a record of disposition will be recorded in the perpetual inventory record.

• All Schedule II substances on Acute Care and in Emergency room will be stored in secured locked cabinets separate from other inventory.

• Pharmacy Services will restock controlled substances in the secured cabinets in med rooms during normal business hours based on unit and patient needs.

• Pharmacy Services will empty the secured cabinets in med rooms return bins during normal business hours and review reports of controlled substance returns for proper tracking and inventory purposes.

• A narcotic inventory will be completed at the beginning of each shift in both the acute care and Emergency room area. In the event the area is closed a daily inventory of the closed unit’s narcotic inventory will be performed by 2 nurses or 1 nurse and a pharmacy technician. All discrepancies if unable to be resolved need to be reported to the house supervisor and pharmacist in charge.

• The nurses complete a narcotic inventory at the beginning of each shift. If a discrepancy is found, the RN’s try to resolve discrepancy, if unable to resolve charge RN or house supervisor is contacted. No one is allowed to leave until discrepancy is resolved.

• Pharmacist is notified of discrepancies

Dispensing for Patient Administration

• All schedule II, III, and IV substances obtained by the hospital and stored in patient care areas that do not utilize automated dispensing machines must be kept in a double-locking secured stationary cabinet.
A perpetual inventory for all C-II, II and IV substances will be maintained on the physical narcotic control sheets/logs obtained from pharmacy. The removal of controlled substances by the administering nurse or medical assistant shall be just prior to patient administration and will be documented on the narcotic control sheet/log. The administration to the patient will be documented on either the MAR, or in the patient’s medical or surgical record. Documentation includes patient’s name, date and time, medication name, dosage amount, route of administration. Unused amounts must be recorded and witnessed by two signatures on the narcotic sheets.

If all or part of a controlled substance is not administered and is no longer secured in its original packaging, the nurse will waste the controlled substance. Waste amount, date and time will be documented on the narcotic control sheet/log and witnessed by a 2nd nurse or MA prior to disposal. Refer to section of this policy for appropriate methods of disposing and washing controlled substances, i.e., crush and flush, sink, and then sharps container for empty containers.

Complete narcotic control sheets/logs are to be stored in Pharmacy for 7 years. Offsite hospital clinics will store their narcotic control logs for 7 years on site and under the DEA license of clinic’s DEA registrar.

Dispensing of Patients Own Controlled Substances

See policy 03.2-16 for proper procedures. Patients own controlled medications that are authorized for use in the hospital must be positively identified and counted with patient signature verification and record on the form: Patients Own Medication Storage: The medication name, strength and beginning quantity will be recorded on the from: Controlled Substance Inventory Record-Acute Care. Doses administered will be subtracted on the inventory so a perpetual inventory is maintained until the medication count is verified and returned to the patient. These forms will be scanned into the patient’s electronic medical record on discharge.

Controlled Substance Disposition of Wasting

Wasting or disposing of unused inject-able or liquid controlled substances consists of withdrawing the contents from the vial or container, verifying the amount and washing the contents down a sink drain or toilet flush, all under the direct observation of a 2nd authorized witness (nurse or pharmacist). Medication-filled syringes will not be places into the sharps container; these are reserved for discarding empty containers only.

Controlled substance tablets should be crushed and flushed down sanitary sewer drains, sinks or toilets. Controlled substance capsules should be opened and contents poured down sanitary sewer drains before discarding the shell into the sharps container.

To dispose of used and unused Fentanyl trasdermal patches, it is necessary to fold the patch over so the sticky sides meet, cut into quarters with scissors and flushed down the toilet.

Discrepancy Resolution-Nursing Responsibilities

The nurse in charge must resolve the discrepancy by the end of that work-shift; any unresolved discrepancies are to be resolved prior to anyone leaving the nursing unit.

When a discrepancy occurs which cannot be resolved with the charge nurses’ assistance, the charge nurse will document the details on an incident repot and contact the pharmacist or the Director of Nursing. If the pharmacist or Director of Nursing cannot resolve the discrepancy, it will be reported using the hospital’s routine risk management reporting system. If a significant loss or suspected thefts occur, pharmacy will report the incident to the Drug Enforcement Agency and any required state agencies. Urine drug tests may be performed on staff per hospital policy and procedures.
Discrepancy Resolution – Pharmacy Responsibilities

- The Director of Pharmacy is available at all times to provide assistance in resolving narcotic discrepancies. Assistance may be provided by accessing and reviewing controlled substance records and sharing them with the clinical Nurse leader to help resolve controlled substance discrepancies.

- Recommend action such as, urine drug tests, and holding personnel after their shift until resolution of a discrepancy occurs.

- All controlled substance discrepancy incidents will be reviewed by Pharmacy for accuracy in explanation and for trending. Changes to the stock or electronic entry may be implemented to decrease the discrepancy rate.

- Pharmacy Services will notify the Nurse Supervisor and the Director of Nursing when discrepancies have not been resolved adequately.

- Perform regular random or complete narcotic audits of all override narcotic transactions. Audits will compare the dispensing records with the physician order, documentation of nurse administration to the patient and any wastage on the automated dispensing machines, controlled substance use in the clinic and in OR/PACU. Results of audits will be available to the Pharmacy and Therapeutics committee and reported to the Director of Nursing.
DISCHARGE MEDICATION IN THE INPATIENT SETTING

Policy:

- Discharge medications are an important component of the continuum of a patient’s care. This hospital is committed to assisting the patient/family in obtaining access to appropriate pharmaceutical care during the discharge process. Patients will be referred to neighboring community pharmacies.

- No drugs supplied by the hospital shall be taken from the hospital. Inpatient Pharmacy Services shall not dispense discharge medications, except in unusual circumstances, which will be assessed on an individual basis. In such an event, a prescription or medical record order must be written for the medication, Nurses may not dispense medications to patients being discharged from hospital. The staff in the patient care unit will return all the patient’s inpatient medications to the Pharmacy Services after the patient is discharged.

Procedure:

- At an appropriate opportunity during the patient’s stay either the nurse or Pharmacist will discuss with the patient and/or the family about options for obtaining discharge prescriptions. The patient may be provided printed material describing the options.

- The patient and/or family may receive education about anticipated discharge medications prior to the day of discharge. Either the nurse or Pharmacist will provide such education. Documentation of such education will appear in the clinical notes. (see also “Patient Education – Discharge Medications” policy and procedures)

- The nurse will assist the patient/family in obtaining the discharge medications, if so requested. The patient/family will be directed to local, accessible pharmacies. The patient/family may also elect to take the prescriptions to the pharmacy of their choice to be filled.

- The inpatient Pharmacist may assist in providing the outpatient medication in extraordinary events, hardship cases or when the medication is difficult to obtain elsewhere. It should be noted however, that discharge prescriptions are not a payable benefit of most health care insurance plans. The patient/family holds the financial responsibility for discharge prescriptions.

- If an inpatient Pharmacist dispenses a discharge prescription, the prescription must be filled to meet all state and federal laws and regulations for outpatient prescriptions.

- No person, other than a Pharmacist or an individual under the direct supervision of a Pharmacist, shall dispense medication for use beyond the immediate needs of the patients.

- The Pharmacist will review with the patient of the patient’s representative the discharge medications that have been filled at the time of pickup.
MEDICATION ORDERS – PHARMACY RESPONSIBILITIES

Policy:

• All in patient medication orders shall be processed and dispensed only after the review and certification of a Pharmacist, except under urgent or emergency patient conditions.

Procedure:

• The Pharmacist shall check for:
  o Patient Drug allergies
  o Completeness of the drug order
  o Correctness of the drug order
  o Drug incompatibilities, duplication of therapy
  o Appropriate dosage, route, frequency and indications for the condition and age of the patient

• The Pharmacist shall contact the prescriber or patient nurse with any questions or clarifications regarding the medication order.
  o New orders shall be placed in the patient’s medical record.

• The Pharmacist shall dispense drugs only after reviewing the product with the medication order.
  o The amount of drug dispensed shall be dependent upon the frequency of drug distribution to the particular area where the patient is located (e.g. if cart fill requires and 24-48 hour supply, the amount dispensed for Pharmacy will cover all doses until the next cart-fill delivery).
  o After Pharmacy Services is closed, all medications obtained by the Nursing Supervisor or charge nurse from the pharmacy, shall be checked against the written/entered medication order by another nurse. A pharmacist shall check against the written/entered medication order with the example of the medication(s) removed from the pharmacy immediately upon re-opening of Pharmacy Services.
TITRATING/TAPERING OF MEDICATIONS

Policy:

It is the policy of this hospital to allow orders for medication “titration” or “tapering”, which is the progressive increase or decrease of the medication dosage in response to the patient’s clinical status and desired monitoring parameters.

Procedure:

• Orders for medications requiring titration or tapering must include the desired clinical outcome for the patient (e.g., “titrate medication to achieve B/P of 130/80”). Dosage adjustment increments and limitations must be known before the medication is titrated or tapered. This allows clinical staff to increase or decrease the medication safely, while achieving the desired patient outcome. Titration and tapering increments will vary depending on the drug’s pharmacokinetics and pharmacodynamics involving the patient’s clinical status, co morbid conditions and other factors.

• The Pharmacy and Therapeutics Committee must approve all medications requiring titration and tapering by protocol. Safe dosage ranges for medications that are to be treated must be reviewed and approved by the P&T Committee. For titrated medications:
  o Maximum and minimum dosage limits will be set for each titrated medication. The prescriber will be notified when dosage limits are outside approved parameters.
  o Accepting orders for titrated medications without dosage limits will be considered an unsafe practice. Therefore, orders for a titrated medication without dosage limits will not be prepared, dispensed, or administered. The Pharmacist or nurse will contact the prescriber to obtain dosage limits.
  o If a titrated medication continues at or above the dosage limit, the prescriber will be contacted and must approve the current dose at least every 24 hours by writing specific orders with a new dosage limit at which he/she should be contracted.
  o Dosage limits for titrating and tapering medications must be included or preprinted orders, clinical practice guidelines or written protocols for titrated medications.
  o Orders for titration or tapering that lack a specified period of time for evaluating the patient, the titration period will be performed as outlined in the “IV Guidelines” resource. If no specific direction exists in the “IV Guidelines”, the physician will need to be contracted for specific exists in the “IV Guidelines”, the physician will need to be contracted for specific time orders. Clinical staff must assess the patient frequently when titrating medications to detect potential problems early.
  o The nurse is required to document, at least hourly or as specified by the physician or the “IV Guidelines”, the patient’s response with regard to the parameter(s) ordered, current flow rates and adjustments made at the time of evaluation.
CLARIFICATION OF MEDICATION ORDERS

Policy:

• A Pharmacist or Nurse will contact the prescriber before dispensing or administering a questionable medication order. Any Question or clarifications shall be directed either by oral or written communication. A written clarification will be placed in the patient's medical record.

• The Pharmacist will document all attempted medication order clarifications as a clinical intervention, regardless of final resolution.

Drug Allergies:

• If a medication has been ordered to which the patient claims an allergy, either to it or its ingredients, the drug will be held until the extent or type of allergy can be clarified with the patient/designee, and/or the safety of the order can be verified with the prescriber.

• If the order is to remain as originally written, the date and time of verification will be noted in the patient’s medical record.

Drug Interactions:

• In the event that a drug is ordered that might have a potentially significant interaction with another drug the patient is currently receiving, the prescriber will be notified. If the pharmacist judges that it is in the patient’s best interest, the order will be held and the drug will not be dispensed until order clarification is received.

• If the order is to remain as it was originally ordered, the date and time of clarification will be noted in the clinical notes section of the medical record.

Questionable of Unclear Orders:

• If an order is unclear or questionable, (e.g. illegible handwriting, unusual dosing, frequency or route), the prescriber will be contacted to verify the order before dispensing.

• When resolved, the questionable order will be written in the patient’s medical record in its clarified form by the prescriber, or by the pharmacist or nurse who obtained the clarification, as a verbal or telephone order.

• If the prescriber will not change the order to an approved regimen or provide reasonable explanation or documentation for the questionable order, and the pharmacist believes that the order may cause harm to the patient, the pharmacist has a legal responsibility under state pharmacy law to refuse to approve/provide the drug in question. The prescribing prescriber may administer the drug him/herself. The pharmacist will document all communication with the prescriber in writing.

• The Pharmacy and Therapeutics Committee Chairperson or Medical Chief of Staff will be contacted to discuss the situation.

• The Executive Administrator of the hospital will be notified.
AUTOMATIC STOP ORDERS

Policy:

• This hospital shall limit the duration of drug therapy when the prescriber does not specify the duration of drug therapy or when extended duration of a drug has high potential for causing harm to the patient.

• All medication orders shall be discontinued when a patient is transferred to a unit with a different level of care (i.e., general patient care floor care to operating room).

• Controlled substances, antibiotics, anticoagulants and other high-risk medications will be subject to automatic stop order procedures.

Procedure:

• A pharmacist will review antibiotics prior to the stop date. If the need to continue the current antibiotic treatment is apparent (e.g. endocarditic, osteomyelitis, febrile neutropenia); the pharmacist may override the automatic stop order. If the need to extend antibiotic treatment is not apparent, the Pharmacist or nurse will contact the physician directly or place an automatic stop notice in the progress notes or in a designated place on the patient’s chart 24 to 28 hours prior to discontinuing the drug.

• All medication orders of unspecified length of treatment will be subject to automatic discontinuation. The prescriber may override the automatic stop date by specifying a particular duration with the initial order.

• Hospital medication reconciliation shall be performed when the patient is transferred to a unit with a different level of care. The physician must review medication orders. Orders to be continued may be reconciled. Utilizing the hospital; medication reconciliation functions in the EHR.

• Automatic stop dates for the following drug/classes with be assigned as follows:
  - Antibiotics (oral & IV) 10 days
  - Controlled drugs/Narcotics 7 days
  - Continuous Heparin/LMWH* 3 days
  - Ketorolac (IV, IM + PO) 5 days
  - Warfarin (initial dosing)** 1 day
  - Warfarin (maintenance dose) 3 days
  - All other drugs 30 days

Notes:
LMWH = low molecular weight heparin

• * Heparin flushes and Heparin subcutaneous orders will be excluded from this policy.

• ** Warfarin should be reordered daily once the daily INR value has been determined and evaluated; until a maintenance dose has been established (the patient’s INR is therapeutic and stable).

Renewal Notice: A notice of renewal will be posted with the Progress Notes in the patient’s medical record 48 hours before the automatic stop date takes effect. If not renewed, the order will be stopped automatically at 2400 on the date specified. If the prescriber fails to renew the order before the expiration date, nursing staff will verbally notify the prescriber of the impending automatic stop order, prior to the next schedule dose, before any doses are missed. If the medication is to be continued, the nurse will take a verbal order to continue the medication and will properly document the order in the patient’s medical record. If the medication is to be discontinued, the nurse will take the verbal order and document the discontinuation of the order in the patient’s medical record.

Drug Reordered: If the drug is to be renewed, a new and complete order is required to be written on the physician’s order form (the use of the terms “renew”, “repeat” and “continue” is not acceptable).

• No medications will be dispensed without a new medication order.
COMPOUNDING MEDICATIONS

Policy:

It is of this hospital to allow orders for compounded drugs or drug mixtures not commercially available, as appropriate, to meet the special needs of our patients. Compounded drugs may be ordered and prepared according to applicable state and federal laws and regulations. Compounded drugs may be prescribed when the licensed independent practitioner determines, in his/her professional judgment, that the compounded drug’s benefits are superior to those of any approved alternative or commercially available product. The compounded drug’s benefits are superior to those of any approved alternative or commercially available product. The compounded drug’s benefits must outweigh any potential risk to the patient. Pharmacy Services will prepare safe and effective products using the highest-quality ingredients and good manufacturing methods and techniques.

Procedure:

- Pharmacy Services will prepare compounded drugs or will contract with a specialty compounding pharmacy when a drug that is not commercially available is ordered. The drug must show clinical evidence of efficacy and safety, based on medical evidence and literature reports. There must exist a recipe for the compounded drug’s preparation.

- The following are the most likely reasons for ordering and preparing compounded drugs:
  - The drug required is not manufactured in the needed strength.
  - The prescriber requests a different form of the drug to improve patient compliance with prescribed drug therapy (e.g. to improve swallowing or taste).
  - The prescribed drug is needed to be combined in forms not available from the manufacturer to improve patient response to prescribed drug therapy.
  - The patient is allergic to inactive ingredients (i.e. dye, lactose) in the commercially available form of the drug.
  - The patient is allergic to components of the drug packaging (i.e., latex/rubber stoppers) in the commercially available product.
  - The prescribed therapy required tailoring to the individual patient (e.g. intravenous feeding solutions, chemotherapy).

- The drug to be compounded must be individually prescribed for an identified patient. The drug shall not be compounded for general floor stock use.

- The active ingredients or chemical shall be used in compounding only if:
  - It is contained in a FDA-approved drug reference.
  - It is listed in a book of widely used drug substances published by the United States of Pharmacopeia (USP).
  - It is listed in FDA rule as acceptable for pharmacy compounding.

- Previously marketed drugs that have been found to be unsafe or ineffective and have been removed from the U.S. drug market may not be compounded by Pharmacy Services.

- Drug products listed in the FDA’s regulations as “difficult to compound” may by Pharmacy Services.

- Prior to preparing the compounding drug, the Pharmacist will review the patient’s medical record. The possible risks of the patient receiving the compounded drug, along with the potential benefits to the patient’s medical condition, will be weighed. If the Pharmacist, in his/her clinical expertise, feels the risks outweigh the benefits, the prescriber will be contracted for revision of the order.

- If the prescriber has ordered a compounded drug that is found to be either unsafe or ineffective; has been removed from the U.S. drug market; or has been listed in the FDA’s regulations as difficult to compound, the Pharmacist will contact the prescriber for an alternative order.
If the prescriber will not reverse the order and insists on preparation of the compounded drug, the Pharmacist will contact the Chairman of the Pharmacy and Therapeutics Committee or the Chief of Medical Staff to resolve the issue.

- If a recipe or instructions for a compounded medication is not available or if the product is to be made from non-sterile drugs or impure chemicals, the Pharmacy and Therapeutics Committee will review before mixing.

- Sterile compounding will follow the requirements outlined in state/federal law and in accordance with accepted guidelines provided by USP-NF Chapter 797.

- Pharmacy Services will contract only with specialized compounding pharmacies that have been approved by the Pharmacy and Therapeutics Committee. The Committee will review these vendors and services annually.
RANGE MEDICATION ORDERS

Policy:

It is the policy of this hospital to eliminate range orders for medications where possible. Range orders that are deemed essential to the care of the patient by the prescribing physician will be carried out per the following procedures. All prescribers at this hospital shall be aware of this policy and dosing protocols.

Definitions:

A "range" order is a medication order written to allow for a range of dose and frequency. A range order is expressed (for example) as: "Tylenol 325 mg tablets, one to two every four to six hours, PRN pain.” Range orders may be complete but are not always clear and are open to interpretation.

Procedure:

• Frequency ranges will automatically be interpreted and transcribed as a fixed-interval at the shortest interval order. For example, an order for “acetaminophen 650mg PO every 4-6 hrs PRN pain” will be interpreted as “Acetaminophen 650mg PO ever 4 hours PRN pain.”

• Medications with hospital-developed dosing protocols may be dosed by range. All protocol range orders for medication will be initial with the lowest dosage and the maximum dosage range differs by no more than 4 times the minimum, (“1-4 mg Morphine IV PRN pain”).

• Doses less than the order range cannot be given without prescriber authorization and a new order indication to administer a lower dose than the range specified.

• Dosing protocols developed at this hospital will clearly define how range orders are to be interpreted for all indications in which physicians and other prescribers order “range” or “PRN” dosing. For example, pain, constipation, agitation, etc. These protocols will also include duplicate therapies and clearly outline when a medication is to be given versus another. For example, multiple pain medications for varying degrees of pain. Protocols shall define symptom severity or pain levels and list appropriate dose and frequency for each medication used. For example, “if Vicodin ordered and patient’s pain levels is 7/10, give 2 tablets every 6 hours”

• Medication ordered for a range of tablets or dosage strength within a dosing protocol shall be initiated at the lowest dosage. For example, if “one to tow tablets” ordered, one tablet shall be administered for the initial dose. For an additional example, if “1 to 4 mg” ordered, 1 mg shall be given for the initial dose. If symptomatic relief is not obtained, the nurse shall follow appropriate dosing protocols to increase the dosage.

• In the absence of a dosage range protocol or specific physician instructions in the order, a nurse has the authority to adjust medications within the dosage range stipulated by the prescriber and according to the following protocol.

1) Pain medications
   The nurse will assess a patient’s pain per nursing pain assessment protocols or using either the Wong-Baker scale/visual analog scale or the FLACC scale to determine pain severity.

<table>
<thead>
<tr>
<th>Pain Scale</th>
<th>Verbal Score Given By Patient</th>
<th>Dose to Administer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>0-3</td>
<td>Lowest does in range</td>
</tr>
<tr>
<td>Moderate</td>
<td>4-7</td>
<td>Middle dose in range</td>
</tr>
<tr>
<td>Severe</td>
<td>8-10</td>
<td>Highest dose in range</td>
</tr>
</tbody>
</table>

Original Effective Date: 1/24/2014
Reviewed/Revised: 6/2014
If supplemental relief of pain is needed prior to the next approved frequency, i.e., before 3 hours for a Q3 hour PRN order, additional incremental doses may be given provided the total dose during the interval does not exceed the maximum prescribed dose.

If a nurse’s subjective and objective assessment of the patient is contrary to the medication range order recommendations indicated above, a new physician order must be obtained. Pain assessments must be documented in the medical record.

2) Non-pain medications: For medications ordered for symptoms without an established scale, such as nausea, agitation the nurse’s subjective and objective vomiting, a stronger dose of the medication will be used than if the patient is complaining of mild nausea, in all circumstances, the medication ranges are within the usual range of prescribing.

- If, upon a thorough clinical assessment, the nurse determines that the dose range and/or frequency may not be adequate to manage the patient’s condition, the prescribing physician must be contracted. The medical record must include vital signs, observable symptoms, and any patient complaints. The prescriber must reassess the patient and determine a new dose or dosing range, if appropriate.

- According to hospital policy for medication administration, the effect of the medication on the patient must be documented in the medical record.

- PRN orders must be written to include the symptom or indication for use unless there is only one possible use for the medication (i.e., the only possible PRN use of a stool softener is to prevent or relieve constipation).
USE OF HERBAL AND NATURAL PRODUCTS

Policy:

It is the policy of this hospital to control all medication brought into the hospital by patients. For the safety of the patient, herbals and food supplement use will be restricted while the patient is hospitalized. Pharmacy Services and this hospital will not furnish any herbal or natural products due to insufficient safety and efficacy data and the lack of FDA supervision and approval.

Procedure:

• During the hospital admission process, the patient will be asked if any medications are taken routinely. This will include herbals, food supplements and other “natural” or homeopathic products.

• All medications will be sent home as soon as possible with a family member.

• If this is not possible, they will be stored in the unit’s medication room or in Pharmacy Services until discharge.

• No OTC and herbal products will be allowed for use in the hospital. An order will be placed into the medical record to hold OTC/herbal products until discharge by the pharmacist.

• As with other medications brought from home, herbals will be returned to the patient upon discharge. See also “Patient’s Own Medications (Home Medications)” policy and procedures.
PEDIATRIC DRUG DOSING – SAFETY GUIDELINES

Policy:

It is the policy of the hospital to require effective and safe medication doses for pediatric patients. When appropriate, medications for pediatric patients will be dosed according to their body weight. It is understood that weight-based dosing requirements may be dependent upon a patient’s physical level of growth and development.

Definitions:

For the purpose of medication dosing, “pediatric” patients are defined as those patients aged from birth to 13 years of age and generally weigh 50 kilograms or less.

Procedure:

• All orders for pediatric medication will include the patient’s current body weight, listed in kilograms (kg) and body surface area (BSA), as applicable.

• The order will include:
  1) The dose of the medications with appropriate units (in mg or mEq, as applicable), along with
  2) The weight-based dosing parameters that was utilized to calculate the medication regimen (e.g., __ mg per __ kg per dose).

• The order will also include the dosing frequency and any exceptions applicable to administration of the drug.

• Any pediatric medication orders that do not specify the patient’s weight will be considered incomplete and will not be prepared, dispensed or administered. The Pharmacist or nurse will contact the prescriber to clarify the medication order.

• The clarified order, including the patient’s weight and dosing parameters, will be documented in the patient’s medical record by the prescriber or by the Pharmacist/nurse who clarified the order.

• The Department of Pharmacy Services shall also prepare all intravenous (IV) drug solutions that contain electrolytes not already available in premixed intravenous solutions, or if after hours 2-11c RNS need to verify additive and sign the pharmacy after hours log book.

• Pediatric IV Volumes:
  The volume of IV fluids to be hung at any one time shall be limited to the following:

  250ml volumes for children weighing 2.2-23 kg (1-50 pounds)
  500ml volumes for children weighting 23-45kg (50-100 pounds)
  100ml volumes for children weighting over 45kg (100 pounds)

Pediatric patients less than 12 kg (26 pounds)

Must use a micro drip volume control device (Buretrol, Metriset, Soluset) to deliver intravenous fluids. The maximum amount of fluid that can be place in the burette or volume control device is no more than 3 hours of the hourly IV rate.

• An RN will assess the patient’s IV site(s) and chart the solutions and infusion rates hourly.

• A syringe infusion pump is to be used for all pediatric patients less than two years of age.

• Preservative-free diluents and flushes will be used for all pediatric patients less than one month of age.
• All pediatric patients on IV therapy shall have intake and outpatient charted every 8 hours unless strict I’s and O’s are ordered.

• Topical analgesic creams (EMLA, lidocaine) may be used for non-allergic pediatric patients greater than one month of age for line placements, needle sticks, per nurse protocol.
PREPARING IV SOLUTIONS OUTSIDE OF LAMINAR FLOW HOOD

Policy:

The hospital no longer has a Certified Laminar Flow Hood for preparing IV admixtures. It is extremely important to follow the CRH Policy and Procedures posted below for preparing IV solutions in ER and West Wing for our patients.

Procedure:

Preparing IV Solutions Outside of Laminar Flow Hood:

• If patients requires an IV solution in an emergency situation and/or access to a laminar flow hood is not available, the solution may be compounded outside of laminar flow hood, using the following guidelines.

• The intravenous solution must be prepared as prescribed, without microbial or particulate contamination, be unaltered by incompatibilities of interacting agents, and remain stable for the required period of time.

• The following medications should not be prepared outside of a laminar flow hood:
  o TPN base solutions (Exception: due to stability reasons, some additives such as insulin or MVI may be added outside of the laminar flow hood)
  o Chemotherapy
  o IV medications for HIV/AIDS and immunocompromised patients
  o Epidurals
  o Pentamidine

Education and Training:

• Training will be given to all those employees who may have to prepare IV solutions outside a laminar flow hood.

• Topics will include:
  o Infection control and hand washing requirements and techniques
  o Definition of aseptic technique
  o Types of supplies needed and how to use them.

Preparation outside the Hood Procedure:

• IV admixtures will be prepared in an area away from heavy traffic and shall only be for immediate-use admixtures. Preparing doses for later administration is prohibited.

• The work surface will be cleaned with a non-lint producing gauze pad using isopropyl alcohol. All needed supplies and medications will be assembled and arranged on the clean work surface.

• The compatibility and expiration date information will be checked by referring to the package insert, Facts and Comparison, the Handbook on Injectable Drugs, or on the on-call Pharmacist.

• Hands will be washed thoroughly according to protocol. Remove watches and rings.

• The admixture will be prepared using aseptic technique by:
  o Avoiding touch contamination.
  o Wiping stoppers on vials or entry ports on bags with an alcohol swab prior to needle entry. Wipe in one direction. Let the alcohol dry.
• If the medication required reconstitution, an equal amount of air will be removed incrementally as the diluents are added.

• Once the powder is dissolved, the reconstituted suspension will be transferred to the IV solution using a filter needle.

• A drug label will be affixed to the IV solution bag.

• Labels for IV products must contain the following information:
  o Patient’s full name, location and hospital ID number
  o Name and volume of the base solution
  o Name(s) and amount of drug(s) added
  o Rate of administration
  o Date and time of administration
  o Expiration date and time
  o Any important supplementary information
  o Name or initials of individual preparing the admixture

• In order to assure that the physician order, the label, and the components used are correct and in agreement, the following checks for accuracy must be made on each completed admixture.
  o The label is complete and free of error
  o The correct IV solution, including size and strength, has been used
  o The correct additive has been used
  o The admixture is clear and free from particulate matter. (Hold the admixture in front of a light and a dark background and check for foreign matter.)
  o Each drug and solution is written its expiration date and time.
EMERGENCY/CRASH CART MEDICATIONS

Policy:

This hospital maintains mobile supplies of emergency equipment and medications (crash carts) in potential care areas of the hospital. The Medical Staff through the Pharmacy and Therapeutics Committee determine which medications will be stocked in these carts based on current Adult and Pediatric Advanced Cardiac Support (ACLS, PALS) drug guidelines. Items cannot be deleted or added to the list of drugs without approval of the Medical Staff through the P&T Committee. Pharmacy Services will be responsible for the integrity, potency, and security of medications contained in the crash carts.

Procedure:

Emergency Crash Carts & Medication Trays:

• The emergency drug supply shall be stored inside the cart in a clearly marked, sealed portable tray or in a box that has been reviewed by a Pharmacist. The Pharmacist will apply a plastic seal, which must be broken to gain access to the drugs. The contents of the tray will be listed and kept with the emergency drug supply box at all times. The list will also include the earliest expiration date and any necessary restocking.

• Assigned nurses in patient care areas will inspect the lock number and seal’s integrity on every shift and document on an inspection sheet, if the seal remains unbroken and is properly secured. If the seal has been broken, the medication tray will be sent to the Pharmacy Services for inspection and any necessary restocking.

• Pharmacy Services personnel will inspect the emergency drug trays and fluids stored on each of the Emergency/cardiac arrest carts monthly. Inspections will be documented and any problems will be reported to the Nurse Administrators. Any expired or unusable drugs and fluids will be replaced immediately and the tray/cart will be resealed by Pharmacy Services following normal procedures.

• Assigned nurses in patient care areas shall be responsible for checking the integrity of all equipment stored on top of the emergency crash cart (i.e. defibrillators).

• All opened emergency medication trays will receive priority in restocking, resealing and replacing to the appropriate patient care area.

• Pharmacy Services staff will restock the medication trays whenever a tray is opened or a seal is broken. The breakaway, numbered, color-coded seals for crash cart locking will be available only from Pharmacy. Should the tray/cart be opened for any reason, the restocking process will be completed and the cart resealed. Extra locks will not be stored on nursing units... Only approved locks/seals will be used and one Pharmacy Services staff will possess these locks/seals.

• After an emergency drug tray has been unsealed or opened, the assigned nurse will return it to Pharmacy Services, along with the patient charge form. The charge form will indicate which drugs were used. A restocked tray will be provided by Pharmacy Services upon exchange for the opened tray. An emergency drug tray will be used for only one patient. A new, restocked tray will be used for each new patient.

• After medication restocking in Pharmacy Services, the emergency cart or tray will be returned to the appropriate patient care area.

• If the pharmacy Service is closed after a medication tray has been used or opened, it will need to be replaced before the Pharmacy reopens. One extra crash cart tray is located in the ER medication room. If more are needed, the charge nurse may access the pharmacy and exchange the used tray for a replacement. The used tray must be left in the pharmacy with the patient charge sheet. Pharmacy will maintain 3 replacement crash cart trays for afterhour’s access and 1 pediatric and two intubation boxes.
Drug trays will be restocked by Pharmacy Services, according to the following procedure:

- Check all drugs in the tray against the drug list and par levels
- Record the missing items and quantities on the patient’s charge sheet
- Replace all missing items
- Review expiration dates on all drug in the restocked tray and record the earliest expiration date on the restocking log and Code Tray label
- Label the emergency tray with the following:
  - Earliest expiration date
  - Name and lot number of drug with earliest expiration date
- A Pharmacist will check the contents of the tray for completeness and accuracy
- Seal the tray with Pharmacy tamper-evident, color-coded breakaway seal
- Charge the missing items to the patient’s account.

Auxiliary Emergency Medication Boxes:

- Auxiliary emergency medication boxes may be kept in all patient care areas.
- The contents of these auxiliary emergency medication boxes may differ. The contents will be dependent upon the patient care area that it serves. The P&T Committee will approve all contents of all boxes in all patient care units.
- The auxiliary emergency medication boxes will be kept in a locked cabinet or room. The supervising departmental manager will be responsible for the key to the locked area.
- Each auxiliary emergency medication boxes will be secured with a breakaway, numbered lock by Pharmacy Services, the emergency Staff, after medications have been restocked and the earliest expiration dates logger. The seal number will be logged and filed in Pharmacy Services.
- Auxiliary emergency medication boxes will be restocked following the same procedure as outlines for emergency crash carts/trays. After medication restocking in Pharmacy Services, the emergency cart tray will be returned immediately to the appropriate patient care area.
- Pharmacy Services personnel will inspect the emergency drug trays and fluids stored on each of the emergency/cardiac arrest carts monthly. Inspections will be documented and any problems will be reported to the Nurse Administrators’. Any expired or unusable drugs and fluids will be replaces immediately and the tray/cart will be resealed by Pharmacy Services following normal procedures.

Locations:

Emergency/cardiac arrest crash carts/trays are located in the following hospital areas:

- Emergency Room and Emergency medication room (1 back-up tray)
- Pharmacy (Replacement trays)

Auxiliary emergency medication boxes are located in the following hospital areas:

- Radiology/Imaging Services-Magnetic Resonance Imaging room
- Acute Care Medication Room
- Emergency room medication room
- Pharmacy (replacement boxes)

**CODE CART MED TRAY**

<table>
<thead>
<tr>
<th>Medication</th>
<th>Billing Code:</th>
<th>Par</th>
<th>Expiry Date:</th>
<th>Quantity Used:</th>
<th>Initials &amp; Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adenosine 6mg/2ml</td>
<td>06891824</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amiodarone 150mg/3ml</td>
<td>01682079</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atropine 1mg/10ml</td>
<td>06809958</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcium Chloride 1g/10ml</td>
<td>06815138</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dextrose 50% 50ml</td>
<td>06823934</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diphenhydramine</td>
<td>06844401</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epinephrine 1mg/10ml PFS</td>
<td>06826139</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furosemide 100mg/10ml</td>
<td>01682806</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lidocaine 100mg/5ml</td>
<td>06843064</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnesium Sulfate 10ml PFS</td>
<td>01684554</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Naloxone 2mg/2ml PFS</td>
<td>01683697</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procainamide 1g/10ml</td>
<td>06862742</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Bicarbonate 50mEq/50ml</td>
<td>06867576</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saline Pre-filled Flush</td>
<td>01685197</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vasopressin 20U/ml</td>
<td>01684398</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verapamil 5mg/2ml</td>
<td>06878128</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PATIENT’S OWN MEDICATION (HOME MEDICATION) USE AND STORAGE

Purpose:
To describe to safely manage medications brought into the hospital by patients and their families. The hospital is to supply medications for patients in all circumstances except as outlined in this procedure. This limitation is based on matters of patient safety as the conditions under which patient’s medications have been stored or handled prior to admission are unknowns.

Procedure:
This procedure applies to the administration of medication(s) by authorized Hospital personnel in inpatient and swing-bed units while under the direct care of the Hospital. Patients own medications (POM) are defined as medications that the patient brought to the hospital with him/her prescribed by a physician prior to admission. Herbal, dietary supplements or nutraceutical medications that a patient may be taking will not be administered at the hospital.

A. Medications that will not be used during hospitalization or treatment stay should be returned home with a family member. Medications unable to be returned home will be stored in the Acute Care medication room or Pharmacy until the patient is discharged.

The procedure for the proper storage of medications includes the following:

a. The nurse will document the medications on the patient’s own medication storage form.

b. All controlled medications, Schedule II to V, will be counted and verified by two licensed nurses. An exact count will be entered on the home medication storage form.

c. Signatures of both the nurse and the patient or a patient representative will complete the medication storage form.

d. One copy of the medication storage form will be kept in the medical chart and one copy will be attached to the envelope or bag the medications will be stored in.

e. The medications will be secured in a drawer, in the medication room or in the pharmacy, away from all other pharmacy and floor stock medications and clearly marked as “Patient’s home medications.”

f. At the time of the patient’s discharge, the patient, the discharging nurse, or the patient’s representative may receive the stored home medications. The patient or patient’s representative will sign for the receipt of the medications on the medication storage form.

g. The pharmacy department will properly dispose of unclaimed medications left for more than 60 days. Medications must be disposed of by flushing down the toilet/sink, incineration, or via an approved drug disposal company. A note indicating the destruction of patients meds will be entered on the Patients own medication storage form. Destruction of controlled Schedule II, II, IV and V drugs will be through an authorized returns company. Otherwise the destruction must be performed and witnessed by two licensed individuals (e.g. two pharmacists or a nurse and a pharmacist).

h. Medications that remain in the hospital after a patient has deceased will not be returned to the family, but destroyed per policy.
B. Patients may use their own medications under the following circumstances:
   a. The medication is not on the hospital formulary and a reasonable therapeutic substitution is not available.
   b. To insure the continuation of therapy if the physician deems the use of POM medically necessary to meet an individual patient need and this is documented in the chart.

C. Medication brought in by a patient or family member to be utilized during their hospitalization must meet all the following conditions:
   a. Identification of each patient’s own medication must be verified by a pharmacist. If a pharmacist is not present, a licensed nurse must verify the medication by its tablet or capsule imprint code prior to administration. The pharmacist will verify all medication identification when on-site.
      i. The medication must be contained in the original prescription container which identifies the name, strength, dose, route, directions for use and expiration date of the medication. Medications from a pill box will not be used.
      ii. Identification of a medication may be positively identified by several means:
          1. Use of the Ident-A-Drug reference in the medication room
          2. With the assistance of the University of Arizona poison control center at 1-800-222-1222.
      iii. A verification initial(s) and date on a blank sticker will be attached to the patients original container of all positively identified medications. This will indicate a positive identification (or that the original label correctly identifies the product inside).
      iv. If the medication cannot be properly identified, the patient may not use the medication from his or her own supply. The nurse of pharmacist will contract the prescribing physician to alert them that the patient cannot use their own supply.
   b. A physician order must be entered and documented in the medical record for patients to take their own medications. The physician cannot simply write, “patient may use own meds”. A complete written order must include the following for each medication that the patient is going to supply.
      i. Date and time of order
      ii. Name, dose route and directions
      iii. Generic or brand name of medication
      iv. Dosage expressed in the metric system, except in instances where dosage must be expressed otherwise (i.e. units, etc.)
      v. Frequency of administration
      vi. Route of administration
      vii. Any special instructions and purpose of the medication
      viii. Signature of prescriber
ix. Any abbreviations used must be approved and adopted by the hospital and staff. See this hospital’s approved abbreviations list.

x. A statement that the “patients may use their own supply” while in the hospital.

c. The medication nurse will specify the patient’s own medication(s) on the medication administration record (MAR) as a patient’s own medication and record the administrations if the medication is controlled drug, a perpetual count should be maintained on the controlled substance inventory sheet which should be kept with the patient MAR for each administration.

d. Storage of patients own medications to be administered during hospitalization or treatment must be locked at all times in the patient’s medication bin.

There will be no charges associated with use of any patient’s own medications.

If the medication needs to be accessible to the patient at bedside, the requirements for Self-mediation policies and procedures must also be met. See also Patient Self-Administration of Medications (Bedside Medications).

All prescribers shall be informed of this policy through the P&T Committee and Medical Executive Committee.
PHARMACY SCOPE OF SERVICE

Policy:

The departments of Pharmacy Services will be responsible for supporting the various components of the medication-use process, including:

- Patient-specific information as related to medication dispensing/administration
- Selection/procurement of medications
- Storage of Medications
- Ordering/Transcribing of medications
- Preparing/dispensing of medications
- Administering of medications
- Monitoring of medication use
- High-risk medications

Pharmacy services are designed to meet the primary needs of all customers. Pharmacy services include dispensing of pharmaceuticals in accordance with federal and state regulations, appropriate inventory maintenance functions, drug monitoring, patient drug assessment functions, appropriate record keeping, drug information, education services and performance improvement functions. The Department of Pharmacy Services also serves in an advisory capacity through the Pharmacy and Therapeutics Committee and to the administrative leaders to insure the development, coordination and review of all professional standards, procedures, policies and controls relating to procurement, storage, dispensing and safe use of medication.

Complexity of Patient Population:

The patient population is comprised of inpatients and outpatients ranging from the newborn and pediatric patients to the geriatric patient population. These patients require medications, medication counseling and/or education, which the Department of Pharmacy Services provided. Many patients present with moderate to severe complexity due to chronic illness or acute condition, which impacts medication absorption, metabolism and excretion.

Skill Levels and Qualification of Staff:

- Pharmacy Services personnel possess the skill level in order to provide safe, competent and accurate care as identified above. The Department of Pharmacy Services is managed by the Director of Pharmacy Services, a pharmacist with a BS/PharmD degree in Pharmacy, registered and licensed with the state of Arizona Board of Pharmacy. The director has training and experience that emphasizes the acute care health care environment.

- Pharmacy Technicians must meet the licensing/certification requirements of the State Board of Pharmacy and possess national certification. There is 1 fulltime Pharmacy Technician.

- Pharmacy Technicians and Pharmacists are required to demonstrate active participation in continuing education courses as required by the State Board of Pharmacy by providing documentation of attendance.
Ancillary and support personnel must possess basic educational requirements and be trained to assist the professional personnel as necessary.

Staffing:
- The Director of Pharmacy Services is on duty 20 hours per week and is on call when needed.
- There is one certified Pharmacy Technician on duty daily between the hours of 8:00 AM and 4:00 PM.
- The ratio of pharmacy Technicians to Pharmacist will not exceed 2:1

Standards of Practice:
The American Society of Health-System Pharmacists (ASHP) and American Society of Consultant Pharmacists (ASCP) standards are utilized in tandem with the recommendations from the Pharmacy and Therapeutics Committee in the formulation of departmental and medication-related hospital wide policies and procedures.

Prescribing/Ordering:
Primary responsibility for ordering medications rests with the individual physician and the medical staff.
- Standards for ordering medications will be developed by the collective medical staff, through the Pharmacy and Therapeutics Committee.
- The attending physician controls the prescribing for individual patients.
- The Pharmacist may be consulted on matters of drug prescribing as either an advisor or as a participant, according to standardized protocols. Any such protocols shall have prior Pharmacy and Therapeutics Committee approval.

Preparing/Dispensing:
A primary responsibility for the preparation/dispensing of medications rests with the Pharmacist.
- The Pharmacist will be responsible for review of the prescription, preparing drugs and dosage forms required, and dispensing according to policies approved by Pharmacy and Therapeutics Committee.
- In areas where review by the Pharmacist is not practical, such as Surgery, ER, etc., the responsibility for review, preparation and dispensing rests with the independent practitioner with appropriate clinical privileges.
- The pharmacist may delegate some aspects of drug preparation and dispensing to pharmacy technicians under their direct supervision. In these cases however, the Pharmacist will review the prescription before the medications are dispensed.

Pharmacy Services shall offer the following services within the framework of this hospital:
- Establishing procurement procedures for all approved drugs, and those chemicals and biological related to the practice of pharmacy.
• Maintaining an adequate drug inventory.

• Preparing and dispensing drugs and chemicals.

• In-hospital compounding of pharmaceuticals with proper control procedures.

• Preparing and labeling of parenteral medications and solutions that are compounded in the hospital. There shall be an associated quality control program to monitor personnel, training and performance and equipment and facilities. Appropriate records shall be maintained.

• Maintaining an available supply of Medical Staff-approved antidotes and other emergency drugs, both in the Pharmacy and in patient care areas.

• Filling and labeling all drug containers issued to the patient care areas from which medications are administered.

• Maintaining records of the transactions of the Pharmacy as required by federal, state and local laws, and as necessary, to maintain adequate control and accountability of all drugs. This shall include a system of controls and records for the requisition and dispensing to nursing units and to other services using medications.

• Communicating new product information to the medical staff, nursing services, and other hospital personnel, as required.

• Performing a review of all pharmacy policies and procedures for the purpose of establishing their consistency with standards of practice and current pharmacy procedures.

• Maintaining confidentiality of patient records.

• Maintaining a means of identifying the signature of all practitioners authorized to use Pharmacy services, along with a record of their DEA numbers.

• Inspecting the nursing stations and all areas in which medications are stored on a monthly basis.

• Inspecting the emergency drug and antidote box for inventory and expired contents on a monthly basis.

Administering:

Primary responsibility for the administration of medications rests with the nurse.

• The pharmacist and the nurse make independent verifications of the prescription prior to administration. Differences in interpretation between the two will be resolved, in consultation with the prescriber if necessary, before any doses are administered.

• Standards for drug administration such as dosing times, rate and route of administration, are established by Pharmacy and Therapeutics Committee. Intravenous drug administration guidelines are maintained by Pharmacy and Therapeutics Committee to advise the nurse, physician and Pharmacist on acceptable techniques.

• Standard drug administration information will be provided to the nurse by Pharmacy Services. A pharmacist will be available to the nurse and physician to provide drug information or advise on drug administration issues.
Monitoring:

Responsibility for monitoring the patient’s response to medication will be shared by the physician, nurse and Pharmacist. Documentation and communication between disciplines will be accomplished through the clinical notes or the physician notes in patients electronic medical record in EmPower.

- The Pharmacist shall monitor the following for patients as requested:
  - Response to drugs as measured by serum concentration studies.
  - Response to the formulation of total parenteral nutrition.
  - Response to the dose of anticoagulant therapy.
  - Appropriate medication dosage regimens based on renal status.

Pharmacy Services shall be responsible for participating in the development and implementation of medication use programs through the Pharmacy and Therapeutics Committee: Medication Use Evaluation, Adverse Drug Reaction Reporting, Medication Error Reporting, Formulary Maintenance, and Investigational Drugs.

Pharmacy Services shall be responsible for participating in hospital committees: Hospital Quality Improvement needs. The clinical services offered by the pharmacy shall include, but are not limited to, the following:

- Participating in those aspects of the hospital’s patient care evaluation program that relate to drug utilization and effectiveness.
- Maintaining a medication record of drug profile for each patient, which is based on available drug history and current therapy and includes the name, age, height, weight, sex, current diagnosis/medical problems, current drug therapy and drug allergies or sensitivities, and other pertinent information relating to the patient’s drug regimen.
- A review of the patient’s drug regimen for any potential interactions, toxicities, inadequacies, or incompatibilities, prior to dispensing drugs to the patient.
- If any irregularity occurs and the pharmacist determines that the situation warrants attention, promptly resolving the issue with the attending physician and documenting the outcome.

Educating:

Responsibility for educating the patient about medications shall be shared by the physician, nurse, and Pharmacist. Documentation and communication between disciplines will be accomplished through the clinical notes or physician notes in patient’s electronic medical record. Pharmacist may be responsible for educating patients when requested about:

- Medications at discharge.
- Food-drug interactions.
- Anticoagulation therapy.
- Pharmacist shall be responsible for providing drug information directly to the patient by offering individual and/or group sessions as ordered by physicians and according to the needs of specific programs.
- Pharmacist shall be responsible for cooperating in teaching programs of the hospital.
- A pharmacist will be available to provide in-service education for nursing personnel on a regular basis and orientation education for new nursing service employees concerning pharmacy policies and procedures.
# Unit Inspection Recording Form

<table>
<thead>
<tr>
<th>Unit/Location:………</th>
<th>Reviewed by:………</th>
<th>Date/Time of inspections:………</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Medication Storage Area</th>
<th>Meets Required Standard</th>
<th>Comments:</th>
<th>Initials:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The door to the Med Room is locked.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The area is clean, neat, and organized.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are no expired, recalled or unusable drugs on the unit.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are no unauthorized drugs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controlled drugs are properly stored.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All medications are in properly labeled bins/ containers.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-dose vials are dated and initialed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All are discarded after 28 days.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medication carts are locked when not in use.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patients’ own medications are properly stored.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Floor Stock Supplies</th>
<th>Meets Required Standard</th>
<th>Comments:</th>
<th>Initials:</th>
</tr>
</thead>
<tbody>
<tr>
<td>All within appropriate expiration date.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintained at an appropriate level.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Refrigerator</th>
<th>Meets Required Standard</th>
<th>Comments:</th>
<th>Initials:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The refrigerator is locked.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refrigerator Temperature is between 36 and 46 F. Record the temperature.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature is checked daily, Record and days missed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refrigerator is clean, organized and free of frost.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refrigerator drugs are properly stored.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All re-constituted drugs have an expiration date and concentration.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Crash Cart Supply</th>
<th>Meets Required Standard</th>
<th>Comments:</th>
<th>Initials:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crash Cart must be locked.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medication tray must be sealed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medication Tray labeled with next expiring medication.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medication Tray Expiration date:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV Fluids Expiration Date:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crash Cart Daily Inspection Log is documented.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Original Effective Date: 1/24/2014
Reviewed/Revised: 6/2014

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POLICY REVIEW PROCESS

Policy:
The Pharmacy and Therapeutics Committee, the Medical Staff and when appropriate, the hospital administration and hospital governing board will approve policies and procedures directly addressing the medication use process.

Procedure:
Policies and procedures addressing the following elements for the medication use process will be drafted by Pharmacy Services, Nursing Services and other departments as needed, in collaboration with the Medical Staff:

• Patient Specific information as related to medication management
• Selection/procurement of medications
• Storage of medications
• Ordering/transcribing of medications
• Preparing/dispensing of medications
• Administering of medications
• Monitoring of medication use
• High-risk medications

The Pharmacy and Therapeutics Committee will review final drafts of policies and procedures. Once approved, they will be forwarded to the Medical Executive Committee and the Governing Body.

Annually, the Director of Pharmacy Services will prepare a summary of procedural changed for the Pharmacy and Therapeutics Committee.
SAFETY PLAN PARTICIPATION

Policy:

- Pharmacy Services shall participate in and observe all hospital-wide safety practices and procedures. Refer to hospital policies and guidelines.

- Computerized Material safety data sheets (MSDS) for pharmacy-related items are available online thru the drug wholesaler website link available in the pharmacy department. MSDS are required for pharmaceuticals determined by the manufacturer to be hazardous. Drugs in solid final form are specifically exempted from MSDS requirements.

- The Director of Pharmacy Services will be responsible for maintaining safety standards, developing safety rules, and supervising and training personnel in departmental safety standards.

- The Director of Pharmacy Services will be responsible for notifying the Risk Manager in case of any safety hazard.

- Personal protective equipment will be used when appropriate.

- Only authorized personnel shall be allowed in the Pharmacy. The door will be locked when no one is in attendance.

- Poisons and narcotics shall have a separate and secure storage place.

- No unidentified substance shall be permitted in the Pharmacy.

- Container labels shall be checked three (3) times: when the item is removed from shelf; when actually used; and when it is replaced on the shelf.

- A bottled liquid shall be poured at such an angle that it does not spill on and obscure the label.

- Liquids shall be poured below eye level. Splashing shall be avoided. Corrosive chemicals shall be handled with extreme care.

- Pharmacists shall fill only one (1) prescription/medication at a time to prevent label mix-ups and other errors.

- Contents of partially empty bottles of drugs shall not be combined.

- Medication refrigerators shall be equipped with thermometers. Drugs and biological agents shall be stored at proper temperatures, according to manufacturer’s recommendations.

- Drugs stored within the Pharmacy and throughout the hospital are under the supervision of a Pharmacist.

- Drugs requiring special conditions for storage to ensure stability shall be properly stored.

- Distribution and administration of controlled drugs will be documented.

- Emergency drugs shall be in adequate supply.

- All drugs shall be labeled properly including the addition of appropriate accessory or cautionary statements.
• Discontinued or outdated drugs and containers with worn illegible or missing labels shall be returned to
the Pharmacy for proper disposal.

• Only the Pharmacist or authorized Pharmacy personnel, under the direction and supervision of the
Pharmacist, shall dispense medications, make labeling changes or transfer medications to different
containers.

• After Pharmacy hours, drugs needed that are not stored in floor stock, (including automated dispensing
machines) before the return of the Pharmacist may be removed from the pharmacy by the designated
Nursing Supervisor/Charge Nurse only. A record of all withdrawals shall be made. Access to the
pharmacy after hours is restricted and only allowed to meet the urgent needs of the patient where delay in
medication administration may cause undue harm.

• Used syringes/needles shall be disposed in a contaminated syringe/needle box. Boxes will be picked up
by Environmental Services and secured in the locked disposal bin to be picked up for proper destruction.
DRUG STORAGE UNIT INSPECTION

Policy:
The Pharmacy staff will inspect all drug storage areas within the hospital at least monthly. The purpose is to ensure proper storage and potency of medications.

Procedure:
A Pharmacy Services designee shall be responsible for monthly inspections of all drug storage areas in the hospital. A written record of these inspections will be maintained.

• When discrepancies are identified, a report, stipulating the corrections needed, will be made to the supervisor of the area and the Director of Nursing.

Inspections shall address at least the following:

• All drug labels must be legible and in compliance with state and federal requirements.

• Test agents, germicides, disinfectants and other household substances shall be stored separately from drugs.

• Drugs for external use in liquid, tablet, capsule or powder form shall be segregated from drugs for internal and injectable use.

• Drugs shall be stored at appropriate temperatures (see Medication Refrigerator/Freezer Temperature policy). Refrigerators shall be neat and free of excessive frost. Drugs requiring freezer storage shall be stored in a freezer.

• Food and non-drugs shall not be stored in the same refrigerators as pharmaceuticals.

• Flammables and combustibles shall not be stored close to a heat source, sparks, or flame which might constitute a hazard.

• Drugs shall be stored in an orderly manner, in well-lit cabinets, shelves, drawers or carts of sufficient size to prevent crowding.

• Drugs shall be accessible only to responsible personnel designated by the hospital.

• Drugs shall not be kept in stock after the expiration date on the label. No unusable drugs shall be stored, distributed, or administered. Unusable drugs include: outdated drugs, broken drug packages and damaged drugs, mislabeled drugs, drugs with illegible labels, deteriorated drugs, contaminated drugs, and recalled drugs. All drugs scheduled to expire during the month of the inspection and on the first day of the next month should be removed from stock and returned to the Pharmacy. Items with upcoming expiration dates should be moved to areas in which they may be used prior to the expiration date.

• Emergency (crash cart) drugs shall be available, at appropriate amounts and dated within the expiration period. There shall be no unusable items in the cart.

• General compliance with all applicable drug-handling procedure shall be observed.

• Any Patients' personal medications shall be stored securely on the unit or sent to Pharmacy for storage, if unable to send the medication home.
• The medication storage area shall be clean, neat and organized. The medication room shall not contain food items.

• Emergency drugs and antidotes, as approved by the Medical Staff, shall be in adequate and proper supply in Pharmacy Services and in designated areas, readily available,

• In the main Pharmacy, each drug storage section shall be inspected monthly for cleanliness, neatness and any unusable/expired drugs. All unusable drugs shall be removed from stock. A record of these monthly inspections shall be kept and maintained in the Pharmacy for three (3) years.
PHARMACY SECURITY

Policy:

Security of the Pharmacy shall be maintained in accordance with federal, state, and local laws. All hospital personnel on duty shall protect Pharmacy assets and record and guard against the theft or diversion of drugs.

Locking Pharmacy Areas:

- All areas occupied by the Pharmacy shall be capable of being locked, to prevent access by unauthorized personnel by force.

- Keys to the pharmacy may only be in the possession of pharmacists and may be obtained from a secure location for after-hours access by authorized personnel only. Authorized personnel who access the pharmacy after hours using the key from the secure location need to log entrance into the pharmacy in the afterhours access log book, in addition the authorized personnel will secure the keys in the secured vial utilizing the zip ties and place the keys back in their secured location.

- Locks to and in the Pharmacy must be rekeyed:
  - When keys are lost
  - In case of theft
  - With changes in personnel, if necessary.

Restricted Access to the Pharmacy:

- Only Pharmacy staff personnel, and, under conditions specified in the After-Hours access to pharmacy policy, designated, trained charge nurses shall be permitted access to the Pharmacy.

- Medical staff, Nursing services, administrative, Environmental Services and other facility personnel are authorized admission in conjunction with their duties and in the presence of and under the supervision of Pharmacy staff.

- The Pharmacy shall limit nonessential traffic (i.e., medical service representatives and visitors).

Pharmacy Lock-Up Procedures:

Pharmacy lock-up procedures shall ensure that drugs are secured and that the Pharmacy is free of hazardous conditions. Lock-up procedures shall include, but shall not be limited to, ensuring that:

- Controlled drugs are secured and locked

- Confidential material is secure

- Nonessential lights and electrical equipment are turned off

- The doors are locked

The Pharmacy door shall be locked at all times.

The Pharmacist will be the only person with a key to the controlled substance cabinet.

Theft of Break-ins:

Break-in, theft, or unexplained loss of drugs shall be reported, in accordance with applicable federal and state laws.
If there is a theft or break-in, the Director of Pharmacy Services shall make a report to:

- Hospital Executive Administrator
- DEA regional office
- The agency responsible for controlled drug regulation in the State of Arizona, if appropriate
- The Arizona Board of Pharmacy
- Local law enforcement, if applicable
- Hospital’s Security Department

Thefts or suspected thefts of controlled drugs shall be reported to the DEA and the State Board of Pharmacy. The Director of Pharmacy Services or the responsible pharmacist on duty shall complete a DEA form 106. A report must also be filed with local law enforcement in the event of a theft.

Copies of all reports shall be filed for at least three (3) years.
DRUG/MEDICAL DEVICE DEFECT REPORTING

Policy:

Pharmacy Services participated in the Food and Drug Administration’s MedWatch Program. A voluntary program for reporting defects in medication or medical devices.

Definition:

A defect is defined as “inaccurate or unreadable labeling, packaging or product mix-ups, suspected contamination, questionable stability, or the presence of particulate matter in parenteral products”.

Procedure:

Pharmacy Services staff will report adverse events or product problems that are associated with serious outcomes such as prolonged hospitalization, life-threatening complications, permanent disability, congenital abnormality, medical or surgical intervention required, or death. Pharmacy Services staff will encourage reporting by all hospital staff.

Pharmacy Services staff will report about products that have been on the U.S. market for relatively short time (about 3 years or less). Pharmacy Services staff will encourage reporting by all hospital staff.

To report a drug of medical device problem, a FDA form 3500 (MedWatch) will be completed. The form is available from Pharmacy Services. Reports may also be filed online at https://www.accessdata.fda.gov/scripts/medwatch/medwatch-online.htm
MEDICATION REFRIGERATION/FREEZER STORAGE

Policy:

All refrigerated drug storage areas will be inspected daily to ensure appropriate storage conditions are met, in order to maintain stability of medications stored in patient care areas and within the Pharmacy.

Definitions:

• Refrigerator room temperature range: 36 degrees to 46 degrees F (2 to 8 degrees C)
• Freezer temperature range: -4 degrees to 14 degrees F (-20 to 10 degrees C)
• Room temperature range: 59 degrees to 86 degrees F (15 to 30 degrees C)

Procedure:

• All refrigerators/freezers that store medications will be monitored daily for adequate temperature control. Refrigerator and freezer temperatures in the Pharmacy department and all medication storage areas will be checked and logged daily. Nursing staff will be responsible for checking and logging temperatures in all medication storage areas outside the Pharmacy.

• Daily temperatures will be logged on the “Medication Refrigerator/Freezer Log”. The log must include the date, temperature and the initials of the person checking. On days in which the pharmacy is closed the temperature logs within in the Pharmacy must me signed as “closed”.

• If refrigerator temperature falls out of 36 degrees to 46 degrees F range (2 to 8 degrees C) or freezer temperature falls out of -4 degrees to 14 degrees F range (-20 to 10 degrees C), the Maintenance Department AND Pharmacy Services must be notified immediately and corrective actions must be documented on the Refrigerator Log. The name of the person and/or department notified and the time of notification must also be documented.

• It shall be the Pharmacist’s responsibility to determine the stability/usability of the drugs stored. The Pharmacist must document the call on a hospital incident report.

• If the Maintenance Department cannot fix the problem in a timely manner (less than 24 hours), the medications must be moved and stored in another refrigerator or freezer until the unit is repaired/replace and maintains the required temperature ranges.

• Pharmacy Services will be responsible for a monthly review of the logs. The review will be documented by the Pharmacy in the monthly floor inspection report and filed in the Pharmacy.

• For extended periods (e.g. weekends) when the Pharmacy is closed and to insure that the refrigerator and freezer temperatures stayed within accepted limits and power was uninterrupted, an alternate monitoring method will be used. This alternative method includes a continuous temperature recording device that indicated historical temperatures and would indicate if there was a period of time in which the temperature was outside the acceptable range. Any evidence of variance outside the accepted range must be documented and the procedure for out-of-range temperatures be followed.

• All drugs requiring freezer temperature storage will be stored in the Pharmacy.

• Individuals designated by the area supervisor will inspect drug storage refrigerators on non-nursing units daily and log findings according to the procedure above. Compliance with the requirement will be monitored monthly during the unit inspection performed by the Pharmacy staff.
JOB DESCRIPTION – DIRECTOR OF PHARMACY SERVICES

Job summary: Plans, directs, and coordinates the activities of the pharmacy to ensure effective innovative and cost-effective pharmacy services. Interprets medication orders, compounds and dispenses medications and other pharmaceutical preparation in accordance with the legal, ethical and professional standards of pharmacy practice.

Job Duties and Responsibilities:

1. Develops and implements short- and long-term goals and objectives for the department.
2. Directs the professional, technical and educational activities of the department.
3. Supervises employees; makes decision regarding hired, promotions, salary adjustments, and disciplinary action in accordance with personnel policies; evaluates employee performance.
4. Trains and/or directs training of any ancillary pharmacy staff (PRN staff, technicians, etc.).
5. Reviews new policies and procedures, new drugs and/or technologies, and addresses problems with pharmacy staff.
6. Maintains timely and accurate communications with the hospital administration on the activities of the department.
7. Cooperates and maintains good working relations with other departments and hospital personnel. Responds readily to requests/recommendations from the hospital.
9. Develops, administers and secures approval for departmental policies and procedures.
10. Directs and coordinates purchasing, receiving, pricing, storing and dispensing of all pharmaceuticals used in the hospital; establishes specifications on quality and source for all pharmacy supplies.
11. Maintains required records for controlled substances.
12. Maintains adequate staffing in the department.
13. Dispenses medications and pharmaceuticals, including controlled substances, in compliance with departmental policies, state and federal regulations, and professional standards.
14. Prepares and/or supervises the preparation of medications.
15. Maintains records and compiles data to document and ensure compliance with all hospital and corporate policies and procedures and with applicable local state, federal and accreditation regulations.
16. Consults with and advises medical and nursing staffs on matters related to drugs and drug products; consultations are documented in the intervention Log.
17. Directs the maintenance and review of patients charts; ensures confidentiality of patient information.
18. Provides drug information to health care professionals and patients.
19. Participates in treatment planning as requested.
20. Maintains proficiencies through continuing education.
21. Designs, implements and evaluates methods to improve the quality, extent and efficiency of pharmacy services; works with the medical staff, hospital administration, and provide quality, cost effective services.

22. Ensure quality management measures are observed and appropriate records maintained.

23. Directs activities of the Pharmacy and Therapeutics Committee and participates in the hospital’s medication use program.

24. Participate in the hospital’s Safety and Infection Control programs; attends required in services.

25. Manages the hospital’s formulary.

26. Assures maintenance of the charge master databases.

27. Follows approved purchasing and inventory policies and procedures to provide needed medications and pharmaceuticals and to contain costs.

28. Provide needed financial information in timely manner to hospital.

29. Participates in the hospital’s efforts to analyze and contain drug costs.

30. As required by the hospital, participates in the budgeting process; maintains expenses and revenues within budget limits.

31. Any other assigned duties.

Requirements:

Doctor of Pharmacy degree or Bachelor of Science Degree from an accredited College/School of Pharmacy; current licensure to practice or eligible for a license to practice in the state of Arizona; competency with age groups served by this hospital; management training or equivalent managerial experience; basic skills in computer knowledge, automated pharmacy dispensing, IV laminar flow hood; effective communication skills in English, both verbal and written.

Experience:

Two years hospital pharmacy experience; excellent communication skills; and a working knowledge of Performance Improvement, Medication Use Programs, pharmacy computer systems, and inventory management.

Physical Requirements:

Lifting up to 25 pounds, reaching above the shoulder, use of fingers, both hands required or compensated by the use of acceptable prostheses, prolong standing and walking, kneeling, bending, both legs required, ability for rapid mental and muscular coordination simultaneously, near vision correctable at 13” to 16” Jaeger 1 to 4, far vision correctable to one eye to 20/20 and to 20/40 in the other, depth perception, hears (aide permitted) conversational voice 15 feet in one ear.

Environmental Factors:

Working with hands in water, working closely with others, extensive computer data entry, protracted or irregular hours of work

Reports to: Hospital Director of Nursing

Employee Signature ___________________________ Date ____________________
RDO Signature ___________________________ Date ____________________
Facility Administrator ___________________________ Date ____________________

Original Effective Date: 1/24/2014
Reviewed/Revised: 6/2014
JOB DESCRIPTION - PHARMACY TECHNICIAN

Job Summary: Performs technical support functions in the Pharmacy department under the supervision of a registered pharmacist.

Job Duties and Responsibilities:

1. Keeps the Director of Pharmacy informed about the activities of the department.
2. Maintains good working relationships within the pharmacy and with other departments.
3. Responds readily to requests/recommendations from the hospital and pharmacist.
4. Employs problem-solving techniques.
5. Complies with hospital and pharmacy department policies and procedures, state and federal regulations.
6. Maintains medication stock throughout the hospital.
7. Fills and delivers medication orders as required.
8. Prepares intravenous admixture solutions.
9. Performs repacking duties as required.
10. Maintains a clean pharmacy area.
11. Participates in the quality management programs of the department.
12. Assists with collection and recording statistical Quality Control information.
13. Performs monthly nursing unit and pharmacy inspections.
14. Maintains proficiencies through continuing education.
15. Complies with hospital’s Safety and Infection Control programs; attends required in services.
16. Complies with hospital and pharmacy department policies regarding inventory, purchasing, receiving and storing all pharmaceuticals.
17. Performs charge functions.
18. Assists in maintaining and properly storing an adequate inventory of items; rotates stock and checks expiration dates.
19. Processes orders with wholesalers and manufacturers and checks in stock.
20. Performs any other assigned duties, as necessary.

Requirements: High school graduate or equivalent; appropriate certificates or licenses required for the position; competency with age groups served by this hospital; basic skills in computer knowledge; typing skills; IV laminar flow hood knowledge or willingness to learn; ability to read. Write and speak effectively in English.

Experience: Minimum of two-years of related pharmacy experience.

Original Effective Date: 1/24/2014
Reviewed/Revised: 6/2014
**Physical Requirement:** Lifting up to 25 pounds, reaching above the shoulder, use of fingers, both hands requires or compensated by the use of acceptable prostheses, prolong standing and walking, kneeling, bending, both legs required, ability for rapid mental and muscular coordination simultaneously, near vision correctable at 13” to 16” Jaeger t1 to 4, far vision correctable to one eye to 20/20 and to 20/40 in the other, depth perception, hears (aide permitted) conversational voice 15 feet in one ear.

**Environmental Factors:** working with hands in water, working closely with others, extensive computer data entry, protracted or irregular hours of work.

**Reports To:** Director of Pharmacy.

Employee Signature ___________________________ Date ________________

Supervisor Signature ___________________________ Date ________________

Facility Administrator ___________________________ Date ________________
PHARMACY TECHNICIAN TRAINING

Purpose: To establish a Pharmacy Technician training program at Cochise Regional Hospital.

Policy: All pharmacy technicians will complete the training program successfully within the first 90 Days of employment.

Procedure: Pharmacy Technician Training.

Pharmacy Technician Trainee

1. Start procedure for obtaining Technician Training License, if not already completed.
2. Tour of the Hospital, introductions to hospital staff.
3. Tour of the Pharmacy and hospital medication areas.
   - Locations of computers and phones.
   - Phone etiquette.
   - The different work areas and functions applicable in each.
   - All medication storage areas, crash cart locations, floor stock.
4. Inventory and refill floor stock medications, remove expired and beyond-usage medications from patient care areas and pharmacy stock. Maintain medications and supplies sufficient to meet hospital needs. Understand process for drug recalls.
5. Interpret written medication orders and accurately prepare medications for patient dispensing. Leaves medications for pharmacist verification.
6. Demonstrate compliance with all applicable regulations on the acquisition, maintenance and auditing of controlled medications.
7. Learn competency in daily billing processes and problem-solving, updating prices, crediting and end-of month financial reports. Maintain a readily retrievable filing system for all billing, narcotic and ancillary records.
8. Learn and demonstrate competency in repackaging oral and liquid medications. Repackaged medications are labeled according to state regulations.
9. Inspect hospital departments and pharmacy monthly for proper drug storage conditions and security requirements.
10. Comply with pharmacy and hospital policies.
11. Learn drug acquisition process: initiate, receive and verify acquisition orders and maintain invoice files.
12. Review policies and procedures of the pharmacy department.
13. When technician trainee reaches lear-day probationary period, he/she will be evaluated on ability to perform these procedures and competencies signed off and dated.
Certified Pharmacy Technicians

1. Shall provide certification documentation
2. Have Arizona State License or proof of application
3. Complete section above for technician trainee
4. Learn and demonstrate proficiency in compounding sterile products:
   (a) Sterile area preparation
   (b) Component preparation
   (c) Aseptic technique
   (d) Product preparation
   (e) Clean-up

   The pharmacist in charge shall observe the technician in the IV hood and document observed competency level. Must be evaluated and documented as competent before compounding sterile IV products without immediate pharmacist supervision.
5. Successfully complete the CRH pharmacy technician competency test, which includes IV competency assessment questions.
6. Successfully complete sterile testing/ IV room technique validation.
COCHISE REGIONAL HOSPITAL
DEPARTMENT OF PHARMACY SERVICES

Criteria based job description competence assessment/ performance evaluation for Certified Pharmacy Technicians.

Type of evaluation: ☐ New employee  ☐ Annual Evaluation  ☐ Self-assessment
Employee Name: ___________________________ Date:

Job Title: Certified Pharmacy Technician

Job Summary: Under the direct supervision of a Pharmacist, the Pharmacy Technician assists in preparing and distributing medications, maintaining drug inventory, maintaining billing and patient records and other support functions in the pharmacy.

Reports to: Director of Pharmacy

I. Principal Duties/Responsibilities

<table>
<thead>
<tr>
<th>Performance Criteria/Standards</th>
<th>Rating</th>
<th>Comments</th>
</tr>
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<tbody>
<tr>
<td>Interprets written medication orders, prepares and packages drugs for inpatient dispensing accurately.</td>
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<tr>
<td>Prepares IV admixtures or other sterile products accurately.</td>
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<tr>
<td>Replenishes medication kits or boxes, floor stock requisitions, and emergency crash cart trays accurately</td>
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<tr>
<td>Delivers medications and supplies to patient care and ancillary areas per established schedule</td>
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B. Maintains adequate stock of medications and supplies according to established policies and procedures.

<table>
<thead>
<tr>
<th>Primary duties and responsibilities</th>
<th>Rating</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>Performs ordering, receiving, unpacking and storing pharmaceuticals and supplies.</td>
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<tr>
<td>Rotates stock to ensure use before expiration</td>
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<tr>
<td>Completes and documents inspections of all assigned medication storage and</td>
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</table>
preparation areas at least monthly.

Checks, reconciles and replaces flood stock accurately. Identifies and replaces outdated and unusable drugs

Accurately restocks and maintains neat order of automated dispensing machines

**Secondary duties and responsibilities**

Checks and records pharmacy refrigerator temperatures.

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### C. Contributes to the effective operation of the Department

<table>
<thead>
<tr>
<th>Primary Duties and Responsibilities</th>
<th>Rating</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Records charges and credits for patient medications accurately</td>
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<tr>
<td>Records charges and credits for departmental floor stock accurately</td>
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<tr>
<td>Generates medication and billing reports as required</td>
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<tr>
<td>Answers requests at window efficiently</td>
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<tr>
<td>Answers telephone, identifies self and Department, directs calls appropriately</td>
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<td></td>
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<tr>
<td>Keeps pharmacy area and equipment clean and well organized</td>
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<tr>
<td>Organizes and prioritizes work assignments</td>
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<tr>
<td>Maintains logs, records and other required documentation accurately, Files documentation in appropriate locations</td>
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<tr>
<td>Demonstrates good oral and written communication</td>
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<tr>
<td>Reports, corrects and avoids medication and dispensing errors</td>
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### II. Maintains competence required for current Job position

<table>
<thead>
<tr>
<th>Primary Duties and Responsibilities</th>
<th>Rating</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completes all competence/skills assessment requirements (see attached competence assessment skills list)</td>
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</table>

**Secondary Duties and Responsibilities**

- Participation in orientation, education and training programs. Reviews literature and other materials as assigned
- Attends interdisciplinary meetings
- Performs other duties as assigned

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Original Effective Date: 1/24/2014
Reviewed/Revised: 6/2014
### III. Departmental Standards

<table>
<thead>
<tr>
<th>Performance Criteria/Standards</th>
<th>Rating</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is punctual and dependable. Absenteeism and tardiness are within policy guideline. Works overtime when required.</td>
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<tr>
<td>Performs work within specified time frames. Adapts positively to frequent interruptions and changes in workload and/or work schedule</td>
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<tr>
<td>Provides courteous, cooperative and timely service to patients and staff.</td>
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<tr>
<td>Works cooperatively with all staff. Voices concerns and suggestions to appropriate persons in a positive manner.</td>
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<tr>
<td>Demonstrates sound professional judgment consistent with clinical background</td>
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<tr>
<td>Adheres to departmental policies and procedures. Complies with all requirements related to risk management, safety, fire and infection control. Performs all duties under the direct supervision of a registered pharmacist.</td>
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</tbody>
</table>

**Secondary Duties and Responsibilities**

<table>
<thead>
<tr>
<th>Performance Criteria/Standards</th>
<th>Rating</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintains a neat, professional, well-groomed appearance. Wears identification badge at all times</td>
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<tr>
<td>Fosters a team environment by assisting coworkers and other staff perform tasks</td>
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<tr>
<td>Maintains strict confidentiality of patient, visitor and employee information</td>
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</table>

### IV. Organizational Standards

<table>
<thead>
<tr>
<th>Performance Criteria/Standards</th>
<th>Rating</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance demonstrates efforts to improve patient satisfaction, lower cost and quality improvements</td>
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<tr>
<td>Understands and meets customer's needs and expectations. The patient and family members always come first</td>
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<tr>
<td>Demonstrates the ability to address problems in a group setting</td>
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</tr>
<tr>
<td>Demonstrates the values and service principles of the organization</td>
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</tbody>
</table>
I hereby acknowledge that I have received a copy of the Arizona Board of Pharmacy rules relating to permissible activities of pharmacy technicians and pharmacy technician trainees. Specifically, I have reviewed and acknowledge understanding Arizona Board of Pharmacy rules and regulations R4-23-1 103 through R4-23-1 105.

I have also reviewed my job description and a copy of the Pharmacy Department policy and procedure manual.

I understand that I am held accountable for following these state rules as well as all departmental policies and procedures. I am also aware that a copy of the Board of Pharmacy rules and the policy and procedure manual is available in the Pharmacy Department for me to review at any time.

Employee Signature _________________________ Date ____________
This document confirms that the following employee has successfully completed the Pharmacy Technician Training Program at Cochise Regional Hospital and has passed the Pharmacy Technician Certification Board (PTCB) Examination.

EMPLOYEE NAME: ______________________________________________________

DATE: ________________________________

PTCB NUMBER: ______________________________________________________

PHARMACIST-IN-CHARGE: ____________________________________________
COCHISE REGIONAL HOSPITAL PHARMACY TECHNICIAN COMPETENCY EXAM
INCLUDES IV COMPETENCY

Name __________________ Date ______________ Score ______

1. Which of the following statements is true?
   A. Controlled substances records must document amounts wasted.
   B. Reconstituted medications should be labeled with the reconstitution date
   C. Dispensing records do not have to be maintained for medication samples
   D. A and B
   E. A and C

2. What is Cochise Regional Hospital’s policy on:
   - The use of patient's own medications?
   - The use of drug samples on Acute Care?
   - Afterhours access to the Pharmacy?

3. Ceftriaxone 1 gram is diluted with 10 ml of sterile water.
   A. How many 1 Gm vials are needed to make 6 IV piggybacks of 350mg each?

   B. What volume of reconstituted ceftriaxone represents 350mg?

3. List 4 characteristics that would cause a medication to be unusable.

   1.

   2.

   3.

   4.
5. Identify the high-risk medications that are allowed as floor stock in patient care units by checking as yes or no:

- [ ] 25,000 unit Heparin infusion IV piggybacks
- [ ] Calcium chloride 1 Gram inj.
- [ ] Potassium chloride 20 mEq inj. Vials
- [ ] Heparin 10,000 unit inj. Vials
- [ ] Potassium chloride 40 mEq oral sol'n
- [ ] Warfarin 10mg tablets
- [ ] Sodium chloride 3% IV solutions
- [ ] Heparin 5,000 unit inj vials

6. Concentrated sodium chloride for injection is 4 mEq/ml
   A. 15 mEq = [ ] ml
   B. 144 mEq = [ ] ml

7. When using an additive packaged in a glass ampule, it is necessary to use only one needle and syringe for the transfer to an IV admixture.
   A. True
   B. False

8. When breaking a glass ampule in the laminar flow IV hood, it is best to break it towards the back of the hood.
   A. True
   B. False

9. An IV fluid is running at 70 ml/hour-how many 1 liter bags are needed over a 3 day period?

10. Concentrated sodium phosphate (NaPO4) is 3 millimoles/ml (mM/ml). Each mM is equal to 1.33 mEq of NaPo4.
    a. 15mM = [ ] ml
    b. 25mM = [ ] ml
    c. 25mEq = [ ] ml

11. Which is the most frequent cause of the contamination of a compounded IV product?
    A. Placing of unwiped vials in the IV hood.
    B. Failure to clean the hood surface prior to IV preparation.
    C. Inadvertent touch contamination by person compounding
    D. Failure to alcohol wipe rubber stoppers prior to needle insertion.
    E. Talking while compounding products in the IV hood
12. Normal saline (NS) is 0.9% NaCl in water. Concentrated NaCl is available as a 23.4% solution for injection. How much volume of the concentrated NaCl is needed to make a 500ml IV bag of D5W/NS from a 500ml bag of D5 W? (Hint: 0.9% NaCl = 0.9 Grams NaCl/ 100ml).

13. List 3 precautions that may be taken for medications stocked in the automated dispensing system and in floor stock areas of patient care areas to reduce the potential for medication errors.
   1. 
   2. 
   3. 

14. Which types of insulin can be used in TPN's (total parenteral nutrition) or in insulin drips?
   ____ insulin glargine (Lantus)
   ____ Regular human insulin
   ____ 70/30 insulin
   ____ insulin lispro (Humalog)
   ____ NPH insulin

15. Which is the safest way (avoid hood contamination) to reconstitute a hazardous medication that comes as a dry powder in a 10 ml vial and is needed for IV admixing?
   A. Inject 10ml of diluent, then withdraw 10 ml of air.
   B. Inject 5ml of diluent, withdraw > 5ml of air, repeat again.
   C. Withdraw > 10 ml of air, then add 10ml of diluent

16. For dosing drugs, one can assume that a child is a small adult.
   A. True
   B. False

17. Which of the following analgesic medications should not be administered to a patient with a history of aspirin and sulfa drug allergies, without questioning the prescriber?
   A. Acetaminophen
   B. Vicodin
   C. Ketorolac (toradol)
   D. Celebrex
   E. Percocet
   F. Percodan

18. Process validation for IV compounding procedures can be done by evaluating a person's aseptic technique.
   A. True
   B. False
19. The sterile parts of a syringe that may never he touched are:

A. The barrel and plunger
B. The barrel and tip
C. The plunger and tip
D. The barrel, plunger and tip

20. The overwrap packaging of IV fluids should be removed ____________ prior to IV admixing.

A. In the pharmacy before entering the clean IV room
B. In the IV hood just prior to admixing
C. In the IV hood prior to cleaning the surface
D. Just outside the hood prior to admixing

21. Which IV fluids are acceptable for IV administration to patients (peripheral IV access)?

- DSNS with 20mEq Kell liter at 1000 ml/hour
- Normal Saline at 1000 ml/hour
- Dextrose 50% at 100 ml/hour
- 3% Normal Saline at 50 ml/hour
- Sterile water 1000m1 at 75 ml/hour

22. Risk Level I IV products should be:

A. Stored at room temperature and administered within 24 hours of preparation
B. Refrigerated for 14 days or less (manufacturer specifications) and administered over a period of 24 hours or less.
C. Refrigerated for 30 days or less and administered with an in-line IV filter.

23. The minimum distance inside the front edge of the hood for compounding sterile IV products is:

A. 6 inches
B. 12 inches
C. 2 inches
D. 8 inches

24. Which of the following medications should be questioned prior to dispensing for an inpatient child with a history of a severe allergic reaction to penicillin?

- Metronidazole
- Cefoxitin
- Zosyn (piperacillin/ Tazobactam)
- Augmentin
- Azithromycin
25. Which of the following is not required for proper labeling of all medications loaded into the Automated dispensing system?
   A. Expiration date
   B. Brand name of drug
   C. Drug strength
   D. NDC number
   E. Manufacturer’s lot number
   F. B and E
   G. E and F
   H. B, E and F

26. Which of the following are requirements of a controlled substance medication order for an inpatient at Cochise Regional Hospital? (check all that apply)

   _______ Patient’s room number
   _______ Medication name and strength
   _______ Prescriber’s signature
   _______ Prescriber’s DEA number
   _______ Date and time of order
   _______ No use of unapproved abbreviations, (QD, or Mso4)
   _______ Patients name and date of birth or account number
   _______ Frequency of medication administration
   _______ Route of medication administration

27. It is acceptable for a trained and certified pharmacy technician to be working in the pharmacy when the pharmacist is in an administrative meeting at the hospital.

   A. True
   B. False

28. It is allowable for a trained and certified pharmacy technician to dispense any OTC (non-prescription drugs) for patient use as long as it is dispensed to an RN (Registered nurse).

   A. True
   B. False
29. Outdated or expired medications which cannot legally be used for hospital patients, may be given to hospital employees for their own personal use.
   A. True
   B. False

30. Which of the following would likely lead to an increase or decrease in the number of observed medication errors: (Indicate increase, decrease or no effect)
   ______ Using the letter "U" for ordering and labeling of products measured in units.
   ______ Requiring that 2 nurses check mathematical calculations for medication preparation
   ______ Handwritten labeling of medications and IV solutions
   ______ Using a patients’ room number as an identifier
   ______ Limiting the available concentrations of high-risk medications
   ______ Allowing verbal orders in the ER for the physician’s convenience
   ______ Delete having to use a preceding zero for medications dosed in microgram quantities.
      I.e. digoxin .125 mg preferred over 0.125 mg.
PERFORMANCE EVALUATION AGE-RELATED COMPETENCY
DIRECTOR OF PHARMACY SERVICES

Name: ___________________________________________       Date: ____________________

Position: ___________ Director of Pharmacy Services ___________ Evaluator: ____________________

Unit: ____________________

Age Range of Patients to Whom Service is Provided: Neonate through Geriatric ___________

Specialty Patients to Whom Service is Provided: General Acute Care ___________

<table>
<thead>
<tr>
<th>COMPLIANCE CRITERIA</th>
<th>M</th>
<th>NC</th>
<th>N/A</th>
<th>COMMENTS</th>
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</thead>
<tbody>
<tr>
<td><strong>NEONATE/INFANT</strong> <em>(Newborn to 2 years)</em></td>
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<tr>
<td>Demonstrates knowledge of the differences in drug absorption, distribution, metabolism, and elimination for neonatal patients compared to adult patients.</td>
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<tr>
<td>Demonstrates understanding of disease processes that impact drug therapy, including conditions frequently encountered in premature infants.</td>
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<tr>
<td>Demonstrates knowledge of which medications are potentially lethal in neonatal patients.</td>
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<td>Demonstrates understanding that adult-only concentrations and multiple-dose vials containing lethal amounts of medications should not be stored in neonatal patient care areas.</td>
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<tr>
<td>Demonstrates understanding that neonatal patients have an increased potential for adverse drug reactions.</td>
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<tr>
<td>Demonstrates understanding that drug dosages should be based on information in the product information and neonatal dosage publications, when available.</td>
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<tr>
<td>Demonstrates understanding of the importance of preparing accurate dilutions of commercially available products. Demonstrates appropriate procedures for preparing dilutions.</td>
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<tr>
<td>Demonstrates knowledge of routes and methods of administration utilized in neonatal patients. Demonstrates understanding that medications may be retained in administration devices and the implications for the patient.</td>
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<tr>
<td>Demonstrates knowledge of the following IV delivery systems: IV push, retrograde administration, syringe pumps, and volumetric chamber devices.</td>
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<td>COMPLIANCE CRITERIA</td>
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<tr>
<td>Demonstrates understanding of the potential for fluid overload with IV administration and demonstrates knowledge of the maximum amounts of IV fluids that may be administered to neonatal patients.</td>
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<tr>
<td>Demonstrates ability to monitor neonates for avoidance of drug-drug, drug-food, and drug-disease interactions and evidence of adverse drug reactions, overdose, and other drug-related problems.</td>
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<tr>
<td>Demonstrates ability to monitor drug therapy and make recommendations to manage drug-related problems and ensure positive therapeutic outcomes in neonates.</td>
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<tr>
<td><strong>PEDIATRICS (2-11 years) and ADOLESCENTS (12-19 years)</strong></td>
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<tr>
<td>Demonstrates knowledge of the differences in drug absorption, distribution, metabolism, and elimination for pediatric and adolescent patients compared to adult patients.</td>
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<tr>
<td>Demonstrates understanding that pediatric and adolescent patients have an increased potential for adverse drug reactions.</td>
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<tr>
<td>Demonstrates understanding that basing dosages for pediatric and adolescent patients on body surface area is better than using dosing rules. Demonstrates ability to calculate doses based on body surface area.</td>
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<tr>
<td>Demonstrates understanding that guiding patient drug therapy based on serum drug concentrations is best.</td>
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<td>Demonstrates knowledge of routes and methods of administration utilized in pediatric and adolescent patients. Demonstrates understanding that medications may be retained in administration devices and the implications for the patient.</td>
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<td>Demonstrates ability to monitor pediatric and adolescent patients for avoidance of drug-drug, drug-food, and drug-disease interactions and evidence of adverse drug reactions, overdose, and other drug-related problems.</td>
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<tr>
<td>ADULT</td>
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<tr>
<td>Demonstrates understanding that biological functions (e.g., kidney function and liver function) may begin to decline with age.</td>
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<td>Demonstrates understanding that patients may have multiple, concurrent disease states. Considers presence of multiple disease states when managing drug therapy.</td>
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<tr>
<td>Demonstrates understanding that patients may have physical or psychological barriers that may make it difficult to understand instructions for how to take their medications. Modifies patient education methods to address these barriers.</td>
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<tr>
<td>Demonstrates understanding that stress and lifestyle choices can have a pronounced effect on biological functions.</td>
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<tr>
<td>Demonstrates understanding that all patients, including adult patients are susceptible to serious adverse drug reactions (ADF2s).</td>
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<td>Demonstrates understanding of precautions utilized to reduce the incidence of ADRs.</td>
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<td>Demonstrates understanding that dose adjustment may be required if patient weight varies significantly from normal adult body weight.</td>
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<td>Demonstrates understanding that multiple drug therapy presents an increased potential risk for drug-drug interactions and noncompliance.</td>
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<tr>
<td>Demonstrates ability to monitor adult patients for avoidance of drug-drug, drug-food, and drug-disease interactions and for evidence of adverse drug reactions, overdose, and other drug-related problems.</td>
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<td>Demonstrates ability to make recommendations to manage drug-related problems and ensure positive therapeutic outcomes in adult patients.</td>
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<tr>
<td>GERIATRIC</td>
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<tr>
<td>Demonstrates understanding that biological functions (e.g., kidney function and liver function) may be decreased in geriatric patients.</td>
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<td>COMMENTS</td>
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<td>Demonstrates understanding that stress and lifestyle choices in geriatric patients may have a more pronounced effect on biological functions than in younger patients.</td>
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<tr>
<td>Demonstrates understanding that all patients, including geriatric patients are susceptible to serious adverse drug reactions (ADRs).</td>
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</tbody>
</table>
- Staff member is competent to provide care and services to age range indicated.

- Staff member is competent to provide care and services to specialty patients indicated.

- Staff member requires further education to provide care and services to age range or specialty patients indicated.
  
  Scheduled date of re-review: ______________

  Comments:

Reviewer’s Signature: ___________________________  Reviews Date: ___________________________
PERFORMANCE EVALUATION AGE-RELATED COMPETENCY PHARMACY TECHNICIAN

Name: ___________________________ Date: _________________

Position: Pharmacy Technician Evaluator: ____________________

Unit: ____________________

Age Range of Patients to Whom Service is Provided: Neonate through Geriatric

Specialty Patients to Whom Service is Provided: General Acute Care

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| PEDIATRICS (2-11 years) and ADOLESCENTS (12-19 years) | | | | |
| Demonstrates understanding that adult-only concentrations and multiple-dose vials containing lethal amounts of medications should not be stored in pediatric and adolescent patient care areas. | | | | |
| Demonstrates understanding of the importance of preparing accurate dilutions of commercially available products. Demonstrates appropriate procedures for preparing dilutions. | | | | |
| Demonstrates understanding that pediatric and adolescent patients have an increased potential for adverse drug reactions. | | | | |

| ADULT | | | | |
| Demonstrates the ability to identify drug dosage requirements for adult patients. Consults Pharmacist with any doubts or questions. | | | | |
| Demonstrates understanding that all patients, including adult patients are susceptible to serious adverse drug reactions (ADRs). |  |  |  | COMMENTS |
| Demonstrates understanding of precautions utilized to reduce the incidence of ADRs. |  |  |  |  |
| Demonstrates understanding that dose adjustment may be required if patient weight varies significantly from normal adult body weight. |  |  |  |  |
| Demonstrates understanding that multiple drug therapy presents an increased potential risk for drug-drug interactions and noncompliance. |  |  |  |  |

**GERIATRIC**

<p>| Demonstrates the ability to identify drug dosage requirements for geriatric patients. Consults Pharmacist with any doubts or questions. |  |  |  |  |
| Demonstrates understanding that all patients, including geriatric patients are susceptible to serious adverse drug reactions (ADRs). |  |  |  |  |
| Demonstrates understanding of precautions utilized to reduce the incidence of ADRs. |  |  |  |  |
| Demonstrates understanding that geriatric patients may require decreased dosages. |  |  |  |  |
| Demonstrates understanding that multiple drug therapy presents an increased potential risk for drug-drug interactions and noncompliance. |  |  |  |  |
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</table>

Comments:

Reviewer’s Signature: ______________ Review Date: ______________
# ANNUAL SKILLS COMPETENCY PERFORMANCE EVALUATION

## DIRECTOR OF PHARMACY SERVICES

1 = Cannot Perform Skills Independently  
2 = Requires Some Assistance to Perform Skills  
3 = Can Perform Skill Independently  
N/A = Not Applicable

<table>
<thead>
<tr>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<tbody>
<tr>
<td>What is the procedure for receiving pharmaceuticals?</td>
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<tr>
<td>What procedure is followed for adding or deleting medications to the hospital formulary?</td>
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<tr>
<td>What procedure is followed to ensure that the pharmacist verifies every non-urgent medication order before medications are dispensed to the patient?</td>
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<tr>
<td>What procedure is followed when dispensing medications?</td>
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<tr>
<td>What procedure is followed to document and report pharmacist's interventions?</td>
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<tr>
<td>What procedure is followed to dispense medications with therapeutic interchanges?</td>
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<tr>
<td>What procedure is followed when the onsite pharmacy is closed?</td>
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<tr>
<td>Ensures all medications are distributed to patients in the hospital according to existing state and federal laws. Maintains the appropriate records.</td>
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<tr>
<td>Verifies all medication orders.</td>
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<td>Pharmacy Clinical Programs:</td>
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<tr>
<td>• Renal Monitoring &amp; Dosing</td>
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<tr>
<td>• Anticoagulation</td>
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<tr>
<td>• Aminoglycosides</td>
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<td>• Vancomycin</td>
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<tr>
<td>• Therapeutic Interchange/Generic Substitution</td>
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<td>• Other (list here)</td>
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<td>Therapeutic Drug Monitoring:</td>
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<tr>
<td>• Clinical Laboratory Values</td>
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<td>• Drug Concentration Blood Draw Scheduling</td>
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<td>• Anticoagulation</td>
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<td>Responsibility</td>
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<td>Medication/Drug Use Evaluation</td>
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<td>• Code Blue Team Responsibilities</td>
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<td>• Eye Medications</td>
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<td>• Computer Software Programs:</td>
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<tr>
<td>• Pharmacy Drug Order Computer</td>
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<tr>
<td>• Drug Wholesaler's Electronic Catalog/Ordering System</td>
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<td>• Email</td>
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<td>• Internet-based PharmaSource Clinical Services Files</td>
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<td>• Microsoft Word, Microsoft Excel</td>
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<td>• Automated Dispensing Machines</td>
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<tr>
<td>Narcotics</td>
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<tr>
<td>• Discharge Prescriptions</td>
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<td>NA</td>
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<tr>
<td>• Patient Self-Administration of Medications</td>
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<tr>
<td>• Ordering Medications</td>
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<td>• Borrowing Medications</td>
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<td>• IV Guidelines</td>
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<td>• IV Batch</td>
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<td>• Drug-Drug Interactions</td>
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<td>• Medication Errors</td>
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<td>• Medication Recalls</td>
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<td>Order Confirmation</td>
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<td></td>
<td>NA</td>
</tr>
<tr>
<td>Patient and Family Education</td>
<td></td>
<td></td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td>• Staff Education/In Services</td>
<td></td>
<td></td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td>Performance Improvement</td>
<td></td>
<td>NA</td>
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<td></td>
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<tr>
<td>• Data Collection</td>
<td>1 2 3</td>
<td>NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Documentation</td>
<td>1 2 3</td>
<td>NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Implementation/Follow-up</td>
<td>1 2 3</td>
<td>NA</td>
<td></td>
<td></td>
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</tbody>
</table>

**Age Specific Care**

<table>
<thead>
<tr>
<th>Age Specific Care</th>
<th></th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Neonatal Dosing</td>
<td>1 2 3</td>
<td>NA</td>
</tr>
<tr>
<td>• Pediatric and Adolescent Dosing</td>
<td>1 2 3</td>
<td>NA</td>
</tr>
<tr>
<td>• Geriatric Dosing</td>
<td>1 2 3</td>
<td>NA</td>
</tr>
</tbody>
</table>

Demonstrates competency in the knowledge of the delivery of patient care in an environment that optimizes patient safety and reduces the likelihood of medical/health care errors.

| | 1 2 3 | NA |

Demonstrates the knowledge of proper identification and reporting of medical/health care errors. Protects the patient in the event of a medical/health care error resolution.

<table>
<thead>
<tr>
<th>Department Environment – Able to locate and/to demonstrate knowledge of:</th>
<th></th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hospital Directory</td>
<td>1 2 3</td>
<td>NA</td>
</tr>
<tr>
<td>• Physician Directory</td>
<td>1 2 3</td>
<td>NA</td>
</tr>
<tr>
<td>• Formulary</td>
<td>1 2 3</td>
<td>NA</td>
</tr>
<tr>
<td>• Fire Equipment:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Alarms</td>
<td>1 2 3</td>
<td>NA</td>
</tr>
<tr>
<td>o Fire extinguishers</td>
<td>1 2 3</td>
<td>NA</td>
</tr>
<tr>
<td>o Exit Doors</td>
<td>1 2 3</td>
<td>NA</td>
</tr>
<tr>
<td>• Medication refrigerators</td>
<td>1 2 3</td>
<td>NA</td>
</tr>
<tr>
<td>• Emergency (red) outlets</td>
<td>1 2 3</td>
<td>NA</td>
</tr>
<tr>
<td>• Charge system</td>
<td>1 2 3</td>
<td>NA</td>
</tr>
<tr>
<td>• Computer system</td>
<td>1 2 3</td>
<td>NA</td>
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</table>

**Department Organization - Able to describe roles and functions of:**

<table>
<thead>
<tr>
<th></th>
<th>1 2 3</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pharmacist</td>
<td>1 2 3</td>
<td>NA</td>
</tr>
<tr>
<td>• Pharmacy Technician</td>
<td>1 2 3</td>
<td>NA</td>
</tr>
<tr>
<td>• Administration</td>
<td>1 2 3</td>
<td>NA</td>
</tr>
<tr>
<td>Department Resources - Able to locate and demonstrate use of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Pharmacy Services Policy and Procedure Manual 1 2 3 NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Hospital Formulary 1 2 3 NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Drug Facts and Comparisons or AHFS 1 2 3 NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Physician DEA Information 1 2 3 NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Hospital Policy and Procedure Manual 1 2 3 NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Safety Manual 1 2 3 NA</td>
<td></td>
<td></td>
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<tr>
<td>• Fire/Emergency Management Manual 1 2 3 NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Material Safety Data Sheets (MSDS) 1 2 3 NA</td>
<td></td>
<td></td>
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<tr>
<td>• Infection Control Manual 1 2 3 NA</td>
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<tr>
<td>• Patient Control Manual 1 2 3 NA</td>
<td></td>
<td></td>
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<tr>
<td>• Specific Reference Materials/Community Resources 1 2 3 NA</td>
<td></td>
<td></td>
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<tr>
<td>• PI Documentation 1 2 3 NA</td>
<td></td>
<td></td>
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<tr>
<td>• Resources/Tools from PharmaSource (e.g. MUE criteria) 1 2 3 NA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Department Routines - Able to describe, locate and/or demonstrate knowledge of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Communication System:</td>
</tr>
<tr>
<td>• Bulletin boards 1 2 3 NA</td>
</tr>
<tr>
<td>• Logbooks 1 2 3 NA</td>
</tr>
<tr>
<td>• Meeting minutes 1 2 3 NA</td>
</tr>
<tr>
<td>• Memos 1 2 3 NA</td>
</tr>
<tr>
<td>• Reports 1 2 3 NA</td>
</tr>
<tr>
<td>• Cultural Factors:</td>
</tr>
<tr>
<td>Religion 1 2 3 NA</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>--------------------------------</td>
</tr>
<tr>
<td>Food preferences</td>
</tr>
<tr>
<td>Family/community relations</td>
</tr>
<tr>
<td>Healthcare attitudes/understanding</td>
</tr>
<tr>
<td>Trust/privacy needs</td>
</tr>
<tr>
<td>Socioeconomic environment</td>
</tr>
</tbody>
</table>

Total of Score #3s: ______
Total of Score #2s: ______
Total of Score #1s: ______

Identified Areas that Require Improvement:

Comments:

Name: ___________________________________________ Title: ____________________________

Date: ___________________________________________

Signature of Regional Director of Operations: ___________________________________________

Signature of Staff Member: _________________________________________________________
### ANNUAL SKILLS COMPETENCY PERFORMANCE EVALUATION
#### PHARMACY TECHNICIAN

1 = Cannot Perform Skills Independently  
2 = Requires Some Assistance to Perform Skills  
3 = Can Perform Skill Independently  
N/A = Not Applicable

- **What is the procedure for filling medication orders?**
  - 1 2 3 NA
- **What is the procedure for checking medication deliveries with the purchase orders?**
  - 1 2 3 NA
- **What is the procedure when the medication delivery does not match the purchase order?**
  - 1 2 3 NA
- **What is the procedure if you suspect a medication order dosage is incorrect?**
  - 1 2 3 NA
- **What happens to a patient's medication orders when he/she is transferred to a unit with a different level of care?**
  - 1 2 3 NA
- **What is the automatic stop date for antibiotics? Heparin?**
  - 1 2 3 NA
- **How does a physician renew a drug order?**
  - 1 2 3 NA
- **What is the acceptable temperature range for medication refrigerators? Freezers?**
  - 1 2 3 NA
- **What is the procedure when the temperature of the drug refrigerator varies outside the normal range?**
  - 1 2 3 NA
- **How and where are schedule II, III and IV drugs stored?**
  - 1 2 3 NA
- **What procedure is followed when Pharmacy Services is closed?**
  - 1 2 3 NA
- **What is the procedure for cleaning laminar flow hoods?**
  - 1 2 3 NA
- **Performs timely delivery of drugs and solutions to patient care units.**
  - 1 2 3 NA
- **Demonstrates knowledge of information required on purchased unit-of-use medication and intravenous admixture labels.**
  - 1 2 3 NA
- **Demonstrates a thorough knowledge of "do not use medical" abbreviations**
  - 1 2 3 NA
- **Demonstrates thorough knowledge of use and care of laminar flow hoods**
  - 1 2 3 NA
- **Demonstrates understanding of the preparation of sterile admixtures:**
  - Aseptic technique
  - 1 2 3 NA
- IV piggyback preparation
- Large volume parenterals (LVP) preparation
- Pharmaceutical calculation
- Quality control documentation

- Equipment - Able to demonstrate correct use and maintenance of:
  - Laminar flow hoods
  - Automated Dispensing Machines
  - Daily actions are documented in the daily log.

- Narcotics
- STAT orders

- Demonstrates competency in the knowledge of the delivery of patient care in an environment that optimizes patient safety and reduces the likelihood of medical/health care errors.
- Demonstrates the knowledge of proper identification and reporting of medical/health care errors. Protects the patient in the event of a medical/health care error and, as appropriate, assists in medical/health care error resolution.

- Age Specific Care:
  - Neonates
  - Pediatric and Adolescent
  - Geriatrics

- Department Environment - Able to locate and/or demonstrate knowledge of:
  - Hospital directory
  - Physician directory
  - Formulary
  - Fire Equipment:
    - Alarms
    - Extinguishers
    - Exit doors
  - Medication Refrigerators/Freezers
  - Emergency (red) outlets

Original Effective Date: 1/24/2014
Reviewed/Revised: 6/2014
• Charge system 1 2 3 NA
• Pharmacy Computer System 1 2 3 NA
• Drug Wholesaler Computer System 1 2 3 NA

• Department Organization - Able to describe roles and functions of:
  • Director of Pharmacy Services 1 2 3 NA
  • Pharmacy Technician 1 2 3 NA
  • Patient Care Unit RN 1 2 3 NA
  • Other Departments 1 2 3 NA

• Department Resources - Locates and demonstrates use of:
  • Pharmacy Services Policy and Procedure Manual 1 2 3 NA
  • Hospital Formulary 1 2 3 NA
  • Hospital Policy and Procedure Manual 1 2 3 NA
  • Fire/Emergency Preparedness Manual 1 2 3 NA
  • Infection Control Manual 1 2 3 NA
  • Material Safety Data Sheets (MSDS) Manual 1 2 3 NA
  • Patient Teaching Material 1 2 3 NA
  • Drug Facts and Comparisons or AHFS 1 2 3 NA
  • Pharmacy Specific Reference Materials 1 2 3 NA
  • PI Documentation 1 2 3 NA
  • PharmaSource Resources/Tools 1 2 3 NA
  • Other 1 2 3 NA

• Department Routines - Able to describe, locate and/or demonstrate knowledge of
  • Communication System: 1 2 3 NA
    • Bulletin boards 1 2 3 NA
    • Logbooks 1 2 3 NA
    • Meeting minutes 1 2 3 NA
    • Memos 1 2 3 NA

• Ordering supplies 1 2 3 NA
<table>
<thead>
<tr>
<th>Cultural Factors</th>
<th>1</th>
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<td>1</td>
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<td>3</td>
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</tr>
<tr>
<td>Socioeconomic environment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>NA</td>
</tr>
</tbody>
</table>

Total of Score #3s: __________
Total of Score #2s: __________
Total of Score #1s: __________

Identified Areas that Require Improvement:

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Comments:

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Name: __________________________ Title: __________________________

Date: __________________________

Signature of Regional Director of Operations: __________________________

Signature of Staff Member: __________________________
EMPLOYEE ORIENTATION/COMPETENCY/EVALUATION

Policy:

Pharmacy Services will be in complete compliance with the hospital policy on annual competencies and performance evaluations. Both regular employees and contract employees shall be subject to the same standards. Evaluations will include an initial assessment of credentials, skills and competencies and an annual evaluation to ensure continued competency using the Competency/Skills Assessment Checklist and the orientation Checklist. The criteria based job description is the basis for performance evaluation. Documentation will be maintained in each employee’s personnel file. When appropriate, age specific criteria will be included.

Procedure:

• Upon hire, the new employee will attend the hospital's orientation for new employees. The employee will receive departmental orientation according to current standards. These will be recorded and kept in the employee's personnel file.

• The competency of each new employee will be evaluated using standard tests. Competency validation will be completed by the Director of Pharmacy Services and will be designed to reflect current practice at the hospital. Results will be recorded. If an employee does not successfully test in a particular area or skill, a plan of correction will be developed in collaboration with the employee’s supervisor. A contingency plan will be also implemented including a designated proctor to assist the candidate through the process.

• Each year the employee will participate in the hospital's annual review process.

• Annually the employee's clinical competencies and job skills will be evaluated. Results will be recorded and added to the file.
PHARMACIST ORIENTATION CHECKLIST

☐ Tour of Hospital/Pharmacy
☐ Time Sheet/Reporting
  ▪ Annual Review/Training
    ☐ Hospital
    ☑ Pharmacy
☐ Competency Exams
☐ Pharmacy Policy and Procedures
  o Hard copy/electronic
    IV Guidelines
    Special Compounding
☐ Shift Responsibilities
  Supervision of Technicians/Interns
  Drug Order Verification
    • IV Batch
  • Therapeutic Drug Monitoring Protocols
    Clinical Laboratory Values
    Drug Concentration Blood Draw Scheduling
    Anticoagulation
    Medication/Drug Use Evaluation
☐ Pharmacy Protocols
  • Renal Monitoring and Dosing
    o Anticoagulation
    • Aminoglycosides
      Vancomycin
    o Therapeutic Interchange/Generic Substitution
      Other
☑ Code Blue Responsibilities
☐ Medical Services/Teams (e.g., Radiology, Surgery
☑ Computer Software Programs
  • Medics pharmacy computer
  • Clinical Pharmacology
  • Omnicare or Hospital email access
  • Internet-based PharmaSource files "Document Depot"
  • Microsoft Word, Microsoft Excel
- Narcotics
- Eye Medications
- Discharge Prescriptions/ER "Take Home" Meds
- Ordering Drugs
- Borrowing Medications

Pharmacy:

____________________________________________________________________________________________
____________________________________________________________________________________________
____________________________________________________________________________________________

Pharmacist: ________________________________________________ Date: _________________

Training Supervisor: ________________________________ Date: _________________
NURSING ORIENTATION TO MEDICATION USE PROCESS

Policy: Pharmacy services will participate in the new-hire and annual orientation/training of all nurses to the medication use process at this hospital. A pharmacist will discuss the medication use process, forms and procedures.

Procedure:

The following topics will be covered:

- Pharmacy Services hours of operation
- Location of the Pharmacy
- MAR procedures
- Unit dose distribution procedures
- Pharmacist order verification process
- Intravenous admixture service
- Missing doses procedures
- Floor stock procedures/requisitions
- Controlled substances, including distribution and documentation
- Pharmacy communication methods
- Adverse drug reaction reporting
- Medication error reporting
- Medications contributing to fall risks
- Pharmacy's clinical activities and drug information
- Other services provided
- Tour of the Pharmacy

The nurse will be introduced to all medication-use forms and documentation procedures (includes overview of EmPower medication documentation). The use and timing of medication use forms will be discussed.

The nurse will be introduced to the communication forms and techniques used to coordinate the medication use process between Nursing and Pharmacy Services, including the communication memos and the automatic stop notification. General principles of drug distribution will be discussed.

The nurse will be introduced to drug reference materials used at this hospital, including the drug formulary and the intravenous drug guidelines.

The nurse will be introduced to the standard intravenous drug concentrations and intravenous admixture procedures. Basic principles of intravenous admixture will be reviewed.

All Nursing Supervisors, who are authorized to obtain necessary medications from approved sources after pharmacy hours (i.e. pharmacy, night medication cabinet/locker, automated dispensing equipment), must have additional annual training:

- In service about the After-Hours Policy and Procedures and restricted access to the pharmacy by authorized personnel only.
- Thorough orientation to the pharmacy and drug locations.
- Must pass annual competency for after hours nursing access.
Policy:

To ensure complete and accurate records of medication administration, this hospital will maintain a patient electronic medication administration record (eMAR) for inpatients in the electronic health record, EmPower.

See nursing policy on Medication Administration Record use and specific procedures.

Procedures:

An electronic medication administration record (eMAR) will be used to notify the nurse of the medications including scheduled, PRN and parenteral that need to be administered to patients by all routes.

Every inpatient will have an eMAR, whether drugs are ordered or not.

Medication administration will be recorded in the intake section of EmPower. All necessary documentation pertaining to therapy management and vitals will be recorded in the comments section of each medication and will be the responsibility of the nurse.
PHYSICIAN SIGNATURES & DEA NUMBERS

Policy:
For purposes of authentication and verification, Pharmacy Services will maintain a file of written or facsimile signatures and the current DEA registration numbers of all prescribers.

Procedure:
The Hospital Administration will obtain the signature and DEA registration number of prescribers at the time of application for clinical privileges. The data will be forwarded to Pharmacy Services for reference and kept on file.

The Hospital Administration will update Pharmacy Services as to the status of clinical privilege of all prescribers. Pharmacy Services will update DEA records accordingly.
INTRAVENOUS DRUG ADMINISTRATION

Policy:

The Pharmacy and Therapeutics Committee will maintain guidelines for the safe administration of intravenous drugs. These guidelines will be reviewed by pharmacy annually and as needed and approved by the Medical staff. They will be available in hard copy at all patient care units and in the printed formulary.

Procedure:

The Pharmacy and Therapeutics Committee will approve guidelines for administration of intravenous drugs. Information provided in the guidelines include, but are not limited to:

- Generic name
- Route/technique of administration (i.e., IV push, IV piggyback, IV infusion)
- Common therapeutic uses of the medication
- Standard concentration and admixing information.
- Usual standard initial doses and recommended titration and tapering information
- Administration restrictions/limitations (i.e., who can administer, if restricted to certain locations, contraindications to use)
- Special considerations (i.e., restrictions, comments, maximum dosage, in-line filter or special IV tubing requirements)

Drugs included in the guidelines may include drugs that are not on this hospital's formulary.

Drugs not included in the guidelines may be administered according to manufacturer's information, if the drug is determined to be safe and appropriate for the patient, after discussions with the physician or Pharmacist.

Standard reference books, Pharmacy and Therapeutic Committee-approved online drug information sources or other materials with IV administration information will be made available in all patient care units, Pharmacy Services, and in selected ancillary units.
INTRAVENOUS DRUG GUIDELINES

Purpose:
The following guidelines provide recommendations concerning methods, rate and general information concerning intravenous drug administration. It is recognized that at times there will be exceptions to these recommendations. When an IV drug order conflicts with the IV guidelines, the order must be discussed with a Pharmacist prior to administering the drug.

Policy:
The IV drugs have been classified according to IV method of administration, infusion pump requirements, personnel and units where they may be administered:

Method:  
P    IV Push
IVPB  IV Piggyback: small volume: <250 ml
B     Bag, Larger volume: >250 ml
I     Infusion pump required

Where:  
CC: Critical Care Units (Emergency room-ER), OR
No listing means there are no restrictions to location.

Who:  
RNs ACLS: Refers to RNs with current ACLS certification who have completed initial and annual ACLS code blue skill validation.
      MD: Physician must give or be physically present at the bedside.

Comments:  
Any specific restrictions regarding dosage, administrations, carrier solutions or drug specific monitoring required.

In an emergency when a skill-validated ACLS Nurse or a physician is present, any drug may be given throughout the hospital in accordance with the IV Guidelines.

Additionally, updated references will be available to provide further information concerning IV administration of drugs. For example, The Nurse's Drug Handbook.
### IV DRUG GUIDELINES LIST

<table>
<thead>
<tr>
<th>Drug</th>
<th>Method</th>
<th>Where</th>
<th>Who</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETAZOLAMIDE</td>
<td>IVP, IVPB, B</td>
<td></td>
<td></td>
<td>DIURETIC: Concentration not to exceed 100 mg/ml, Infuse no faster than 250 mg/min.</td>
</tr>
<tr>
<td>ACYCLOVIR</td>
<td>IVP, I</td>
<td></td>
<td></td>
<td>ANTIVIRAL: Max concentration 7mg/min. Infuse over minimum of 1 hour. Too high concentration or too rapid infusion will cause phlebitis. Do not refrigerate. Patient must be hydrated during acyclovir therapy.</td>
</tr>
<tr>
<td>ADENOSINE</td>
<td>IVP</td>
<td>CC</td>
<td>RNs ACLS</td>
<td>ANTIARRHYTHMIC: 6mg by rapid IVP over 1-2 seconds, followed by rapid NS flush. May repeat with 12mg dose in 1-2 minutes if first dose ineffective. Clearance from plasma less than 30 seconds. See Protocol.</td>
</tr>
<tr>
<td>ALBUMIN</td>
<td>IVPB, B</td>
<td></td>
<td></td>
<td>BLOOD DERIVATIVE: Do not add medication to bottle. Rate of infusion dependent on clinical response and/or blood pressure. Watch for s/s of fluid overload.</td>
</tr>
<tr>
<td>ALTEPLASE (TPA)</td>
<td>P, IVPB</td>
<td>CC</td>
<td></td>
<td>THROMBOLYTIC AGENT: Administration dependent upon method used. Total dose based upon patient's weight and should not exceed 100 mg. Must be in monitored unit. Monitor vital signs and for bleeding.</td>
</tr>
<tr>
<td>AMINOCAPROIC ACID</td>
<td>IVPB, B, I</td>
<td></td>
<td></td>
<td>ANTIHEMORRHAGIC: Initial dose 4 to 5 gms in 250 ml over 1 hour and follow by 1 to 1.25 gm/hr. Monitor for hypotension, bradycardia and arrhythmias; symptoms indicating rate too fast. Do not give undiluted solution.</td>
</tr>
<tr>
<td>AMIODARONE</td>
<td>IVPB, P</td>
<td>CC</td>
<td>RNs ACLS</td>
<td>ANTIARRHYTHMIC: Use an infusion pump via central line or peripheral line. For pulseless VF or VT: IV push 300 mg in 20 to 30 ml NS or D5W. May give supplemental 150 mg if VF or VT recurs. Follow with IV infusion. Stable VT or SVT: Bolus)150mg in 100m1 NS or D5W over 10 minutes. Maintenance infusion:) 1 mg/min x 6hours followed by 0.5mg/min x 18 hours. To mix450mg in D5W 250m1 (glass bottle or Excel bag only) to give a conc. of 1.8mg/ml.</td>
</tr>
<tr>
<td>AMPHOTERICIN B</td>
<td>B, I</td>
<td></td>
<td></td>
<td>ANTIFUNGAL: Dilute to at least 0.1 mg/ml in D5W only. Infuse over 2 to 6 hours. Do not use NS. Pharmacy to mix. Watch for fever and chills. Premedicate as ordered.</td>
</tr>
</tbody>
</table>

Original Effective Date: 1/24/2014
Reviewed/Revised: 6/2014
<table>
<thead>
<tr>
<th>Drug</th>
<th>Method</th>
<th>Where</th>
<th>Who</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMPICILLIN</td>
<td>IVPB</td>
<td></td>
<td></td>
<td>ANTIBIOTIC: IVPB infuse over 30 minutes. IVPB solution NS only. Less than 2 gm dilute in 50 ml NS. 2 gm or more dilute in 100 ml NS.</td>
</tr>
<tr>
<td>AMPICILLIN/SULBACTAM</td>
<td>IVPB</td>
<td></td>
<td></td>
<td>ANTIBIOTIC: Usual dose 1.5 to 3.0 gm IVPB in 50 to 100 ml NS over 30 minutes.</td>
</tr>
<tr>
<td>ASCORBIC ACID</td>
<td>P, IVPB, B</td>
<td></td>
<td></td>
<td>VITAMIN: May be given by slow IVP over 2 to 4 minutes. Infuse 100 mg/min maximum. Check for compatibility issues with other drugs.</td>
</tr>
<tr>
<td>ATROPINE</td>
<td>P</td>
<td>CC</td>
<td></td>
<td>ANTICHOLINERGIC: Given in CC units unless an emergency exists and MD or ACLS RN is present. Dose: 0.5 to 1 mg every 3-5 in. For tx of bradyarrhythmia: See Protocol.</td>
</tr>
<tr>
<td>BENZTROPINE</td>
<td>P</td>
<td></td>
<td></td>
<td>ANTICHOLINERGIC: Used for Parkinsonism and drug-induced extrapyramidal effects. No significant difference in onset with IVP or IM. Dose: 1 to 2 mg. (1 mg over 1 min)</td>
</tr>
<tr>
<td>CAFFEINE NA BENZOATE</td>
<td>P</td>
<td>CC</td>
<td></td>
<td>CNS STIMULANT: MD must give except in Critical Care Units.</td>
</tr>
<tr>
<td>CALCITRIOL</td>
<td>P</td>
<td></td>
<td></td>
<td>VITAMIN-D3: Management of hypocalcemia In patients undergoing renal dialysis. Dose given as a bolus through the dialysis catheter at the end of hemodialysis by the Dialysis RN.</td>
</tr>
<tr>
<td>CALCIUM CHLORIDE</td>
<td>P, IVPB, B</td>
<td>RNs ACLS</td>
<td></td>
<td>ELECTROLYTE: Only ACLS skill validated RN can give push in Code Blue or emergency Situation. IVP not to exceed 100 mg/min. Cardiac effects if too rapid injection. IV infusion 1 gm/100 ml over 1 hour. Interaction with bicarbonate.</td>
</tr>
<tr>
<td>CALCIUM GLUCONATE</td>
<td>P, IVPB, B</td>
<td></td>
<td></td>
<td>ELECTROLYTE: IVP rate not to exceed 100 Mg/min. Cardiac effects if too rapid injection. Interaction with bicarbonate.</td>
</tr>
<tr>
<td>CEFAZOLIN</td>
<td>P, IVPB, B</td>
<td></td>
<td></td>
<td>ANTIBIOTIC: IVPB infuse over 30 minutes. 1 or 2 gms in 50 ml NS or D$_3$W. Caution if patient is penicillin allergic.</td>
</tr>
<tr>
<td>CEFOTAXIME</td>
<td>P, IVPB, B</td>
<td></td>
<td></td>
<td>ANTIBIOTIC: IVPB infuse over 30 minutes. Caution if patient is penicillin allergic.</td>
</tr>
<tr>
<td>CEFOTAXIN</td>
<td>P, IVPB, B</td>
<td></td>
<td></td>
<td>ANTIBIOTIC: IVPB infuse over 30 minutes. Caution if patient is penicillin allergic.</td>
</tr>
<tr>
<td>CEFTAZIDIME</td>
<td>P, IVPB, B</td>
<td></td>
<td></td>
<td>ANTIBIOTIC: IVPB infuse over 30 minutes. Caution if patient is penicillin allergic.</td>
</tr>
<tr>
<td>Drug</td>
<td>Method</td>
<td>Where</td>
<td>Who</td>
<td>Comments</td>
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</tr>
<tr>
<td>CEFTRIAXONE</td>
<td>P, IVPB, B</td>
<td></td>
<td></td>
<td><strong>ANTIBIOTIC:</strong> IVPB infuse over 30 minutes CAUTIONS: Not to be administered within 48 hours of any calcium-containing IV's (TPN's lactated Ringer infusions, CaCl, Calcium gluconate) Caution if patient is penicillin allergic.</td>
</tr>
<tr>
<td>CHLORPROMAZINE</td>
<td>P, IVPB</td>
<td></td>
<td></td>
<td><strong>TRANQUILIZER:</strong> For IVP, dilute to 1 mg/ml with NS and inject no faster than 1 mg/min. Watch for hypotension. give IVPB in med/surg areas and rate of 1 mg/min.</td>
</tr>
<tr>
<td>CIMETIDINE</td>
<td>P, IVPB, B</td>
<td></td>
<td></td>
<td><strong>H2-ANTAGONIST:</strong> For IVP, 300 mg in 20 ml NS over 2-3 minutes. For IVPB, dilute in at least 50 ml and infuse over 15-30 minutes.</td>
</tr>
<tr>
<td>CIPROFLOXACIN</td>
<td>IVPB</td>
<td></td>
<td></td>
<td><strong>ANTIBIOTIC:</strong> Infuse over 60 minutes.</td>
</tr>
<tr>
<td>CLINDAMYCIN</td>
<td>IVPB</td>
<td></td>
<td></td>
<td><strong>ANTIBIOTIC:</strong> Maximum concentration 18 mg/ml. Infuse no faster than 30 mg/min.</td>
</tr>
<tr>
<td>COLCHICINE</td>
<td>P</td>
<td></td>
<td></td>
<td><strong>ANTI-GOUT:</strong> Dilute in 10 to 20 ml of Normal Saline (non-bacterostatic) and infuse over 25 minutes, preferably into the tubing of a free flowing compatible IV. Avoid extravasation. Too rapid infusion can cause arrhythmias.</td>
</tr>
<tr>
<td>CORTICOTROPIN</td>
<td>B</td>
<td></td>
<td></td>
<td><strong>ADRENAL STIMULANT:</strong> Dilute in 500 ml DcW or NS infuse over 8 hours. Monitor continuously for 30 minutes, then, frequently throughout administration.</td>
</tr>
<tr>
<td>COSYNTROPIN</td>
<td>P, B</td>
<td></td>
<td></td>
<td><strong>ADRENAL DIAGNOSTIC AGENT:</strong> IVP dose to be given slowly over 2 minutes. For IV infusion, Dilute 250 mcg in 250-500 ml DcW or NS in a glass bottle. Infuse slowly over 2 to 6 hours.</td>
</tr>
<tr>
<td>DANTROLENE</td>
<td>P</td>
<td>CC</td>
<td></td>
<td><strong>SKELETAL MUSCLE RELAXANT FOR MALIGNANT HYPERThERMIA:</strong> 1 mg/kg as initial dose. Repeat as necessary until symptoms subside or 10 mg/kg dose is reached. Dilute each 20 mg in 60 ml sterile water and give by rapid IV push. Monitor VS, ECG. Located in OR hyperthermia cart.</td>
</tr>
<tr>
<td>DEFEROXAMINE</td>
<td>B</td>
<td></td>
<td></td>
<td><strong>CHELATING AGENT, ANTIDOTE:</strong> Slow IV infusion, should not exceed rate of 15 mg/kg/hour. Usual concentration is 2 gm in 1000 ml D5W or NS.</td>
</tr>
<tr>
<td>DESMOPRESSIN DDAVP</td>
<td>P, IVPB</td>
<td></td>
<td></td>
<td><strong>ANTIDIURETIC, ANTIHEMORRHAGIC AGENT:</strong> Dose: 1 to 4 mcg IV push for Diabetes Insipidus; 0.2 to 0.4 mcg/kg IVPB in 50 ml NS for Hemophilia A and Von Willebrand's disease. Monitor VS during infusion.</td>
</tr>
<tr>
<td>Drug</td>
<td>Method</td>
<td>Where</td>
<td>Who</td>
<td>Comments</td>
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</tr>
<tr>
<td>DEXAMETHASONE</td>
<td>P, IVPB</td>
<td>1</td>
<td></td>
<td>CORTICOSTEROID: IVP usually for doses less than 20 mg. May give IVPB in D5W or NS.</td>
</tr>
<tr>
<td>DEXTROSE 50%</td>
<td>P</td>
<td></td>
<td></td>
<td>HYPERGLYCEMIC AGENT: Give slow IVP, 50 ml over 3 minutes.</td>
</tr>
<tr>
<td>DIAZEPAM</td>
<td>P</td>
<td></td>
<td></td>
<td>TRANQUILIZER/BENZODIAZEPINE: Administer undiluted. Inject slowly directly or through tubing as close as possible to large vein. Do not mix with other drugs. Maximum rate 5 mg/min. Flush with NS. Monitor for respiratory depression, hypotension.</td>
</tr>
<tr>
<td>DIGOXIN</td>
<td>P, IVPB</td>
<td></td>
<td></td>
<td>DIGITALIS PREPARATION: Usual loading dose: 0.5 to 1 mg in divided doses. May give undiluted, or may dilute each ml with 4 ml D5W, Sterile water or NS. For IVP, give dose over at least 5 minutes. If heart rate is less than 60 bpm, contact MD.</td>
</tr>
<tr>
<td>DIGOXIN IMMUNE FAB (DIGIBIND)</td>
<td>IVPB</td>
<td>CC</td>
<td></td>
<td>DIGOXIN ANTIDOTE: Dose is based upon body load of digoxin. Each 40mg is diluted with 4 ml of sterile water. Mix gently. May be given at this concentration or further dilute with NS.Use 0.2 micron filter. Be prepared to treat anaphylaxis.</td>
</tr>
<tr>
<td>DIHYDROERGOTAMINE</td>
<td>P</td>
<td></td>
<td></td>
<td>ANTI-MIGRAINE: Dose is 1mg. May repeat in 1 hr. No more than 2mg may be given IV in 24 hours. Infuse over 1 min. Monitor vital signs.</td>
</tr>
<tr>
<td>DILTIAZEM</td>
<td>IVP, B, I</td>
<td>CC</td>
<td></td>
<td>CALCIUM CHANNEL BLOCKER - CARDIAC DRUG: Infusion pump required, continuous EKG monitoring, IVP over 2 min. Max dose 15 mg/hr, Check BP q 1 hour for infusions, Check BP q 5-15 min. after IVP or change in infusion rate.</td>
</tr>
<tr>
<td>DIPHENHYDRAMINE</td>
<td>P</td>
<td></td>
<td></td>
<td>ANTIHISTAMINE: Usual dose 10 to 50 mg. May be given undiluted at a rate of 25 mg/min. Extend injection time in non-emergency situations, Monitor vital signs.</td>
</tr>
<tr>
<td>DOBUTAMINE</td>
<td>B, I</td>
<td>CC, Step Down</td>
<td>RNs ACLS</td>
<td>INOTROPIC AGENT: Usual dose 2.5 to 20mcg/kg/min. Titrate dose to desired effect. Incompatible with alkaline solutions. Monitor vital signs. Step Down: low dose, titrate down only.</td>
</tr>
<tr>
<td>DOPAMINE</td>
<td>B, I</td>
<td>CC, Step Down</td>
<td>RNs ACLS</td>
<td>INOTROPIC AGENT/CASOPRESSOR: Dose is 2.5 to 20 mcg/kg/min. Titrate to response. Standard conc. 400 mg/250 ml DOA/ (1600 mcg/ml). Avoid extravasation. Monitor vital signs. Incompatible with alkaline solutions, step Down: Renal dose, titrate down only.</td>
</tr>
<tr>
<td>Drug</td>
<td>Method</td>
<td>Where</td>
<td>Who</td>
<td>Comments</td>
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</tr>
<tr>
<td>DOXYCYCLINE</td>
<td>IVPB, B</td>
<td>ANTIBACTERIAL: Concentration not to exceed 1 mg/ml. Minimum infusion time is 1 to 4 hours. Avoid extravasation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DROPERIDOL</td>
<td>P, B</td>
<td>TRANQUILIZER/Antiemetic: Dosage for antiemetic usually, 0.625 to 1.25 mg. May be given undiluted slowly. Must have EKG before and during administration - watch for ST prolongation!, monitor for hypotension, respiratory depression, extrapyramidal symptoms and sedation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENALAPRILAT</td>
<td>P, IVPB</td>
<td>ANTIHYPERTENSIVE: Usual dose 1.25 mg every 6 hours. May be given undiluted through free-flowing infusion of NS or D5W/. Give IVP slowly over 5 minutes. May dilute in 50 ml and give IVPB. Monitor vital signs closely.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPHEDRINE</td>
<td>P</td>
<td>CC</td>
<td>BRONCHODILATOR/VASOPRESSOR: May be given undiluted, 5 to 25 mg usual IVP dose. Give slowly, maximum rate, 10 mg min. Monitor vital signs.</td>
<td></td>
</tr>
<tr>
<td>EPINEPHRINE</td>
<td>P, B, I</td>
<td>CC</td>
<td>ADRENERGIC STIMULANT: Cardiac arrest 1 mg or 1:10,000 solution q 3 to 5 min. Standard Concentration for IV drip is 4 mg in 250 D5W (16 mcg/ml). Dose 1 to 10 mcg/min. Avoid extravasation. See Protocol.</td>
<td></td>
</tr>
<tr>
<td>EPOETIN ALPHA</td>
<td>P</td>
<td>STIMULATES ERYTHROPOIESIS: In anemic patients, 50 to 100 units/kg 3 times a week. Dosage range varies. Give dose IVP slowly over 1 minute.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERYTHROMYCIN</td>
<td>IVPB, B</td>
<td>ANTIBACTERIAL: Reconstitute each 500 mg with 10 ml of sterile water without preservatives. Further dilute in 100 to 250ml of NS. Infuse over 1 hour minimum. Inflammation or thrombophlebitis common at infusion site.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESTROGENS, CONJ.</td>
<td>P</td>
<td>ABNORMAL UTERINE BLEEDING: 25mg, may repeat in 6-12 hours. UREMIC BLEEDING (unlabelled use) 0.6mg/kg daily x 5 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHACRYNIC ACID</td>
<td>IVPB</td>
<td>DIURETIC: Usual dose: 0.5 to 1 gm/kg. Add dose to 50 ml NS and infuse over 30 minutes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FAMOTIDINE</td>
<td>P, IVPB</td>
<td>H2-ANTAGONIST: Usual dose 20 mg every 12 hours. For direct IVP, each 20 mg must be diluted with 5 to 10 ml of NS and give over at least 2 minutes. For IVPB, each 20 mg diluted in 50 ml D5W or NS and infuse over 15 to 30 min.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drug</td>
<td>Method</td>
<td>Where</td>
<td>Who</td>
<td>Comments</td>
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</tr>
<tr>
<td>FENTANYL</td>
<td>B, P</td>
<td>CC</td>
<td>NARCOTIC ANALGESIC: Dosage determined by titration and parameters established by MD. Monitor vital signs Respiratory depressant actions outlast analgesic effects. See IV Analgesia P&amp;P,</td>
<td></td>
</tr>
<tr>
<td>FLUCONAZOLE</td>
<td>IVPB</td>
<td></td>
<td></td>
<td>ANTIFUNGAL: Usual dilution is 2 mg/ml. Do not exceed 200 mg/hr rate.</td>
</tr>
<tr>
<td>FLUMAZENIL</td>
<td>P</td>
<td></td>
<td></td>
<td>BENZODIAZEPINE ANTAGONIST: Secure patient airway first. Usual dose 0.2 mg (2m1) over 30 seconds. May repeat at 1 minute intervals until desired effect or 1 mg total dose given. May give undiluted. May cause</td>
</tr>
<tr>
<td>FOSPHENYTOIN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FUROSEMIDE</td>
<td>P, IVPB</td>
<td></td>
<td></td>
<td>DIURETIC: May be given undiluted. Each 40 mg or fraction thereof should be given over 1 to 2 minutes. Maximum rate of infusion of High-dose therapy is 4 mg/min.</td>
</tr>
<tr>
<td>GENTAMICIN</td>
<td>IVPB</td>
<td></td>
<td></td>
<td>ANTIBACTERIAL/AMINOGLYCOSIDE: Infuse dose over 30 minutes. May be diluted in D5W or NS.</td>
</tr>
<tr>
<td>GLUCAGON</td>
<td>P</td>
<td></td>
<td></td>
<td>ANTIHYPOGLYCEMIC: Dilute 1 unit (1 mg) with 1 ml of diluent provided by manufacturer Incompatible with solutions containing NaCl, K, or CaCl. Rate1 unit (1 mg) over 1 minute.</td>
</tr>
<tr>
<td>GLYCOPHYRROLATED</td>
<td>P</td>
<td></td>
<td></td>
<td>ANTICHOLINERGIC: Usual dose 0.1 to 0.2 mg depending upon indication. Rate: 0.2 mg or fraction thereof over 1 to 2 minutes. Use IV only when immediate drug effect is essential.</td>
</tr>
<tr>
<td>HALOPERIDOL</td>
<td>P</td>
<td>CC, Step Down</td>
<td>RNs ACLS</td>
<td>ANTIPSYCHOTIC/SEDATIVE/TRANQUILIZER/ANTIEMETIC: Use only haloperidol lactate for IV use. May be given undiluted. Enhances narcotics and all CNS depressants. Monitor vital sighs and consider EKG for high dose for ST prolongation/syndrome. Rate: 5mg/minute.</td>
</tr>
<tr>
<td>HEPARIN</td>
<td>B, P, IVPB, I</td>
<td></td>
<td></td>
<td>ANTICOAGULANT: Standard solution 100 units per ml. Dose to be prescribed in &quot;units per hour&quot;. Monitor patient for signs of bleeding. Assure accuracy with drip rate.</td>
</tr>
<tr>
<td>HYDROCORTISONE SODIUM SUCCINATE</td>
<td>P, IVPB, B</td>
<td></td>
<td>CORTICOSTEROID: May be given without mixing or dilution. Rate: 500 mg or fraction there of over 1 minute.</td>
<td></td>
</tr>
<tr>
<td>Drug</td>
<td>Method</td>
<td>Where</td>
<td>Who</td>
<td>Comments</td>
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</tr>
<tr>
<td>HYDROMORPHONE</td>
<td>P, IVPB, B, I</td>
<td></td>
<td></td>
<td>NARCOTIC ANALGESIC: IVP Rate 2 mg or fraction thereof diluted in 5 ml sterile water or NS over 2 to 5 minutes. Monitor vital signs, especially respirations. Must use IV pump for IV infusions.</td>
</tr>
<tr>
<td>IMIPENEM-CLASTATIN</td>
<td>IVPC</td>
<td></td>
<td></td>
<td>ANTIINFECTIONAL: Each 500 mg must be diluted in 250 ml D5W or NS rate: Each 500 mg dose infused over 30 minutes.</td>
</tr>
<tr>
<td>IMMUNE GLOBULIN (IGIV)</td>
<td>IVPB, B, I</td>
<td></td>
<td></td>
<td>IMMUNIZING AGENT: Dilution depends upon specific product. Do not mix with any other drugs. Monitor vital signs closely during infusion, anaphylaxis can occur at any time, Infuse dose over hrs. Pharmacy mix only</td>
</tr>
<tr>
<td>INSULIN</td>
<td>P, IVPB, B, I</td>
<td></td>
<td></td>
<td>ANTIHYPERGLYCEMIC: Standard concentration is 100 units in 100 ml NS. When small amounts of insulin (i.e., 5-10 units) has been added to IV bottle to nullify hyperglycemic effect of dextrose, IV pump not required. Monitor blood glucose.</td>
</tr>
<tr>
<td>IRON Sucrose</td>
<td>IVPB, B, I</td>
<td></td>
<td></td>
<td>IRON REPLACEMENT: Maximum daily dose is 300mg in NS 100ml. Monitor vital signs</td>
</tr>
<tr>
<td>ISOPROTERENOL</td>
<td>IVPB, B, I</td>
<td>CC, Step Down</td>
<td>RNs ACLS</td>
<td>CHRONOTROPIC/INOTROPIC AGENT: Standard concentration 2 mg/250 ml D5W (8mcg/ml). Dose is titrated to desired effect. Monitor vital signs closely. Step Down: Low dose, titrate down only.</td>
</tr>
<tr>
<td>KETAMINE</td>
<td>B, I</td>
<td>CC</td>
<td></td>
<td>NON-BARBITURATE ANESTHETIC: For continuous IV infusion, 500 mg/250 ml DsW or NS. May be mixed with Fentanyl and/or Midazolam. Monitor vital signs. May cause respiratory depression See IV Analgesia P&amp;P.</td>
</tr>
<tr>
<td>KETOROLAC</td>
<td>P</td>
<td></td>
<td></td>
<td>NONSTEROIDAL ANALGESIC: Dosage 15 to 30 mg IVP every 6 hours. Do not give any combination IV/PO or IM longer than 5 days. Dose adjustment required for patients &lt; 50 kg, over 65 years of age, or reduced renal function. Rate: Give dose IVP over 1-2 min.</td>
</tr>
<tr>
<td>Labetalol</td>
<td>P</td>
<td>CC, Step Down</td>
<td>RNs ACLS</td>
<td>ALPHA/BETA-ADRENERGIC BLOCKER: Dosage: 20 mg IVP initially. May repeat with 40 to 80 mg at 10 min intervals until desired BP. May give undiluted. IVP: 20 mg or fraction over at least 2 min. Monitor vital signs, especially BP. Max of 300mg.</td>
</tr>
<tr>
<td>LEVOTHYROIDINE</td>
<td>P</td>
<td></td>
<td></td>
<td>THYROID HORMONE: Dilute each 100 mcg in at least 1 ml of NS without preservatives. Rate: 100 mcg or fraction thereof over 1minute. Monitor vital signs.</td>
</tr>
<tr>
<td>Drug</td>
<td>Method</td>
<td>Where</td>
<td>Who</td>
<td>Comments</td>
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</tr>
<tr>
<td>LIDOCAINE</td>
<td>P, IVPB, B, I</td>
<td>CC, Step Down</td>
<td>RNs ACLS</td>
<td>ANTIARRHYTHMIC: Standard conc.: 2000 mg/500 ml D5W (4 mg/ml). Rate: IVP 25 to 50 mg over 1 minute. Too-rapid injection may cause seizures. IV drip: 1 to 4 mg/min. See Protocol.</td>
</tr>
<tr>
<td>LORAZEPAM</td>
<td>P, B, I</td>
<td></td>
<td></td>
<td>TRANQUILIZER/BENZODIAZEPINE: IVP: dilute with equal volume of sterile water, D5W, or NS. IV drip: Dilute to concentration of 0.1 mg/ml or 0.2 mg/ml. Solution stable room temperature 12 hours in plastic, 24 hours in glass.</td>
</tr>
<tr>
<td>MAGNESIUM SULFATE</td>
<td>IVPB</td>
<td></td>
<td></td>
<td>ELECTROLYTE: Premixed in 1 Gram and 2gm/100ml1 IVPB's. Magnesium is premixed in 20Gms/500ml.</td>
</tr>
<tr>
<td>MANNITOL</td>
<td>P, IVPB, B</td>
<td></td>
<td></td>
<td>OSMOTIC DIURETIC: If push, not faster than 12.5 gm/50 ml over 5 minutes. Infusion rate not to exceed 1.5 gm/kg over 30-60 minutes. Use filter needle to withdraw from vial.</td>
</tr>
<tr>
<td>MEPERIDINE</td>
<td>P, B, I</td>
<td></td>
<td></td>
<td>NARCOTIC ANALGESIC: IVP: Dose should be diluted in at least 5 ml of sterile water or NS and infused over 4 to 5 minutes. Monitor vital signs. Individual dose varies between patients. Use not recommended in renally impaired patients.</td>
</tr>
<tr>
<td>METHOCARBAMOL</td>
<td>P, IVPB, B</td>
<td></td>
<td></td>
<td>MUSCLE RELAXANT: May be given undiluted or a single dose may be given as IV infusion diluted in no more than 250 ml NS or D5W.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>Rate: 300 mg or fraction thereof over at least 1</td>
</tr>
<tr>
<td>METHYLENE BLUE</td>
<td>P</td>
<td></td>
<td></td>
<td>CYANIDE ANTIDOTE: Usual dose 1 to 2 mg/kg over several minutes.</td>
</tr>
<tr>
<td>METHYPREDNISOLONE</td>
<td>P, IVPB, B</td>
<td></td>
<td></td>
<td>CORTICOSTEROID: Each 500 mg or fraction thereof should be given over 1 minute at least. If dose over 500 mg give IVPB. Dilute in D5W or NS.</td>
</tr>
<tr>
<td>METOCLOPRAMID</td>
<td>P, IVPB</td>
<td></td>
<td></td>
<td>GI STIMULANT/ANTIEMETIC: May be given undiluted in doses of 10 mg or less IVP slowly over 2 minutes. Too-rapid injection will cause intense anxiety, restlessness, and then drowsiness. Larger doses can be given IVPB in D5W or NS. Monitor vital signs.</td>
</tr>
<tr>
<td>METOPROLOL</td>
<td>P</td>
<td>CC</td>
<td></td>
<td>BETA-ADRENERGIC BLOCKING AGENT: Post MI usual dose 5 mg undiluted IVP slowly over 1 minutes. Repeat at 5 min. intervals until 15 mg is given or desired result. Monitor vital signs, especially HR. Onset 1 to 2 minutes.</td>
</tr>
<tr>
<td>Drug</td>
<td>Method</td>
<td>Where</td>
<td>Who</td>
<td>Comments</td>
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</tr>
<tr>
<td>METRONIDAZOLE</td>
<td>IVPB</td>
<td></td>
<td></td>
<td>ANTIBACTERIAL/ANTIPROTOZOAL: Administer dose IVPB over 1 hour. Do not refrigerate, precipitation may occur.</td>
</tr>
<tr>
<td>MIDAZOLAM</td>
<td>P, B,</td>
<td>CC</td>
<td></td>
<td>BENZODIAZEPINE/SEDATIVE-HYPOTONIC: MD must give, except in critical care units. Give dose slowly over 2 minutes. Monitor vital signs, especially respirations. See IV Anesthesia P&amp;P.</td>
</tr>
<tr>
<td>MORPHINE SULFATE</td>
<td>P, B,</td>
<td></td>
<td></td>
<td>NARCOTIC ANALGESIC: IVP dose should be diluted in at least 5 ml sterile water or NS. 10 mg or fraction thereof given slowly over 2 to 3 minutes. Monitor vital signs especially</td>
</tr>
<tr>
<td>NAFCILLIN</td>
<td>IVPB</td>
<td></td>
<td></td>
<td>ANTIBACTERIAL: Concentrations should be between 2 to 40 mg/ml. IVPB, infuse dose over 30 minutes.</td>
</tr>
<tr>
<td>NALOXONE</td>
<td>P, B,</td>
<td></td>
<td></td>
<td>NARCOTIC ANTAGONIST: Requires close observation. May be given undiluted. Each 0.4 mg or fraction thereof given over 15 seconds. For IV use may be diluted in NS or D&lt;sub&gt;5&lt;/sub&gt;W. Monitor vital signs. May cause seizures.</td>
</tr>
<tr>
<td>NEOSTIGMINE</td>
<td>P</td>
<td>CC</td>
<td></td>
<td>CHOLINERGIC AGENT: Usual dose 0.5 to 2 mg as antidote to non-depolarizing muscular block. May give undiluted. Use IV only formula. Rate 0.5 mg or fraction thereof over 1 hour.</td>
</tr>
<tr>
<td>NITROGLYCERIN</td>
<td>B, I</td>
<td>CC</td>
<td></td>
<td>VASODILATOR: Usual dose 5 to 20 mcg/min. Standard concentration: 50 mg/250 ml D&lt;sub&gt;5&lt;/sub&gt;W (200 mcg/ml) in glass bottles only. Monitor vital signs closely. Use special NTG IV set.</td>
</tr>
<tr>
<td>NITROPRUSSIDE</td>
<td>B, I</td>
<td>CC</td>
<td></td>
<td>ANTIHYPERTENSIVE/VASODILATOR: Standard concentration: 50 mg/250 ml D&lt;sub&gt;5&lt;/sub&gt;W only (200 mcg/ml). Usual dose 0.3 to 10 mcg/kg/min. Continuous automatic blood pressure monitoring. Avoid extravasation. Light sensitive, cover bottle.</td>
</tr>
<tr>
<td>NOREPINEPHRINE</td>
<td>B, I</td>
<td>CC</td>
<td></td>
<td>VASOPRESSOR: Standard conc.: 4 mg/250 ml (16 mcg/ml) in D&lt;sub&gt;5&lt;/sub&gt;W. Dose: 0.5 to 30 mcg/kg/min. Monitor vital signs closely.</td>
</tr>
<tr>
<td>OCT REOTIDE</td>
<td>P, IVPB, B, I</td>
<td></td>
<td></td>
<td>ANTI DIARRHEAL/GROWTH HORMONE SUPPRESSANT: IVP may give undiluted over 3 minutes. IVPB, dilute in 50 to 100 ml D&lt;sub&gt;5&lt;/sub&gt;W or NS and infuse over 30 min.</td>
</tr>
<tr>
<td>ONDANSETRON</td>
<td>P, IVPB, B, I</td>
<td></td>
<td></td>
<td>ANTIEMETIC: IVP, 4 mg may be given undiluted over 2 to 5 minutes. IVPB dose diluted in 50 ml D&lt;sub&gt;5&lt;/sub&gt;W or NS and infused over 15 to 30 minutes. Monitor</td>
</tr>
<tr>
<td>Drug</td>
<td>Method</td>
<td>Where</td>
<td>Who</td>
<td>Comments</td>
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<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>OXACILLIN</td>
<td>P, IVPB, B</td>
<td></td>
<td></td>
<td>ANTIBACTERIAL: Too rapid rate may cause seizures. IVPB or IV dilute to final Cont. of 0.5 to 40 mg/ml. IVPB over 30 minutes.</td>
</tr>
<tr>
<td>PENICILLIN</td>
<td>IVPB, B</td>
<td></td>
<td></td>
<td>ANTIBACTERIAL: May be diluted in D₅W or NS. Up to 5 million units use 100 ml. Infuse over 30 to 60 minutes for IVPB.</td>
</tr>
<tr>
<td>PHENOBARBITAL</td>
<td>P</td>
<td>CC</td>
<td></td>
<td>BARBITURATE/SEDATIVE/HYPNOTIC/ANTICONVULSANT: MD must give, except in critical care unit. Rate: 60 mg or fraction thereof over 1 minute. Monitor patient closely.</td>
</tr>
<tr>
<td>PHENTOLAMINE</td>
<td>SQ</td>
<td>CC</td>
<td></td>
<td>VASODILATOR: Treatment of dermal necrosis after extravasation of epinephrine, norepinephrine, dopamine: must give subcutaneously after diluting 5-10mg in 10ml normal saline, must infiltrate area within 1st 12 hours.</td>
</tr>
<tr>
<td>PHENYLEPHRINE</td>
<td>B, I</td>
<td>CC</td>
<td></td>
<td>VASOPRESSOR: Standard conc.: 50mg/250 ml D₅W (200 mcg/ml). Usual dose: 50 to 100 mcg/min.</td>
</tr>
<tr>
<td>PHENYTOIN</td>
<td>P, IVPB, I</td>
<td></td>
<td></td>
<td>ANTICONVULSANT: Very alkaline, flush with NS before and after. For IVP, maximum rate 50 mg/min. May give IVPB in 100 ml NS with in-line filter. Use fosphenytoin for IV! Monitor vital signs during infusion.</td>
</tr>
<tr>
<td>PHYSOSTIGMINE</td>
<td>P</td>
<td>CC</td>
<td></td>
<td>CHOLINERGIC/ANTIDOTE: MD must give except in critical care units. May give undiluted. Rate of 1 mg or fraction thereof over 1 to 3 minutes.</td>
</tr>
<tr>
<td>PHYTONADIONE (VIT K)</td>
<td>P, IVPB</td>
<td>CC</td>
<td></td>
<td>COAGULANT: IV not preferred route. Use oral form unless Npo or great urgency to reverse anticoagulation. MD must give IVP. IVPB can be given use D₅W or NS. Infuse at rate not faster than 1 mg/min. Hypersensitivity or anaphylaxis is of concern.</td>
</tr>
<tr>
<td>PIPERACILLIN/TAZOBACTAM (ZOSYN)</td>
<td>P, IVPB</td>
<td></td>
<td></td>
<td>ANTI BACTERIAL: Avoid rapid administration. IVP, each 1 gm diluted with at least 5 ml of sterile water or NS and given over 3 to 5 minutes. IVPB, add dose to 50 to 100 ml D₅W or NS and infuse over 30 to 60 minutes.</td>
</tr>
<tr>
<td>POTASSIUM</td>
<td>IVPB, B, I</td>
<td></td>
<td></td>
<td>ELECTROLYTE: If conc. exceeds 40 mEq/L, need IV pump. Rate and concentration is never to exceed 10 mEq/100m1 over 1 hour.</td>
</tr>
<tr>
<td>PROCAINAMIDE</td>
<td>P, IVPB, B, I</td>
<td>CC, Step Down</td>
<td>RNs ACLS</td>
<td>ANTIARRHYTHMIC: For IVP dilute each 100 mg with 5 to 10 ml of D₅W, maximum rate 50 1 mg/min. Standard concentration: 2000 mg/500 ml D₅W (4 mg/m1). Usual IV dose is 1 to 6 mg/min.</td>
</tr>
<tr>
<td>Drug</td>
<td>Method</td>
<td>Where</td>
<td>Who</td>
<td>Comments</td>
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<td>---------------------------------------------------------------------------</td>
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<tr>
<td>PROCHLORPERAZINE</td>
<td>P</td>
<td></td>
<td></td>
<td>PHENOTHIAZINE/ANTIEMETIC: Dilute each 5 mg (1 ml) with 9 ml NS. Rate: each 5 mg or fraction thereof over 2 minutes. Monitor vital signs. Watch for extrapyramidal symptoms. Do not administer in hand or wrist veins</td>
</tr>
<tr>
<td>PROMETHAZINE</td>
<td>P</td>
<td></td>
<td></td>
<td>PHENOTHIAZINE/ANTIEMETIC: Dilute 25 to 50 mg in total volume of 10 ml NS. IVP each 25 mg or fraction thereof over 2 minutes.</td>
</tr>
<tr>
<td>PROPOFOL</td>
<td>B, I</td>
<td>CC</td>
<td></td>
<td>GENERAL ANESTHETIC/SEDATIVE-HYPNOTIC: Dosage is individualized. Usual concentration 10 mg/ml. Strict aseptic technique imperative, emulsion supports rapid growth of microorganisms. Monitor patient closely for hypotension.</td>
</tr>
<tr>
<td>PYRIDOSTIGMINE</td>
<td>P</td>
<td>CC</td>
<td>MD</td>
<td>CHOLINESTERASE INHIBITOR: MD must give. May be given undiluted. Rate dependent upon indication.</td>
</tr>
<tr>
<td>RETEPLASE</td>
<td>P</td>
<td>CC</td>
<td></td>
<td>10 units over 2 minutes. Repeat 10 units in 30 minutes, unless anaphylaxis or serious bleeding occur. Use diluent in kit.</td>
</tr>
<tr>
<td>SODIUM BICARBONATE</td>
<td>P, IVPB, B</td>
<td></td>
<td></td>
<td>ALKALINIZING AGENT: Check for compatibility with contents in IV bottle. Incompatible with calcium, dobutamine, epinephrine and norepinephrine.</td>
</tr>
<tr>
<td>SUCCINYLCHOLINE</td>
<td>P</td>
<td>CC</td>
<td></td>
<td>NEUROMUSCULAR BLOCKING AGENT: MD must give, except in critical care unit. Patient's airway needs to be protected, be prepared to support ventilation. May be given undiluted initial dose over 30 seconds.</td>
</tr>
<tr>
<td>THEOPHYLLINE (AMINOPHyllINE)</td>
<td>IVPB, B</td>
<td></td>
<td></td>
<td>BRONCHODILATOR: Standard conc.: 400 mg/500 ml D&lt;sub&gt;5&lt;/sub&gt;W (0.8 mg/ml). Rate expressed in mg/hour. 400 mg theophylline = 500 mg aminophylline.</td>
</tr>
<tr>
<td>THIAMINE</td>
<td>P, B</td>
<td></td>
<td></td>
<td>VITAMIN: IVP route not common. For IVP, 100 mg or fraction thereof over 5 minutes. For IV infusion, can be added 50 ml NS or to most IV solutions. Anaphylaxis can occur Allergic reactions to IV doses is less than 0.1%.</td>
</tr>
<tr>
<td>TRIMETHOPRIM/ SULFAMETHOXAZOLE</td>
<td>IVPB</td>
<td></td>
<td></td>
<td>ANTIBACTERIAL/ANTIPROTOZOAL: Each 5 ml must be diluted in 125 ml D&lt;sub&gt;5&lt;/sub&gt;W infused over 60 to 90 minutes. Stable for 6 hrs. If fluid restriction, each 5 ml per 75 ml, infuse over 60 to 90 minutes, stable for 2 hours.</td>
</tr>
<tr>
<td>Drug</td>
<td>Method</td>
<td>Where</td>
<td>Who</td>
<td>Comments</td>
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<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>VANCOMYCIN</td>
<td>IVPB</td>
<td></td>
<td></td>
<td>ANTIBACTERIAL: Each 500 mg diluted in 100 ml D5W or NS. Infuse every 1 gram over 60 minutes. Too rapid infusion may cause hypotension. Slow rate if &quot;red-man syndrome&quot; occurs (rash on face, neck, truck, and/or upper extremities).</td>
</tr>
<tr>
<td>VASOPRESSIN</td>
<td>IVPB, B, I</td>
<td>CC</td>
<td></td>
<td>VASOPRESSOR: Control of GI hemorrhage. For IVPB 20 units in 50 to 100 ml D5W or NS over 30 minutes. For IV infusion, standard conc. 200 units/500 ml D5W (0.4 units/ml). Infusion rate 0.1 to 0.6 units/minute.</td>
</tr>
<tr>
<td>VECURONIUM</td>
<td>P</td>
<td>CC</td>
<td></td>
<td>NEUROMUSCULAR BLOCKING AGENT: Initial dose 0.08 to 0.1 mg/kg IVP over 30-60 seconds. Each 10 mg must be diluted with 5 ml sterile water (supplied). Monitor closely, drug produces apnea, controlled artificial ventilation with oxygen must be continuous.</td>
</tr>
<tr>
<td>VERAPAMIL</td>
<td>P</td>
<td>CC, Step Down</td>
<td>RNs ACLS</td>
<td>CALCIUM CHANNEL BLOCKER/ANTIARRHYTHMIC: May give undiluted. Usual dose is 5 to 10 mg initially over 2 minutes. Monitor vital signs, ECG continuously.</td>
</tr>
</tbody>
</table>
PATIENT SELF-ADMINISTRATION OF MEDICATIONS (BEDSIDE MEDICATIONS)

Policy:

Self-administration of medications by patients will be allowed but not encouraged. The competency of the patient or family member will be assessed prior to allowing self-administration of medications. A patient who is felt to be mentally or physically incompetent or incapacitated will not be allowed to self-administer medications.

Excepted medications may be left at the bedside only on the specific order from the physician. Medications left at the bedside shall be administered following proper policy and procedure as outlined here.

Clinical notes in Empower must document patient assessment of competency to self-administer medications.

Procedure:

The physician or licensed independent practitioner must write specific orders for self-administration of medication by the patient or family.

The medication shall be clearly and properly labeled by Pharmacy Services.

The medication shall, unless otherwise ordered, be locked in the patient's medication cassette/storage bin along with the rest of the patient's medication sent from Pharmacy Services.

The nurse shall make sure the patient has enough medication to last until pharmacy reopens. The nurse will notify Pharmacy Services when the medication needs refilling.

The physician, nurse, pharmacist or other appropriate healthcare provider within their scope of practice will review administration techniques, including frequency, route and dose with the patient. The patient will also be educated about how the medication is expected to perform, any side effects that may occur from taking the medication, and how to self-monitor the effects of the medications and document assessment in clinical notes.

Patients, parents, or family members who wish to administer medications must be assessed for competency before they will be granted approval to do so. In this policy these persons shall be referred to as "non-staff persons".

The nurses on the patient care units who are licensed by the state, authorized by the hospital and are within their scope of practice to administer medications will assess the non-staff person's level of competency. The nurse will verify the patient's or family member's knowledge of the medication (i.e., the reason for the medication, how the medication is prescribed, how to safely take the medication, what clinical effects to expect, what potential side effects may occur). If it is determined that the non-staff person is not competent to administer medications, he or she will not be allowed to do so until further drug education and reassessment proves the level of competency needed.

Responsible Staff Members and Responsibilities in the Self-Administration Process:

<table>
<thead>
<tr>
<th>Responsible Person(s)</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Attending Physician: Written order for self-administration shall appear on the physician's order sheet.</td>
<td></td>
</tr>
</tbody>
</table>
• Pharmacist: The Pharmacist will label self-administered bedside medications with instructions for use.

• Attending Physician and/or registered nurse and/or pharmacist: Patient shall be thoroughly instructed on how to take medication, including amount and time, expected actions, side effects and results of medication, and patient must demonstrate knowledge and understanding of same.

• RN: Patient education for self-administration of medication shall be documented in clinical notes in EmPower.

• RN or LPN/LVN: Medication nurse shall keep the required supply of medication at bedside as stated by the physician's orders.

• RN or LPN/LVN: Medication nurse shall record each shift, name of medication, number of times self-medicated in the Intake section in EmPower.

An appropriate patient care provider licensed to administer medications will directly supervise and observe the non-staff person's administration of medications. The dose will be documented in the patient's medical record in the Intake section of EmPower.

- If the patient or non-staff person approved to administer medications has administered the medication(s) without direct supervision/observation, the nurse will check the medication container(s). This will be done to confirm that the medication has been taken. The nurse will also ask the patient or the non-staff person administering the medication about how and when it was taken.

Medications shall not be left at the bedside for self-administration, with the exception of the following, which have been approved by the Pharmacy and Therapeutic Committee:

• Patient-controlled analgesia, i.e., morphine, hydromorphone
• Aerosols and/or bronchodilators used in the treatment of bronchospasms
• Nitroglycerin sublingual tablets not to exceed 10 tablets
• Antacids, one dose of liquid or tablet only
• Eye drops
• Throat lozenges
• External topical preparations
• Oral birth control pills

No schedule II, III, IV or V controlled substances, except for patient-controlled analgesia approved by P & T Committee, shall be ordered for or left at the patient's bedside.

All medications left at the bedside may only be administered following the Self-Administration of Medications policy and procedures outlined above. If the tenets of that policy are not met, the medications shall not be left at the patient's bedside for self-administration and the physician will rewrite the medication order to state that.

All medications left at the bedside shall be properly labeled per hospital policy.

Original Effective Date: 1/24/2014
Reviewed/Revised: 6/2014
The nursing staff will be responsible for keeping records of self-administration. Bedside medications will be listed on the electronic medication administration record (eMAR) document. Records of administration will be documented in the Intake section of EmPower. Bedside medication containers will be checked by the medication nurses each shift.

Bedside medications must be kept in a cabinet, drawer or in the possession of the patient.

MONITORING MEDICATION EFFECTS

Policy:

The clinical effects of medications shall be monitored to assess the effectiveness of medication therapy and to minimize the occurrence of adverse events. Each patient's response to medication will be monitored individually and according to clinical needs. Patient medication monitoring will be collaborative between the nurses, physicians, and pharmacists, and others involved in the patient's care with the patient, family or caregiver.

Patient medication monitoring will be used to improve the patient's medication regimen and/or other clinical care and treatment processes.

Procedure:

The patient care provider (nurse, respiratory therapist, physical therapist, etc.) will monitor and assess the effect of medications on the patient.

Monitoring and assessing the effect of the medication will include, but will not be limited to:

- Direct observation of the patient, during physical assessments, evaluations or other patient contact, to determine the patient's physiological response to the administered medication and any problems or adverse effects associated with the medication.

- Review of:
  - Results of clinical diagnostic tests
  - Results of laboratory values/levels
  - The medication profile
  - The patient's clinical condition and progress documented in the medical record (i.e., progress notes written by medical staff, nursing and other disciplines, care plans notations, and consultation reports)

- The patient's own perceptions about medication side effects, and possibly, perceived efficacy and/or sensitivities the patient may have to the medication.

When the patient is given a medication that he/she has not taken before, the first several doses will be monitored.

- Patients may experience adverse reactions to medications that they have not taken before. Therefore, when new medications are administered to the patient, the care provider will physically observe and assess the patient one-half hour (30 minutes) after receipt to assure no adverse effect. The patient care provider will again observe the patient after an additional 30 minutes (one (1) hour from initial administration time) for adverse effects or sensitivities. Details on adverse effects that occur or, if none, will be documented on the MAR and nurse progress notes in detail or as "No adverse effects observed."

- For medications or classes of drugs known to commonly produce side effects or sensitivities in patients (e.g., sulfa drugs), the patient will be monitored for 24 hours after the first dose.
The patient may receive a test dose, when appropriate and available (i.e., certain antibiotic classes), to identify an adverse drug reaction, allergy or sensitivity to a suspected medication or class.

Other laboratory tests may be ordered to optimize therapy and prevent adverse effects (i.e., peak and trough levels).

Patient medication monitoring and physical assessment observations will be documented in the patient's medical record.
ADVERSE DRUG REACTION REPORTING

Policy:

• The medical, nursing and pharmacy staffs shall always be alert to the potential for, or presence of, adverse drug reactions (ADRs) and take the appropriate steps to reduce the incidence of ADRs. All significant ADRs will be reported to the FDA and the involved drug manufacturer. As part of this hospital's overall evaluation of medication use, the Pharmacy and Therapeutics Committee will evaluate all significant adverse drug reactions. The purposes of this review are to:
  • Make appropriate recommendations to prevent future occurrence.
  • Assess the safety of drug therapies, especially new ones.
  • Educate health professionals on drug effects and increase their level of awareness regarding adverse drug reaction.
  • Identify and measure trends and institute corrective actions designed to improve patient outcomes by minimizing potential adverse drug reaction.
  • Provide quality assurance/improvement screening findings for use in medication use evaluation programs.

Definitions:

An adverse drug reaction is defined here as: "Any response to a drug that is noxious and unintended, and which occurs at doses normally used in humans for prophylaxis, diagnosis or therapy of disease, or for the modification of physiological function".

A significant ADR will be defined as any unexpected, unintended, undesired, or excessive response to a drug that:

Requires discontinuation of the drug,
Requires changing the drug,
• Requires modifying the dose,
• Necessitates admission to a hospital,
• Prolongs stay in a health care facility,
• Necessitates supportive treatment,
• Significantly complicates diagnosis,
• Negatively affects prognosis, or
• Results in temporary or permanent harm, disability, or death.
Identification:

- Potential ADRs will be continuously monitored. Surveillance and reporting will be based on:
  - Adverse drug reactions suspected by pharmacists, physicians, nurses and patients.
  - High-risk drugs or patients with disease states highly susceptible to adverse drug reactions.
  - The use of "antidote" drugs that are used to treat adverse drug reactions (i.e., orders for immediate doses of antihistamine, epinephrine or corticosteroids). See Table 1. The nurse dispensing these ADR "alert" medications from the automated dispensing machine will be automatically prompted at the time of dispensing, to respond yes or no to a question of the effect " Is this medication being used to treat an adverse drug reaction?"
  - An adverse drug reaction may also be identified retrospectively by medical record review and by regular pharmacy review of automated dispensing records of affirmative nurse responses to ADR medication use.

Classification:

- The Pharmacist will assign a severity rating to each adverse drug reaction report according to the following scale:

  Level I: The problem was corrected before it reached the patient
  Level II: The reaction resulted in no harm to the patient.
  Level III: The reaction resulted in a need for increased monitoring of the patient. There was no change in vital signs and no harm to the patient.
  Level IV: The reaction resulted in a need for increased monitoring of the patient and a change in vital signs were noted, but ultimately resulted in no harm to the patient OR reaction required additional blood drawn for laboratory monitoring OR reaction resulted in treatment for occurrence with another drug.
  Level V: The reaction increased the patient's length of stay.
  Level VI: The reaction resulted in a significant, persistent, or permanent change, impairment, damage or disruption of the patient's body function/structure, physical activities or quality of life OR it resulted in a suspicion that exposure to a drug prior to conception or during pregnancy resulted in an adverse outcome in a child (congenital anomaly).
  Level VII: The reaction was life threatening (the patient was at risk of dying or it was suspected that continued use of the drug would result in death) or contributed to the death of the patient.

Level I is considered a potential reaction that was averted by a Pharmacist intervention. These should be reviewed and tabulated.

Levels II-IV are considered non-significant and should be reviewed and tabulated.
Levels V-VII are considered significant and need to be reviewed by the P&T Committee, reported to FDA's MedWatch and drug's manufacturer.

- Adverse drug reaction reports will be further analyzed by:
  - Method of reporting (spontaneous or retroactive medical record abstraction).
  - Type of adverse drug reaction (dose related or non-dose related).
  - Time of occurrence (before admission or during hospitalization).

Procedure:

- Adverse drug reaction reports shall contain:
  - Patient's age, sex, and race
  - Description of the drug reaction and the suspected cause
  - Name of drug(s) suspected of causing the reaction
  - Administration route and dose
  - Name(s) of other drugs received by patient
  - Treatment of the reaction, if any

- The prescriber shall be contacted immediately in the event of a potential adverse drug reaction. A pharmacist shall investigate all potential adverse drug reaction reports. Concurrent reports of potential adverse drug reaction can be reported to pharmacy for investigation or in writing on the medication variance reporting form. A description of each suspected adverse drug reaction and outcomes shall be documented in the patient's medical record.

- Adverse drug reaction reports will be sent to the Director of Pharmacy Services for the completion of the hospital's ADR report. If Pharmacy Services identifies the adverse drug reaction, the pharmacist discovering it will initiate the ADR report.

- A Pharmacist will investigate “stat” and one-time orders for drug antidotes and drugs commonly used to treat ADRs. See Table 1 for list of antidotes/treatments.

- The Director of Pharmacy Services shall review these ADR reports, along with other significant reports from the literature and report the findings at least quarterly to the Pharmacy and Therapeutics Committee.

- The Pharmacy and Therapeutics Committee will produce periodic adverse drug reaction summary reports. The focus will be on identifying risk factors, trends in reporting and educational needs of the organization. Emphasis will be placed on concurrent reporting which can influence patient care and result in documentation in the medical record, rather than retrospective reporting. The results of adverse drug reaction analysis may be of use in medication use evaluation programs and other quality assurance/improvement efforts. Drugs, which are frequently encountered in adverse drug reaction analysis, may be targeted for more intense evaluation or education.
• If the Pharmacy and Therapeutics Committee determines that the findings may be indicative of a clinician's performance, the adverse drug reaction report will be forwarded to the medical service for peer review in accordance with the standards for renewing and revising clinical privileges.

• Rare, serious or unexpected adverse drug reactions (Level V and higher) will be reported to the Food and Drug Administration's (FDA) MedWatch program and to the drug's manufacturer. As defined by FDA, "serious" means "an adverse drug experience that is life threatening, is permanently disabling, requires inpatient hospitalization, requires prescription drug therapy or has an outcome of death, congenital anomaly, cancer or overdose." "Unexpected" means "an adverse drug experience that is not listed in the current labeling" and includes any event that may be related to side effects listed in the labeling but that differs because of greater severity or specificity.

• The P&T Committee, in collaboration with Nursing and Medical staffs, will periodically review the definition of a significant ADR, severity levels and the method of identification.
### Table 1. Antidote drugs used to detect adverse drug reactions

<table>
<thead>
<tr>
<th>Acetylcysteine</th>
<th>Hyaluronidase</th>
<th>Quetiapine</th>
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<tbody>
<tr>
<td>Adenosine</td>
<td>Hydrocortisone</td>
<td>Risperidone</td>
</tr>
<tr>
<td>Amrinone</td>
<td>Insulin</td>
<td>Sodium Bicarbonate</td>
</tr>
<tr>
<td>Atenolol</td>
<td>Ipecac</td>
<td>Sodium Polystyrene Sulfonate</td>
</tr>
<tr>
<td>Atropine</td>
<td>Isoproterenol</td>
<td>Thioridazine</td>
</tr>
<tr>
<td>Benztropine</td>
<td>Lidocaine</td>
<td>Thiothixene</td>
</tr>
<tr>
<td>Bretylium</td>
<td>Loxapine</td>
<td>Triamcinolone</td>
</tr>
<tr>
<td>Calcium Chloride</td>
<td>Magnesium Sulfate</td>
<td>Trifluoperazine</td>
</tr>
<tr>
<td>Calcium Gluconate</td>
<td>Mannitol</td>
<td>Trihexyphenidyl</td>
</tr>
<tr>
<td>Charcoal, activated</td>
<td>Mesoridazine</td>
<td></td>
</tr>
<tr>
<td>Chlorpromazine</td>
<td>Methylprednisolone</td>
<td>Verapamil</td>
</tr>
<tr>
<td>Ch orprothixene</td>
<td>Me oprolol</td>
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<tr>
<td>C ozapine</td>
<td>Molindone</td>
<td></td>
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<tr>
<td>Cyproheptadine</td>
<td>Morphine</td>
<td></td>
</tr>
<tr>
<td>Dextran</td>
<td>Naloxone</td>
<td></td>
</tr>
<tr>
<td>Dextrose 50%</td>
<td>Neuromuscular Blocking Agents:</td>
<td></td>
</tr>
<tr>
<td>Digitalis</td>
<td>e.g. Pancuronium Bromide</td>
<td></td>
</tr>
<tr>
<td>Digoxin</td>
<td>Nitroglycerin</td>
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<tr>
<td>Diltiazem</td>
<td>Nitroprusside</td>
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<tr>
<td>Diphenhydramine</td>
<td>Norepinephrine</td>
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<tr>
<td>Dopamine</td>
<td>Olanzapine</td>
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<tr>
<td>Epinephrine</td>
<td>Perphenazine</td>
<td></td>
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<tr>
<td>Esmolol</td>
<td>Phentolamine</td>
<td></td>
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<tr>
<td>Eye Irrigation Coln.</td>
<td>Phenytoin</td>
<td></td>
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<tr>
<td>Flumazenil</td>
<td>Phytonadione</td>
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<tr>
<td>Fluphenazine</td>
<td>Pimozide</td>
<td></td>
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<tr>
<td>Furosemide</td>
<td>Procainamide</td>
<td></td>
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<tr>
<td>Glucagon</td>
<td>Prochlorperazine</td>
<td></td>
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<tr>
<td>Haloperidol</td>
<td>Promazine</td>
<td></td>
</tr>
<tr>
<td>Hetastarch</td>
<td>Propranolol</td>
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</table>

Original Effective Date: 1/24/2014
Reviewed/Revised: 6/2014
MEDICATION ERRORS: REPORTING AND PROCESSING

Policy:

The hospital and its clinics encourage active involvement in the reporting and continual monitoring of errors with a long-term organizational commitment to error elimination. There is a non-punitive, supportive environment for all staff to report errors and potential errors. All professionals (physicians, nurses, pharmacists and other healthcare workers) involved in the medication use process must be actively involved in the reporting and process improvements that reduce the occurrence of medication errors.

All medication errors identified will be documented through this hospital’s risk management system. The Medication Safety Committee will review and trend medication error data and make recommendations to the Pharmacy and Therapeutics Committee, and the hospital’s Quality Assurance Committees to help reduce the occurrence of medication errors. The Pharmacy and Therapeutics Committee will review medication error data and recommend process changes or improvements to help reduce errors as part of the hospital improvement process.

Definitions:

Medication Error:

Any preventable medication event causing or having the potential to cause harm to the patient while the patient's medication regimen is under the control of the healthcare professional or healthcare facility.

Actual medication error:

An error, as above, that actually reaches the patient.

Potential medication error:

Any mistake in prescribing, dispensing or planned medication administration that is detected and corrected (through intervention of another healthcare worker or the patient) before actual medication administration to the patient.

Harm:

Impairment of the physical, emotional or psychological function or structure of the body and/or pain resulting there from.

Categorization of medication errors:

Medication errors will be categorized into 3 different categories for hospital reporting purposes*

- **Category 1** Medication errors that did not reach the patient.
- **Category 2** Medication errors that reached the patient but did no harm.
- **Category 3** Medication errors where harm occurred.

- RPM recommendations for medication error documentation 2007. The National Coordinating Council for Medication Error Reporting and Prevention (NCC MERP) adopted a Medication error index that classifies errors according to severity into categories A through 1. See appendix to this policy for the recommended approach to reporting medication errors categorized by use of NCC MERP categories A to I into RPM categories I to 3.
Medication errors fall into one of the following categories: Prescribing, Dispensing, administering and errors of Omission. Definitive medication error categories:

**Prescribing errors:** Illegible handwriting, use of unapproved abbreviations, inappropriate dosing regimens, redundant medications, orders for known allergens.

**Deteriorated Drug error** Administration of a drug that has expired or physically deteriorated.

**Drug Preparation error** Medication prepared (IV admixed) or inappropriately crushed contrary to recommendations by manufacturer or standard of practice.

**Wrong (Unauthorized) drug:** Administration of a medication that has not been ordered for that patient.

**Extra dose:** Any dose given in excess of the total number of times ordered by the physician. **Wrong dose:** Medication given in excess or deficient of dose ordered by physician.

**Omission:** Failure to give an ordered dose.

**Monitoring Error:** Failure to review a prescribed regimen for appropriateness or failure to order appropriate labs necessary for safe medication administration.

**Wrong route:** Medication administered to a patient using a different route than ordered by physician.

**Wrong dosage form:** Dose administered in a different form than ordered by physician when a form was specified.

**Wrong technique:** Lack of or incorrect performance of a procedure, ordered by the physician, to be done prior to administering dose. Example: Failure to obtain heart rate or blood pressure before giving a dose.

**Wrong time:** Dose given more than 60 minutes before or after scheduled administration time.

**Procedure when medication error occurs:**

- When a medication error occurs three things shall occur in the following order:
  
  - The physician will be notified and the patient will be evaluated.
  
  - The medication will be recorded as given in the medical record.
  
  - The error will be recorded in detail within a hospital incident reporting form(s).

- The person who discovers an error will document all relevant details on the incident report form and forward immediately to the nurse in charge for any investigation and follow-up. The investigation of the incident will include noting circumstances of the incident and collecting needed documentation (e.g. orders, MARs, actual drug packaging, etc.). Any documentation will be attached to the form and be reviewed with the individual involved.

- Any medication given in error or omitted in error will be noted on the medication administration record (MAR) and the physician notified. Notification of the physician and the response will be documented.
• Following satisfactory investigation and documentation of the error, and reviewed by the nurse in charge, all completed medication error reports are to be sent to the Risk Manager. The Pharmacy director should also be notified of the details of the error. Pharmacy will prepare monthly categorized reports of the medication errors for presentation at the Pharmacy & Therapeutics Committee.

• Medication error summaries and all potential medication errors will be reviewed by the Medication Safety Committee. Medication errors will be evaluated and summarized with the purpose of changing and improving medication use process and education to help reduce the rate of medication errors. The medication safety committee will be a multidisciplinary committee that reports to the Pharmacy and Therapeutics Committee and indirectly to the Quality Council.

• All medication error reports evaluated as significant (Level 4 or above) will be referred to the Pharmacy and Therapeutics Committee for review.

Attach RPM, NCC MERP paperwork...
## INCIDENT REPORTING FORM

<table>
<thead>
<tr>
<th>Name</th>
<th>MR#</th>
<th>DOB</th>
<th>AGE</th>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

### I. General Identification

- **Acute Care Patient**
- **Swing Bed Patient**
- **Observation (24 hr. Max)**
- **Out-Patient**
- **Surgical Patient**
- **Employee**
- **Visitor**
- **Non Employed Staff**

### II. Location of Occurrence

- **Admitting Diagnosis**
- **Emergency Room**
- **Pharmacy**
- **Surgery**
- **Administration**
- **Laboratory**
- **Rehabilitation**
- **Hospital Campus**
- **Dietary**
- **CHD Clinic**
- **Lobby/Gift Shop**
- **Business Office**
- **Medical Records**
- **Purchasing**
- **Acute Care**
- **Swing Bed**
- **Radiology**
- **Other (specify)**

### III. Occurrence Information

<table>
<thead>
<tr>
<th>Date:</th>
<th>Time:</th>
<th>Location of Occurrence:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Condition Prior To Event**
  - **Alert**
  - **Anesthetized**
  - **Asleep**
  - **Disoriented**
  - **Other**

- **Medications: (given in the last 12 hours)**

- **Dose/Time**

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Original Effective Date: 1/24/2014
Reviewed/Revised: 6/2014

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I.V. Event

1. Patient Rights & Organizational Ethics

- AMA/Elopement
- Consent/Lock of/ Incomplete/Inappropriate
- Treatment/ Procedure/ Medical Refusal
- Dr. Pacemacker
- Lack of Advance Directives
- Chain of Command/Failure to Implement/Non-Compliance
- Other

2. Assessment of Patients

- Lack of / Inappropriate
- Lack of assessment/ Rehabilitation
- Lack of assessment and.or rReporting Abuse
- Monitoring/Care of skin integrity/ Pressure sore
- Upon admission Present
- Q Developed after Advanced after 0
- Level= I II III IV V Location
- Other

3. Patient / Family / Other Education

- Lack of or insufficient Education
- Other

4. Cars of Patient - Falls

- Assisted Observed
- From bed Unobserved
- Sitting / commode/ wheel- Other
- chair or Geri-chair?

Is the patient high risk for falls? □Yes □No

5. Mobility Status/ Assistance

- None □Minimum □Moderate □Maximum
- Restraints used: □After fall □Prior to fall
- Type restraints: Side rails □Up □Half
- Medicated last 2 hours □Yes □No
- Gait Belt used □Yes □No

6. Surgery/Anesthesia/Special Procedures

- Acute MI/CVA w/in 48 hrs after surgery
- Anesthesia Complication/ Aspiration
- Death w/in 48 hr after surgery/procedure
- Improper discharge from surgery/ procedure
- Incorrect sponge/ Instrument Count
- Laceration/ Puncture
- Out-pt surgery/ Patient admitted after surgery
- Surgery canceled after anesthesia/ equipment failure

7. Equipment/ Machine/ Malfunction/ Failure

- Equipment/Machine □Malfunction
- □Failure
- Product name ____________________________
- Manufacturer __________________________ Lot# _______
- Unit # __________________________ Serial #

8. Laboratory / Radiology

- Delayed Lab draw/ X-ray
- Lost / Mishandled specimen
- Specimen collection error
- Error performing test/ result error
- Cytology Biopsy error
- Ref. Lab error
- Left w/o examination / Waiting time
- Unplanned/ Repeat lab or diagnostic procedure
- Adverse reaction to contrast media
Medication Misadventure
- Adverse Drug Reaction
- Infiltration
- Intravenous infection / phlebitis
- Medication / Substance

Dose _________________________ Time

Other ________________________

Blood Misadventure
- Absence of Transfusion Permit / Refusal
- Adverse reaction - Blood
- Blood Transfusion
  - Incorrect rate
  - Wrong amount
  - Infiltration
  - Wrong component
  - Not ordered
  - Wrong/Omitted filter
  - Unit wasted
  - Other
- Omitted/Patient refusal

Product Name ____________________ Dose

Units __________________________ Time Given

Emergency Department
- Seen In ER/Complication after discharge w/in 7 days
- Delay of Service. Wait time >
- Other ___________________________

Information Management
- Alteration of Records
- Change / Addition to Records after discharge
- Documentation / Charting deficiency
- Error/ Computer entry
- Loss of records
- Physician ordered Not done
- Request for review by unauthorized person

Safety/ Management of Environment
- Assault on premises
- Needle stick / BBP Exposure
- Possession / Use of drugs / narcotic on hospital campus
- Property damage
- Self inflicted injury
- Suicide attempt
- Unsafe condition or hazard

Surveillance/Prevention/ Infection Control
- Non-compliance with Infection Control precautions
- Inadequate TB documentation - Transfer to
- Potential nosocomial infection w/out infection Control Report
- Other __________________________

Miscellaneous
- Autopsy requested try family
- Complaint on Staff behavior
- Complaint on Physician behavior
- Medical Examiner's Case
- Short stay admission exceeding 24 hours

DESCRIPTION OF EVENT: __________________________________________________________

V Outcome (Select One)
- Allergic/Adverse reaction
- Arrest/ CPR
- Aspiration
- Coma/LOC
- Cardiac Arrhythmia
- Concussion
- Hemorrhage
- Hypovolemia
- Infection/ Sepsis
- Pneumothorax
- Heart Attack
- Seizure
- Prolonged Stay
- Febrile on discharge

Skeletal
- Amputation
- Dislocation
- Fracture
- Sprain/ Strain
- Teeth/ tooth injury

Tissue
- Abscess/ Decubitus/ Sore
- Abrasion/ Blister
- Burn
- Dehiscence
- Edema/ Swelling
- Fistula
- Hematoma/ Contusion
- Laceration
- Necrosis
- Wound Infection
- Reddened area/ Rash/ Ecchymosis
- 3rd or 4th degree vaginal tears

Miscellaneous
- Death
- None
- Prolonged facility stay
- Unknown
- Failure to apply fetal monitor correctly
- Other

WHY DID IT HAPPEN?

______________________________________________________________________________

______________________________________________________________________________
IV Severity

☐ No Injury/ Not Affected  ☐ Minor Injury  ☐ Major Injury

VII Employee Injury

Department: ________________________________
Nature of injury: __________________________

Job Performing: ________________________________
Location Injury Occurred: __________________________

VII Provider Involved- ________________________________

IX Other Involved ☐ Witness  ☐ Visitor  ☐ Employee

X Notification

Physician Name: ________________________________ Time Notified: ________________ Time Responded: ________________

Family Name: ________________________________ Time Notified: ________________ Time Responded: ________________
PERSON COMPLETING FORM -

X_________________________________ / ________________________________
Title: __________________________

Date: __________________________

(PRINTED NAME) (SIGNATURE)

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Reviewed/Revised: 6/2014

Original Effective Date: 1/24/2014
HIGH – RISK MEDICATIONS

Policy:

A list of high-risk medications shall be maintained and special precautions shall be used throughout the medication use process to reduce the risk of errors related to ordering and prescribing, transcribing, preparation, storage, distribution and administration.

The Pharmacy and Therapeutics Committee will review the hospital's formulary, past incidents of medication errors and medication utilization patterns to determine a list of high-risk/high alert medications. High alert medication lists will also be reviewed from other organizations such as the Institute for Safe Medication Practices (ISMP), United States Pharmacopoeia (USP) and from other national data available on medication use.

Medications that the Pharmacy and Therapeutic Committee may identify as high-risk or high alert may be derived from the following categories and specific medications:

High-Alert Drug Categories:
- IV Adrenergic agonists (i.e., epinephrine)
- IV Adrenergic antagonists (i.e., propranolol)
- Inhaled and IV Anesthetic agents (i.e., propofol)
- Cardioplegic solutions (hypothermic and hyperkalemic solutions administered to the myocardium during cardiac surgery)
- Chemotherapeutic agents
- Hypertonic Dextrose (20% or greater)
- Dialysis solutions
- Epidural or Intrathecal medications
- Glycoprotein IIb/IIIa inhibitors (i.e., eptifibatide)
- Oral hypoglycemics
- IV Inotropic medications (i.e., digoxin)
- Lipososmal forms of drugs (i.e., liposomal amphotericin B)
- IV Moderate sedation agents (i.e., midazolam)
- Oral Moderate sedation agents for children
- IV/Oral Narcotics/Opiates
- Neuromuscular blocking agents (i.e., succinylcholine)
- IV Radiocontrast agents
- IV Thrombolytic/Fibrinolytics
- Total parenteral nutrition solutions

Specific High-Alert Drugs:
- Insulin, subcutaneous and intravenous
- Intravenous amiodarone
- Opiates and narcotics
- Injectable potassium chloride (or phosphate) concentrate
- Injectable colchicine
- Intravenous (unfractionated) heparin
Injectable, low molecular weight heparin
• Sodium chloride solutions above 0.9%
• Intravenous lidocaine
• Injectable magnesium sulfate
• Oral methotrexate, for non-oncologic use
• Nesiritide
• Injectable nitroprusside, sodium
• Warfarin

**Definition:**

High-risk or high alert medications are drugs that have an increased risk of causing significant harm to a patient when used in error. The consequences of error associated with use of these medications can result in significant patient injury.

**Procedure:**

All high-risk drugs and drugs with a higher potential for dispensing error due to look-alike/sound-alike names, will be stored with a secondary caution label (red alert label), and will be segregated from other medications thereby alerting staff to take additional dispensing precautions. Pharmacy will provide a special storage area for high-risk medications.

To reduce risk of dispensing errors of high-risk medications the brand AND generic name of the medication will be included on all labels, if this provides clarity in medication identification.

To reduce the overall risk of errors of high-risk medications:

• Non-pharmacy staff access to these medications shall be reduced.
• Ordering, preparation and administration of high-risk medications shall be standardized.
• Double-check processes shall be implemented, used and maintained.
• The hospitals will maintain a strict policy for verbal or telephone orders that includes a series of “fail safe” components, such as requiring the prescriber to repeat the name, dosage and spelling of the prescribed medication.
• Selection of medications for the formulary will favor those medications that do not pose "sound-alike" problems.
• The Pharmacy computer system will provide identification notices on containers/bins for medications that fall into the look-alike, sound-alike category and/or other medications that the pharmacy and medical staff have identified as having a high potential for errors.

On a quarterly basis the Pharmacy and Therapeutics Committee will review utilization patterns of medications, medication error patterns and other internal data, together with external data from such organizations as the Institute for Safe Medication Practices, the United States Pharmacopoeia, JCAHO and other authoritative sources to identify any high-risk medication which require special management.

The Pharmacy and Therapeutics Committee shall review the high-risk medication list biannually to evaluate the specific precautions implemented by the Department of Pharmacy Services and patient care units to reduce errors associated with these medications. Medications may be added to or deleted from the list based on these biannual reviews.

Reference: Institute of Safe Medicine Practices. [www.ismp.org](http://www.ismp.org)
Anticoagulants - Warfarin, Heparin

Concentrated electrolyte solutions - Potassium Chloride, Sodium Phosphate, Magnesium Sulfate, Calcium Gluconate, Calcium Chloride, Sodium Chloride 23.4%, 3% Sodium Chloride IVPB's

Controlled/Schedule II, III, IV-Fentanyl Patches

All Insulins

Look-alike/sound-alike medications-see CRH List

Narrow therapeutic range-Lithium, Digoxin, Phenytoin, Fosphenytoin

New medications to the hospital or to the US drug market will be evaluated for high-risk potential

Psychotherapeutics- IV Haldol, Droper dol (anti-emetic), IV promethazine

Thrombolytics-Reteplase, Alteplase (TPA)

Propofol
CHEMOTHERAPY HANDLING

Policy:

Pharmacy Services does not prepare intravenous cancer chemotherapy agents. Oral cancer chemotherapy will be dispensed via the usual drug distribution system. Oral agents will be labeled with an auxiliary caution label: “Caution: Chemotherapy Agent.”
INVESTIGATIONAL MEDICATIONS

Policy:

Investigational drugs (medications that are not FDA approved) are not permitted to be used at this hospital, except under the circumstances outlined below:

When patients who are involved in an investigational drug study through another facility are admitted to the Hospital for treatment, the attending physician will contact the prescribing physician/principal investigator for details and any specific contraindication or monitoring parameters of the investigational protocol in order to attempt to accommodate, as appropriate, the patient's continued participation in the protocol. The benefits and risks of the particular drug while the patient is at this hospital are evaluated by the attending physician for continued use. In the event that the patient is to be admitted, the Chairman of the P&T Committee and Hospital Administrator must be consulted and give approval to accept the patient. All staff involved in the care of the patient must receive information regarding the proper handling of the drug as well as any potential problems, including interactions, adverse effects, etc.

An informed consent form must be signed by the family and/or patient before any investigational drug is administered as part of a clinical research trial to a patient of the Hospital.

The Director of Pharmacy must be notified of the intended use of the investigational agent and shall be responsible for ensuring the storage, dispensing, labeling, and distribution of the investigational agent occurs according to all applicable medication use policies and procedures.
MEDICATION MANAGEMENT EVALUATION

Policy:

• The Pharmacy and Therapeutics Committee, acting on behalf of the medical staff, shall implement a Medication Management Evaluation program to provide a system to ensure medication use within the hospital is conducted in a safe and optimal manner. The Medication Management Evaluation program will require the routine evaluation of literature for new technologies and best practices that have been demonstrated to enhance safety in other hospitals. These best practices and new technologies will be evaluated for implementation to improve the medication management system. The Medication Management Evaluation program will identify risk points (including medication errors and adverse drug reactions) and identify areas to improve patient safety, as well as the overall use of medications throughout the hospital. The Medication Safety Committee may serve a collaborative role with the Pharmacy and Therapeutics Committee on these processes.

• For the purposes of this program the definition of medication includes:
  • Prescription medications
  • Sample medications
  • Herbal remedies
  • Vitamins
  • Nutraceuticals (substances not controlled by the FDA, not proven beneficial by authoritative sources, however the public commonly uses. For example, Black Cohash or Saw Palmetto.)
  • Over-the-counter drugs
  • Vaccines
  • Diagnostic and contrast agents
  • Radioactive medications
  • Respiratory therapy treatments
  • Parenteral nutrition
  • Blood derivatives
  • Intravenous solutions (plain, with electrolytes and/or other drugs)
  • Any product designated by the FDA as a drug

• The Pharmacy and Therapeutics Committee will maintain oversight for the Medication Management Evaluation program. The program is based on the principles of performance improvement, with a focus on identification and measurement of processes and activities that are high-volume, high-risk, problem-prone and patient safety related. The program includes data collection and measurement of medication management processes, identification of opportunities or areas of improvements, the testing of incremental improvements and the recommendation of improvements to the hospital's leaders. The main goal of improving the performance of medication management processes is to continuously improve patient health outcomes and reduce the occurrence of medication related errors and medication related adverse patient outcomes, including adverse drug reactions. The following
essential processes will be conducted to adequately assess and evaluate how medication is managed throughout the hospital.

- Process Design
- Performance Measurement
- Performance Assessment
- Performance Improvement

The Director of Pharmacy Services is responsible for reporting medication management processes to the Pharmacy and Therapeutics Committee, whose members in turn are responsible for assessing, monitoring and evaluating the processes and outcomes of the medication management throughout the hospital.

Procedure:

- The Pharmacy and Therapeutics Committee will collaborate and work together as a team with the Director of Pharmacy Services, and other designated members of the hospital, to develop, implement and evaluate the hospital-wide Medication Management Evaluation program. As appropriate to the setting, individuals involved in the system of medication management include licensed independent practitioners; healthcare professionals and staff involved in medication management processes.

  - Assessment and Evaluation Process: The following core medication management processes carried out by the hospital will be measured, assessed and evaluated:
    - Selection and procurement
    - Storage
    - Ordering and transcribing
    - Preparing and dispensing-use of automation
    - Administration
    - Monitoring the effects and side effects on patients
  - Over time, data will be collected on all of the above processes.

- Pharmacy Services will provide fundamental functions as well as key oversight responsibilities and activities in the system of medication management. Pharmacy Services shall perform the following functions and activities:
  - Selection and procurement of medications
  - Storage of medications
  - Maintenance of adequate medication inventory
  - Oversight of ordering and transcribing processes
  - Preparation of medications
• Medication dispensing
• Direct and indirect scheduled medication security and control
• Drug floor stock distribution
• Drug utilization monitoring and evaluation
• Provision of drug information to the hospital's staff
• Patient/family/staff counseling and education
• Provision of formal and informal inservice to the nursing and other staff licensed to administer medications
• Provision of IV additive service
• Clinical dosing of specific medications (i.e., aminoglycosides)

Pharmacy Services will be responsible to monitor the outcomes of its important functions and activities through internal performance improvement activities through investigation, data collection and monitoring of the internal processes conducted within, or by, the Pharmacy and its personnel. External performance improvement activities related to medication management will be monitored by Pharmacy Services through data collection from a wide variety of sources including, but not limited to, medication error reports (which include real and potential errors), and adverse drug reaction reports.

Pharmacy Services will collect data systematically for improvement priorities and continuing measurement. The process of data collection activities will be (when appropriate and as often as possible) collaborative and interdisciplinary in nature.

To adequately monitor and evaluate the medication management system in place within the hospital Pharmacy Services will collect data on the following:

• Processes and outcomes
• Medication errors (real and potential)
• Adverse drug reactions
• High-risk, high-volume and problem-prone processes
• Patients needs, expectations and department specific patient satisfaction questionnaires and/or surveys
• Infection control activities
• Patient safety reports
• Current literature for new technologies and best practices
• Risk management issues and findings

Performance Measures:

• Administration of medication is of high-risk and therapeutic benefit to the patient. Medication management processes will be measured on an ongoing basis. The following are performance
measures or categories of measures for which data will be collected, aggregated, reviewed and analyzed in an effort to identify risk points and areas to improve patient safety. The list is not exhaustive and may be revised in accordance with data collected, which may indicate the benefit of inclusion or exclusion of a performance measure from the monitoring and evaluation cycle. Measures shall include, but may not be limited to:

- Medication errors - wrong drug, dosage, time, route or rate of administration, wrong patient, omission, duplication or administration without an order, adverse reaction to medication (includes potential errors or "near misses")
- Medication order filled incorrectly
- Medication order prepared incorrectly
- Controlled substance missing and/or incorrect count
- Occurrences that have an adverse result on a patient
- Equipment breakage/failure that has an adverse result on a patient
- Equipment not available
- Security incident
- Expired, recalled or otherwise unusable drug dispensed
- Formulary management
- Labeling of drugs
- Education of patients and family
- Drug recall measures
- Management of Human Resources (i.e., licensure requirements and entry level qualifications)
- Patient outcomes; long and short range continuing education
- Technical quality control activities
- Adverse drug reactions

Drug Usage Evaluation is an important component of the Medication Management Evaluation program. The Pharmacy and Therapeutics Committee, acting on behalf of the medical staff shall implement as a component of the overall Medication Management Evaluation program a Drug Usage Evaluation program to ensure the safe, appropriate and efficacious use of medications throughout the hospital. Drug usage will be monitored in a systematic and continuous manner. The Pharmacy and Therapeutics Committee will determine the specific medications to be evaluated as well as the criteria to be applied. Based on the findings of the Drug Usage Evaluation Program, the Pharmacy and Therapeutics Committee will forward recommendations to the medical staff to correct or improve medication use.
The Drug Usage Evaluation will be presented to the Pharmacy and Therapeutics Committee

Priorities for the selection of medications for evaluation shall be based on one (1) or more of the following factors:

- The number of patients affected by the medication use (i.e., frequency of medication use)
- The significance, including degree of risk, to individual patients

- The degree to which use of the medication is known or suspected to be problem-prone
- Ability to improve the outcome of a specific disease for which medication is an integral part of the treatment

- Criteria for evaluation will be developed by Pharmacy Services, in conjunction with the medical staff, based on objective measures that reflect the appropriate use of the medication as determined by community medical standards, current literature and best practices. The evaluation shall focus on processes that measure:
  - Prescribing or ordering of medications
  - Transcribing of medications
  - Preparing and dispensing
  - Administration
  - Monitoring the medications' effects on patients

- The Pharmacy and Therapeutics Committee prior to an evaluation being performed shall approve criteria for evaluation.

- Pharmacy Services, in conjunction with the medical staff, will conduct the evaluations, obtaining quantitative data and present a written report of findings to the Pharmacy and Therapeutics Committee on a quarterly basis. Reports shall include criteria, findings, causes/conclusions and recommendations.

- The Pharmacy and Therapeutics Committee will determine actions to be recommended to the medical staff based on an analysis of:
  - Thresholds or control limits exceeded
  - Undesired patterns or trends
  - Opportunities to improve performance or minimize adverse reactions

- To adequately address the amount of medications that may prove beneficial for drug usage evaluation, priorities for ongoing assessment shall be developed. These priorities will be based upon the following:
  - The number of patients taking a medication
  - The balancing of risk with therapeutic potential
  - Medications known or suspected to be problem-prone
• Therapeutic effectiveness, (i.e., use of antibiotics to treat pneumonia)

• The Pharmacy and Therapeutics Committee shall determine if, and when, a medication evaluation requires discontinuation or needs to be continued as a:
  - Full evaluation
  - Limited evaluation

• Based on the findings of the Drug Usage Evaluation Program, the Pharmacy and Therapeutics Committee will forward recommendations to the medical staff to correct or improve medication use.

• The performance assessment process conducted for evaluation of the medication management program, as a whole shall be systematic, interdisciplinary and interdepartmental. Pharmacy Services will use a systematic process to assess collected data. Other disciplines will collect data related to medication management processes conducted within their department. The assessment process will include statistical quality control techniques as needed. Data assessment shall begin with a clear understanding of the medication management processes under review. The framework for systematic assessment shall include the multidisciplinary analysis of data to answer questions about the processes and outcomes that are being monitored throughout the hospital. The following issues shall be assessed and evaluated:
  - Current level of performance
  - Stability of current processes
  - Identification of areas that could be improved
  - Identification of improvement priorities
  - Effectiveness of strategies implemented to improve performance
  - Specifications for new or redesigned processes determined and met

• An interdisciplinary approach will be made to make comparisons of processes and outcomes over time. The data will be compared and reference databases utilized as needed. Priorities for improvement will be assessed. Improvement activities will be implemented based upon assessment conclusions. Pharmacy Services, as well as the Pharmacy and Therapeutics Committee (as appropriate), will collaborate as necessary with other disciplines throughout the hospital.

• The hospital will systematically improve the performance of its medication management system. The Pharmacy and Therapeutic Committee will assess and evaluate data provided and will determine and implement strategies to improve performance. The Pharmacy and Therapeutics Committee will implement actions that result in desired, measurable changes in processes. To achieve improvements and improve patient safety, the Pharmacy and Therapeutics Committee will participate in the following performance improvement activities:
  - Planning
  - Testing
• Assessing results and redesigning if necessary
• Implementing
• Assessing the effectiveness of implemented actions
• Reevaluation as deemed necessary to assure gains made are sustained

Practitioner-specific outcomes of medication management evaluation review will be included in the practitioner’s quality and competency profile for reappointment purposes. This includes review outcome of Drug Usage Evaluation and other clinically significant issues within the Medication Management Evaluation program as a whole.

Annual review:

• The Medication Management Evaluation program will be assessed and measured annually for its effectiveness and consistency within the improving hospital performance framework in place within the facility. If the identified improvements are not realized within a defined time period, the hospital will reexamine the process within the function that is being monitored. The findings, conclusions, recommendations and actions will be communicated by the Pharmacy and Therapeutics Committee to the following:
  • Leadership Team
  • Medication Safety Committee
  • Hospital Quality and Performance Improvement Committee
  • Medical Executive Committee
  • Governing Body
Licensure and Professional Standards

Policy:

- Pharmacy Services will operate within all applicable state and federal laws, regulations and licensure requirements. In matters of professional judgment or practice standards, the American Society of Health-System Pharmacists (ASHP) and Joint Commission guidelines and recommendations will be given first consideration and priority.

- State of Arizona:

  Pharmacy services will be provided according to the regulations of the Department of Health Services for licensed acute care hospitals. These requirements will be integrated into policies and procedures wherever necessary.

  - All laws, regulations and licensure requirements of the Arizona State Board of Pharmacy will be met and followed.

    The hospital’s Pharmacy Department will have at all times a valid and current pharmacy permit issued by the Arizona Board of Pharmacy which will be posted in public view in the pharmacy department.

    All pharmacists must maintain valid and current licensure with the Arizona Board of Pharmacy according to state law and hospital policy. The license and most current renewal certificate must be posted in the pharmacy. A photocopy of the current renewal will be kept in the employee’s personnel file.

    Pharmacy Technicians must be registered with the Arizona Board of Pharmacy with the most current renewal certificate posted in the pharmacy department. Copies of the current registration will be kept in the personnel file.

    A current copy of Arizona Pharmacy Law with Rules and Regulations will be available.

Federal:

- This hospital will comply with all laws, regulations and requirements of the Drug Enforcement Administration (DEA).

  The hospital will maintain current and valid registration with DEA. The registration certificate will be posted in public view in the Pharmacy.

  All pharmacists must maintain valid and current licensure with the Arizona Board of Pharmacy according to state law and hospital policy. The license and most current renewal certificate must be posted in the pharmacy. A photocopy of the current renewal will be kept in the employee’s personnel file.

  In accordance with DEA regulations, all schedule II, III, IV (CII, CIII, CIV) drugs will be stored separately in a locked cabinet in the main Pharmacy, or in double-lock storage cabinets in ancillary areas/patient care areas. Access is restricted to license personnel or Pharmacy Technicians under the supervision of a licensed Pharmacist.

- Pharmacy Services will comply with the Conditions of Participation for the Centers for Medicare and Medicaid Services.
Practice Standards:

The following licenses must be posted and displayed in a conspicuous location in the pharmacy.

1. Arizona State Board of Pharmacy permit
2. Drug Enforcement Agency DEA, permit
3. Pharmacist certificates and current registration renewal
4. Certificates of part-time pharmacist
5. Pharmacy technician certificate of licensure and certification
6. Sales tax permits

Dispensing:

A Pharmacist will review each medication order prior to dispensing. This includes orders for medication prepared by Pharmacy Technicians. In cases when the onsite pharmacy is closed, appropriate state guidelines will be followed in regard to pharmacist review of orders written after hours.
MULTIDOSE VIALS

Policy:

The expiration date for opened multi-dose vials (MDV) will follow the United States Pharmacopeia (USP) standards, provided that there is no obvious contamination and normal precautions have been taken when drawing medication from the vial.

Procedure:

Patient Care Areas

The use of multidose vials as a floor stock item will be avoided to the extent possible. Sterility of multi-dose containers is not as easily maintained as single use containers.

Prior to use, the integrity of the stopper and vial will be checked for any obvious particulate matter.

If contamination is suspected, the vial will be discarded and a new vial will be used.

The bottle's stopper will be swabbed with alcohol before each puncture and the alcohol will be allowed to dry completely.

A new needle and syringe will be used each time medication is drawn from the vial.

Multi-dose parenteral medication vials shall be dated with expiration date and time and initialed by the user. They will be stored in an environment consistent with the manufacturer's recommendations.

MDV shall be automatically discarded after twenty eight (28) days of opening unless:

1. The manufacturer recommends a different beyond-use period after the vial is initially accessed. One such example is the MDV of Procrit (Epoetin) which the manufacturer dates as beyond-use after 21 days;

2. The vial is suspected of being contaminated (i.e., vial has not been properly stored since opening); or upon visual inspection, the contents of the vial appears to be contaminated (e.g., cloudy instead of clear).

3. The vial has not been properly stored (i.e unrefrigerated or stored in clothing pocket for a period of time)

Sterile Compounding in Pharmacy

• Multiple-dose parenteral medication vials used in sterile compounding shall be dated expiration date and time and initialed by user. They will be stored in an environment consistent with the manufacturer's recommendations.

Prior to use, the integrity of the stopper and vial will be checked for any obvious particulate matter.

• If contamination is suspected, the vial will be discarded according to procedure and a new vial will be used.

• The bottle's stopper will be swabbed with alcohol before each puncture and the alcohol will be allowed to dry completely.
PERFORMANCE IMPROVEMENT

Purpose:
The Performance Improvement Plan for Pharmacy has been established to monitor the impact of pharmacy services on patient care and to assure that professional standards for the delivery of pharmacy services and products are maintained. As part of the hospital's Performance Improvement Plan, the pharmacy and the hospital shall demonstrate a consistent endeavor to assure the provision of quality patient care to the patients at CRH by the evaluation of the medication management system for risk and areas of potentially increased safety. Pharmacy shall maintain a planned and systematic process for the monitoring and evaluation of the quality and appropriateness of patient care services and for resolving identified problems.

Policy:
The Pharmacy Department shall provide quality pharmacy services and shall strive to improve areas in which improvement is needed or possible. The Pharmacy Department will develop and employ a Performance improvement Program, which functions within the overall context of the hospital's Performance Improvement Program, to assess and regulate the quality of pharmaceutical care provided to the patients within the hospital.

Procedures:

1. The Director of Pharmacy is responsible for the Performance Improvement (PI) program of the Pharmacy. The Pharmacy PI program will be evaluated at least annually, with new indicators identified as needed. The Director of Pharmacy will keep abreast of new technology and successful practices reported in professional literature which may enhance patient safety, and will seek to implement strategies that may be appropriate for the hospital.

2. The Pharmacy PI Plan affects all practitioners and employees of the Pharmacy department in providing medication, information, or services to:
   A. Inpatients
   B. Outpatients
   C. Medical Staff
   D. Hospital Employees

3. The Pharmacy's PI program addresses five aspects of the medication use process, including:
   a. Selection and procurement of medications
   b. Medication ordering/prescribing
   c. Medication preparation, dispensing, and distribution
   d. Medication administration and/or utilization
   e. Monitoring of patient's therapeutic response

4. The Pharmacy's PI program will be ongoing, with special attention paid to problem areas.

5. Information obtained concerning any aspect of the pharmaceutical care process may be utilized to monitor certain functions for any issues or trends on a regular basis, with reports of findings, conclusions, recommendations, actions, and follow-up submitted to the P&T Committee and the hospital Performance Improvement Committee.
6. The Pharmacy Department will participate fully in criteria development, planning, data collection, and the compilation and presentation of data while maintaining an interdepartmental focus on patient care. Indicators may be developed from pharmacy-related committees such as P&T Committee, from Quality Improvement Committee, or from departmental/pharmacy staff meetings.

7. The aspects of pharmacy service covered by the PI Plan for the current year are outlined in Appendix A of this policy.

8. Data will be collected and analyzed in a scientific manner such that a sufficient number or amount of data is available to render statistically significant results. Data collection will continue until the problem is resolved. Later sample data collections may be used to monitor the continued effectiveness of actions after a problem has been resolved. Data will be reported in a way that facilitates recognition of trends. Quarterly reports will be developed to summarize monthly findings.

9. The decisions to effect an action may originate from a Quality Team, the P&T Committee, or from administrative action. The Pharmacist in Charge is responsible for coordinating and implementing any such action required by the pharmacy, in conjunction with the respective committee and/or hospital departments. Data will be collected after an action is taken to determine if the action yielded desired results.
Appendix A

Current Performance Improvement Issues/Measures

Pharmacy

1. Medication Errors
2. Adverse drug reactions
3. Pharmacy Interventions
4. QA for Pharmacy
5. Media fill testing

Hospital

6. Use of unapproved abbreviations
7. Verbal Order Read Back compliance
8. Narcotic usage/documentation
9. Medication reconciliation

Other example potential indicators:

- Proposed processes for assessment include, but are not limited to:
  - STAT medication not sent within time frames established by department
  - Controlled substance missing and/or incorrect count
  - Equipment not available
  - Security incident
  - Expired, recalled or otherwise unusable drug dispensed
  - Formulary management
  - Labeling of drugs
  - Patient/family education
  - Drug recall measures
  - Surveillance, prevention and control of infection
  - Patient/visitor/personnel safety management
  - Instrument preventive maintenance and safety assessments
  - Patient confidentiality
• Sentinel event reduction and elimination
• Patient satisfaction
• Technical quality control activities
**LOOK-ALIKE, SOUND ALIKE MEDICATION MANAGEMENT**

**Policy:**

This hospital shall maintain a list of look-alike, sound-alike drugs used in the hospital. Measures shall be implemented to prevent errors involving the interchange of these drugs.

**Procedure:**

The Department of Pharmacy Services, in conjunction with the nursing and the medical staff, will develop and maintain a list of 10 (ten) or more look-alike, sound-alike drugs used throughout the hospital. The list will be approved by the medical staff as a physician awareness issue due to the risk of potential drug interchange. The list will be reviewed every Twelve (12) months by the Pharmacy and Therapeutics Committee for revision and approval.

- Measures outlined in accompanying policies, such as the Pharmacy Services Inventory Control, Prescribing/Ordering General Practices, High Alert Medication Management and the Decreasing Drug Errors policies and procedures, will be taken to prevent medication errors related to the procurement, storage, preparation, distribution and administration of look-alike, sound-alike and high alert medications.

- The following is a list of medications known to be utilized in the community (it is likely that patients may bring these medications into the facility) and in this facility, and identified by the ISMP (Institute for Safe Medication Practices) to be at risk for erroneous interchange due to their look-alike, sound-alike nature. While not every medication on the list may require special management, as outlined in the supplemental medication policies and procedures listed above, all individuals that manage or utilize medications in any manner shall become familiar with the drugs listed below and should be aware of the potential for error due to the look-alike, sound-alike nature.
# LIST OF LOOK-ALIKE, SOUND-ALIKE MEDICATIONS

Brand names shown in *italics*: **Bold-faced are on CRH approved list of LASA medications**

<p>| Adderall  | Inderal  |  |
|-----------|----------|  |
| <strong>Alprazolam</strong> | Lorazepam |  |
| Alupent   | Atrovent |  |
| Amantadine| Ranitidine| Rimantadine |
| Amiloride | Amlodipine|  |
| Avandia   | Prandin  | Coumadin |
| Azithromycin| Erythromycin|  |
| Bupropion | Buspirone|  |
| Cafergot  | Carafate |  |
| Cardene   | Cardizem | Cardura | Codine |
| Cefaclor  | Cephalexin|  |
| Cefotan   | Cefin    |  |
| Cefotaxime| Cefutoxime|  |
| Ceftazidime| Ceftizoxime|  |
| Ceftizoxime| Ceftazidime|  |
| Cefuroxime| Deferozamine|  |
| <strong>Celebrex</strong> | <strong>Celexa</strong> | Cerebyx |
| Celexa     | Zyprexa  |  |
| Cephalexin | Cefaclor | Ciprofloxacín |
| Chlorpromazine | Chlorpropamide | Prochlorperazina |
| <strong>Clonazepam</strong> | Clonidine | Klonopin | Clorazepate |
| Codeine    | Cardene  | Iodine | Lodine |
| Coumadin   | Avandia  |  |</p>
<table>
<thead>
<tr>
<th>Cozaar</th>
<th>Zocor</th>
<th>Hyzaat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Darvon</td>
<td>Diovan</td>
<td></td>
</tr>
<tr>
<td>Diazepam</td>
<td>Ditropan</td>
<td>Lorazepam</td>
</tr>
<tr>
<td>Dicyclomine</td>
<td>Diphenhydramine</td>
<td></td>
</tr>
<tr>
<td>Diphenhydramine</td>
<td>Dicyclomine</td>
<td></td>
</tr>
<tr>
<td>Dobutamine</td>
<td>Dopamine</td>
<td></td>
</tr>
<tr>
<td>Dopamine</td>
<td>Dobutamine</td>
<td></td>
</tr>
<tr>
<td>Doxepin</td>
<td>Docycycline</td>
<td></td>
</tr>
<tr>
<td>Ephedrine</td>
<td>Epinephrine</td>
<td></td>
</tr>
<tr>
<td>Etidronate</td>
<td>Etretinate</td>
<td>Etomidate</td>
</tr>
<tr>
<td>Fentanyl Citrate</td>
<td>Sufentanil Citrate</td>
<td></td>
</tr>
<tr>
<td>Fiorinal</td>
<td>Fiorcet</td>
<td></td>
</tr>
<tr>
<td>Flomax</td>
<td>Volmax</td>
<td>Fosamax</td>
</tr>
<tr>
<td>Flurazepam</td>
<td>Temazepam</td>
<td></td>
</tr>
<tr>
<td>Glucotrol</td>
<td>Glyburide</td>
<td></td>
</tr>
<tr>
<td>Heparin</td>
<td>Hespan</td>
<td></td>
</tr>
<tr>
<td>Humalog</td>
<td>Humulin</td>
<td></td>
</tr>
<tr>
<td>Hydralazine</td>
<td>Hydroxyzine</td>
<td></td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>Morphine</td>
<td></td>
</tr>
<tr>
<td>IMDUR</td>
<td>Imuran</td>
<td>Inderal LA</td>
</tr>
<tr>
<td>Indera; Inderal LA</td>
<td>Isordil</td>
<td>Toradol</td>
</tr>
<tr>
<td>Lamiictal</td>
<td>Lomotil</td>
<td></td>
</tr>
<tr>
<td>Lanoxin</td>
<td>Lomotil</td>
<td>Lonox</td>
</tr>
<tr>
<td>Lorazepam</td>
<td>Clonazepam</td>
<td></td>
</tr>
<tr>
<td>Methotrexate</td>
<td>Metolazone</td>
<td>Metoclopramide</td>
</tr>
<tr>
<td>Metformin</td>
<td>Metronidazole</td>
<td></td>
</tr>
<tr>
<td>MiraLax</td>
<td>Mirapex</td>
<td></td>
</tr>
<tr>
<td>Nicardipine</td>
<td>Nifedipine</td>
<td>Nimodipine</td>
</tr>
<tr>
<td>OxyContin</td>
<td>Oxycodone</td>
<td>Oxybutynin</td>
</tr>
</tbody>
</table>

Original Effective Date: 1/24/2014
Reviewed/Revised: 6/2014
<table>
<thead>
<tr>
<th>Paroxetine</th>
<th>Pyridoxine</th>
<th>Paclitaxel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paxil</td>
<td>Plavix</td>
<td>Taxol</td>
</tr>
<tr>
<td>Pediapred</td>
<td>Pediazole</td>
<td></td>
</tr>
<tr>
<td>Penicillin G Potasssium</td>
<td>Penicillin G Procaine</td>
<td></td>
</tr>
<tr>
<td>Penicillin</td>
<td>Penicillamine</td>
<td></td>
</tr>
<tr>
<td>Phenobarbital</td>
<td>Pentobarbital</td>
<td></td>
</tr>
<tr>
<td>Potassium Phosphates</td>
<td>Sodium Phosphates</td>
<td></td>
</tr>
<tr>
<td>Pravochol</td>
<td>Prevacid</td>
<td>Propranolol</td>
</tr>
<tr>
<td>Premarin</td>
<td>Provera</td>
<td>Permphase</td>
</tr>
<tr>
<td>Primaxin</td>
<td>Premarin</td>
<td></td>
</tr>
<tr>
<td>Quindine</td>
<td>Quinine</td>
<td></td>
</tr>
<tr>
<td>Rifampin</td>
<td>Rifabutin</td>
<td></td>
</tr>
<tr>
<td>Risperdal</td>
<td>Reserpine</td>
<td>Risperidone</td>
</tr>
<tr>
<td>Sulfadiazine</td>
<td>Sulfasalazine</td>
<td>Sulfisoxazole</td>
</tr>
<tr>
<td>Tramadol</td>
<td>Trazodone</td>
<td></td>
</tr>
<tr>
<td>Tegretol</td>
<td>Toradol</td>
<td></td>
</tr>
<tr>
<td>Xanax</td>
<td>Zantac</td>
<td>Zyrtec</td>
</tr>
<tr>
<td>Zocor</td>
<td>Zoloft</td>
<td>Cozaar</td>
</tr>
<tr>
<td>Zofran</td>
<td>Zantac</td>
<td>Zosyn</td>
</tr>
<tr>
<td>Zyprexa</td>
<td></td>
<td>Zyrtec</td>
</tr>
</tbody>
</table>

**Note:** The medication names listed may not sound alike as they are read or spoken aloud; however, when handwritten or communicated verbally, these names have a high potential for causing a sound-alike erroneous interchange.

**Reference:** [www.ismp.org](http://www.ismp.org)
Policy

This hospital will develop, implement and maintain policies and procedures to support prescribing and ordering of drugs which ensure the safe, appropriate and legal use of drugs.

- It is the policy of this hospital that all orders for medical treatment and medications shall be prescribed only by independent licensed practitioners authorized or licensed to prescribe by this State. The prescriber must be assigned clinical privileges by or be an approved member of the medical staff of this hospital.

- Only members of the medical staff duly registered with the Federal Drug Enforcement Administration (DEA and holding a valid and current DEA registration number) may prescribe controlled drugs. Current DEA registration numbers will be available in Pharmacy Services,

- Post-graduate, non-licensed physicians in authorized training programs within the hospital may prescribe controlled drugs for use by patients within the hospital, if medication orders are cosigned by the supervising physician.

- All orders shall be entered into the patient's chart via the electronic order entry system, EmPower. All orders for medications shall include the date, time and signature of the provider, the name of the drug, the dosage, route of administration, and frequency of administration.

- Orders for medications should be entered by the prescriber. Verbal orders are allowed under special circumstances when the prescriber is not readily available to enter an order and patient care would be compromised. Verbal orders are not to be used as a convenience for the prescriber when he/she is physically present.

- There must be a documented diagnosis, condition, or indication for use for each medication ordered. Medications should be ordered via the electronic order entry system, EmPower, on all patients.

Procedure:

- All orders for medications and treatments must be legible. The prescriber will be contacted for clarification of illegible orders. Illegible orders will be recorded for performance improvement activities.

- Abbreviation: Medication orders shall contain only abbreviations and symbols that have been approved by the medical staff. A list of these abbreviations will be included with the printed formulary. Medication orders shall NOT contain abbreviations and symbols included on the "Unacceptable Abbreviation List", The medical staff will approve this list. See also "Unacceptable Abbreviation List" policy and procedure.

Definitions: When used within medication orders:

- A "Hold" order will be interpreted as a discontinue order. An exception to discontinuing a "hold" medication order is when specific measurable "hold" parameters are written with the order, For example, a nurse may hold a dose of an antihypertensive if the order states to hold the medication if systolic blood pressure falls below 100 mm/Hg,”

- "Stat" means administer now, or as soon as possible. If patient’s clinical status demands, may override prior to review by pharmacist. If dose is delayed, contact prescriber.

- “Now” means Administer within 60 minutes. If patient’s clinical status demands, may override prior to review by pharmacist.
• **Automatic Stop orders:** See specific policy

• **Generic Substitution:** See Generic Substitution policy. A physician may elect to not allow generic substitution by stating so in writing on the initial order.

• **Medication Administration:**

• Medications for which a one or two hours interval of time since the prior dose does not significantly change the medication’s therapeutic effect or otherwise cause harm shall be considered non-time critical scheduled medications.

• Time-critical scheduled medications are those for which an early or late administration of greater than thirty minutes (+/- 30 minutes) might cause harm or have significant, negative impact on the intended therapeutic or pharmacological effect.

• The timing of medication administration, including how the medication is scheduled for intended administration and the actual time of administration shall be based on the nature of the medication and its clinical application.

• Scheduled dosing times shall be based on a predetermined set of “standard administration times” (e.g., 0900 for medications ordered once daily, 0900 and 2100 for medications ordered twice daily).

• Medications not eligible for scheduled dosing times shall require exact or precise timing of administration.

• The target administration time window for medications is as follows:

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Window</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Time Critical</td>
<td>+/- 2 hours from scheduled time</td>
</tr>
<tr>
<td>Medications scheduled for daily, every week or once monthly administration</td>
<td></td>
</tr>
<tr>
<td>Medications scheduled more frequently than daily, but less than every 4 hrs (e.g., every 12 hrs, every 8 hrs, every 6 hrs)</td>
<td>+/- 1 hour from scheduled time</td>
</tr>
<tr>
<td>Time Critical</td>
<td>+/- 30 minutes from scheduled time</td>
</tr>
<tr>
<td>Medications scheduled every 4 hrs or more frequently (e.g., every 4 hrs, every 2 hrs, every hour AND as noted in table below)</td>
<td></td>
</tr>
</tbody>
</table>

• Time-critical drugs with 30 minute target administration times

<table>
<thead>
<tr>
<th>Medication</th>
<th>Rationale for +/- 30 minutes target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduled pain medications</td>
<td>Need to maintain adequate pain control</td>
</tr>
<tr>
<td>Scheduled transplant immunosuppressants</td>
<td>Need to maintain adequate serum concentrations to prevent organ rejection</td>
</tr>
<tr>
<td>Therapeutic doses of enoxaparin (Lovenox)</td>
<td>Need to maintain adequate serum concentrations</td>
</tr>
<tr>
<td>Oral tetracyclines and oral quinolone antibiotics</td>
<td>These medications are timed apart from other medications (containing calcium, iron, magnesium, aluminum) that might interfere with absorption.</td>
</tr>
<tr>
<td>Valproic acid (Depakote), carbamazepine (Tegretol), Lithium, phenytoin (Dilantin)</td>
<td>These medications often have serum concentration levels scheduled to be drawn 12 hours post-dose.</td>
</tr>
<tr>
<td>Chronic, re-scheduled short-action opioids</td>
<td>To avoid break-through pain</td>
</tr>
</tbody>
</table>
• Metric: Medication orders shall be written in metric notation only and shall avoid the use of leading decimals (when a leading zero is omitted) or a trailing zero.

• PRN Orders: Orders for "PRN" or "as needed" medications shall specify the "as needed" indication(s) when with multiple indications exist for that medication, (e.g. Tylenol may be used for fever, headache or pain) and shall be specific for dose and dosage frequency. A PRN order will be considered incomplete if the indication is missing, unless the medication has a single indication, e.g. when Zofran is ordered it is understood to be "as needed" for nausea/vomiting.

• Range Orders: See specific policy on range orders

• Renewal orders: This term refers to medication or treatment orders containing words such as "renew", "repeat", or "continue". These types of orders are not acceptable for orders in this hospital. All orders that are to be resumed or continued shall be rewritten in their entirety by the prescribing licensed independent practitioner (LIP) or his/her agent. The LIP must sign all orders.

• All orders for treatment or medications for discharge must be rewritten in their entirety by the prescribing LIP or his/her agent. The LIP must sign all orders or prescriptions.

• Standard Administration Times: Unless otherwise specified, doses will be administered at the following times.

DAILY ............... 0900

BID .................. 0900  2100

TID .................. 0900  1500  2100

QID .................. 0900  1300  1700  2100

EVERY 2H...... EVEN HOURS

EVERY 3H...... 0000  0300  0600  0900  1200  1500  1800  2100

EVERY 4H...... 0900  1300  1700  2100  0100  0500

EVERY 6H...... 0900  1500  2100  0300

EVERY 8H...... 0900  1700  2300

EVERY 12H.... 0900  2100

AC................. 0700  1100  1600

PC................. 0900  1300  1800

HS............... 2100

WITH MEALS  0800  1200  1700

WARFARIN....1700

AC&HS......... 0730  1130  1630  2100
Medications ordered to be given for specified time intervals (e.g. every 6 or 8 hours) and regardless of the initial dose time, shall be adjusted to standard administration times as soon as possible. Administration times will not be adjusted to standard times if the prescriber specifies in writing that this will not be acceptable. See also "Prescribing/Ordering General Practices".

**Standing or Preprinted orders**: This term refers to a group of orders commonly applied to all or nearly all patients in a similar category and when the drugs and treatment orders are generally the accepted medical therapies for the patients in that category. Standing/Preprinted orders are written documents, containing medical directives for the provision of patient care in selected, predefined clinical situations. The medical, pharmacy, nursing and risk management staff in this hospital shall approve all standing orders and preprinted order sets. Standing orders will be individualized to the needs of a specific patient. Standing orders may contain orders for the dispensing, administration and monitoring of medication effects on patients.

**Therapeutic Substitution**: In limited, low-risk, high-volume cases certain over-the-counter classes of drugs or products may be substituted for therapeutically equivalent drugs or products. Examples of such items are enteral formula, liquid antacids and multivitamins. The medical staff via the Pharmacy and Therapeutics Committee shall authorize such substitution and shall make the medical and nursing staff aware by written and verbal communication. A list of drug categories approved for therapeutic substitution will be included in the printed formulary and other publications.

**Time/Date**: All medication orders shall include the time and date written.

**Transfer Orders**: All existing orders for patients shall be canceled when the patient is transferred to a higher or lower level of nursing care or the operating room. The physician shall rewrite all patient orders at the time of transfer.

**Verbal, Telephone, Written Orders**: See "Verbal and Written Orders - General" policy.

There must be a documented diagnosis, condition or indication in the patient's medical record for each medication ordered by the licensed independent practitioner.

All medication orders shall be complete. To be considered "complete", all medication orders will include the name of the drug, the dosage/strength, the quantity or duration (if appropriate), the route and frequency of administration, the reason the drug is ordered/indications for usage (if appropriate) and the time and date the order is written. The patient's name will be documented on the order sheet or written on an outpatient prescription sheet.

Before an order is written, there must be documentation of the patient's age, weight and any known allergies in the patient's electronic medical record. The prescriber must obtain these facts and document them.

**Medication-Related Devices**: A "medication-related device" is used to deliver medication to the patient (e.g. respiratory nebulizer). The medication-related device is necessary for the patient to receive the medication as it has been ordered. The licensed independent practitioner will specifically order all medication-related devices. For example, "___________________________________________ mg of albuterol via handheld nebulizer". It would not be necessary to order a specific IV pump for IV infusion.

**REFERENCES**

Joint Commission Standard, 2012: MM.05.01.11 EP 3


Original Effective Date: 1/24/2014
Reviewed/Revised: 6/2014 166
ABBREVIATIONS NOT APPROVED FOR USE

Policy:

Only abbreviations and symbols approved by the medical staff shall be used at this hospital to assure the highest quality of patient care and to prevent medical/medications errors. However, in the interest of minimizing errors, the general use of abbreviations is discouraged. Abbreviations and symbols included in this hospital's Do Not Use or Unacceptable Abbreviation list will not be used when ordering/prescribing or transcribing.

Procedure:

• A list of unapproved abbreviations and chemical symbols will be readily available to all staff members who are authorized to make entries into the medical record and to all those who interpret those entries.

• Each practitioner who prescribes medications must clearly state the administrative times or the time interval between doses.

• The use of "PRN" when used within medication orders must be qualified when the PRN medication has more than one indication for use. (e.g., "every 4 hours prn for headache" instead of "every 4 hours prn").

• All orders and all medication documentation (handwritten or preprinted) within this hospital will include only those abbreviations from the medical staff approved list of abbreviations and will not include any unapproved/unacceptable abbreviation or symbol.

• All personnel and medical staff members will follow the approved abbreviation list and will familiarize themselves with the list of unacceptable abbreviations. The unacceptable list includes those abbreviations and symbols that are not to be utilized in documentation.

• Unacceptable Abbreviation And Symbol List

  • The following abbreviations and symbols will not be used when ordering/prescribing or transcribing:

    Note:

    JCAHO recommended unacceptable abbreviations. The JCAHO recommends a

    "do not use" list of a minimum of six (6) items.

    ** Institute of Safe Medication Practices (ISMP) list of dangerous abbreviations relating to medication use. The ISMP recommends these abbreviations should be explicitly prohibited.
<table>
<thead>
<tr>
<th>Unacceptable Abbreviation/Symbol</th>
<th>Note</th>
<th>Why this is not to be used</th>
<th>What is acceptable practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decimal point preceding dose without preceding zero - example: .5 mg</td>
<td>*, **</td>
<td>Can be mistakenly read as multitudes of the intended amount without notice of the decimal</td>
<td>Include the preceding zero (0) before a decimal point when the dose is less than a whole unit example: 0.5 mg</td>
</tr>
<tr>
<td>Trailing or terminal zero after decimal point - example: 3.0 mg</td>
<td>*, **</td>
<td>Can be mistakenly read as multitudes of the intended amount without notice of the decimal point</td>
<td>Do not use trailing or terminal zeros. Write doses as whole numbers example: 3 mg</td>
</tr>
<tr>
<td>IU</td>
<td>*, **</td>
<td>Can be mistaken for intravenous or 10 (ten)</td>
<td>Write out the words &quot;international units&quot;</td>
</tr>
<tr>
<td>q.d. or QD every day</td>
<td>*, **</td>
<td>Can be mistaken for q.i.d.</td>
<td>Write out the word &quot;daily&quot; or &quot;every day&quot;</td>
</tr>
<tr>
<td>q.o.d. or QOD every other day</td>
<td>*, **</td>
<td>Can be mistaken for daily or four times daily</td>
<td>Write out the phrase &quot;every other day&quot;</td>
</tr>
<tr>
<td>MS, MSO4, MgSO4</td>
<td>**</td>
<td>Can be mistaken for either Morphine or Magnesium sulfate</td>
<td>Write out the medication: Morphine or Magnesium</td>
</tr>
<tr>
<td>U or u</td>
<td>*, **</td>
<td>Frequently mistaken for the number zero or the number four</td>
<td>Write out the word &quot;unit&quot;</td>
</tr>
</tbody>
</table>

The following Drug Abbreviations are not to be used:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
<th>Why not to be used</th>
<th>Acceptable Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>AZT</td>
<td>Zidovudine (Retrovir)</td>
<td>**</td>
<td>Write out the complete name of the drug</td>
</tr>
<tr>
<td>CPZ</td>
<td>Prochlorperazine (Compazine)</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td>HCT</td>
<td>Hydrocortisone</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td>HCTZ</td>
<td>Hydrochlorothiazide</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td>MgSO4</td>
<td>Magnesium sulfate</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td>MSO4</td>
<td>Morphine sulfate</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td>Morphine sulfate</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td>MTX</td>
<td>Methotrexate</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td>TAC</td>
<td>Triamcinolone</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td>ZnSO4</td>
<td>Zinc sulfate</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td>Do not shorten drug names - example: &quot;Nitro drip&quot;</td>
<td>Can be mistaken for other drug names, such as - &quot;Nitro&quot; drip can mean nitroglycerin or sodium nitroprusside</td>
<td>Write out the complete name of the drug</td>
<td></td>
</tr>
</tbody>
</table>

Other potentially problematic abbreviations to avoid, but not specifically prohibited at CRH:

Original Effective Date: 1/24/2014
Reviewed/Revised: 6/2014
<table>
<thead>
<tr>
<th>Abbreviations/Symbols to Avoid</th>
<th>Note</th>
<th>Why, this is not to be used</th>
<th>What is preferred practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; and &lt;</td>
<td>**</td>
<td>Can be misinterpreted to mean the opposite of what is intended</td>
<td>Write out the terms &quot;greater than&quot; or &quot;less than&quot;</td>
</tr>
<tr>
<td>A.D., A.S., A.U.</td>
<td><em>,</em>*</td>
<td>Can be mistaken for each other or for O.D., 0.S., O.U.</td>
<td>Write out the term &quot;left ear&quot;, &quot;right ear&quot; or &quot;both ears&quot;</td>
</tr>
<tr>
<td>Apothecary symbol for the word dram</td>
<td>**</td>
<td>Can be mistaken for the number three (3)</td>
<td>Use the metric system instead of this apothecary symbol</td>
</tr>
<tr>
<td>Apothecary symbols for the 1 word minim</td>
<td>**</td>
<td>Can be mistaken for the abbreviation mL</td>
<td>Use the metric system instead of this apothecary symbol</td>
</tr>
<tr>
<td>cc</td>
<td><em>,</em>*</td>
<td>Can be mistaken for units (with the cc looking like a &quot;u&quot;)</td>
<td>Use the term mL or write out the term &quot;cubic centimeters&quot;</td>
</tr>
<tr>
<td>D/C</td>
<td><em>,</em>*</td>
<td>Can be interchanged to mean discontinue or discharge</td>
<td>Write out your intent, either &quot;discontinue&quot; and the name of the drug or &quot;discharge the patient&quot;</td>
</tr>
<tr>
<td>HS or qhs</td>
<td><em>,</em>*</td>
<td>Can be mistaken for every hour or half-strength</td>
<td>Write out the word &quot;nightly&quot; or the phrase &quot;nightly at bedtime&quot;; write out &quot;half-strength&quot;</td>
</tr>
<tr>
<td>mg (for microgram)</td>
<td><em>,</em>*</td>
<td>Can be mistaken for mg (milligram), which can result in a ten-fold dosing overdose</td>
<td>Use the abbreviation &quot;mcg&quot; or write out the word &quot;microgram&quot;</td>
</tr>
<tr>
<td>O.D., 0.S., O.U.</td>
<td><em>,</em>*</td>
<td>Can be mistaken for each other or for A.D., A.S., A.U.</td>
<td>Write out the term &quot;left eye&quot;, &quot;right eye&quot; or &quot;both eyes&quot;</td>
</tr>
<tr>
<td>per os</td>
<td>**</td>
<td>The abbreviation &quot;os&quot; can be mistaken for left eye</td>
<td>Write out the term &quot;per mouth&quot;, or the word &quot;orally&quot; or use the abbreviation &quot;PO&quot;</td>
</tr>
<tr>
<td>q.o.d. or Q00 every other day</td>
<td><em>,</em>*</td>
<td>Can be mistaken for daily or four times daily</td>
<td>Write out the phrase &quot;every other day&quot;</td>
</tr>
<tr>
<td>qn</td>
<td>**</td>
<td>Can be mistaken for every hour</td>
<td>Write out the word &quot;nightly&quot;</td>
</tr>
<tr>
<td>ss</td>
<td>**</td>
<td>Can be mistaken for the number 55</td>
<td>Write out the phrase &quot;sliding scale&quot;</td>
</tr>
<tr>
<td>Sub q SC</td>
<td><em>,</em>*</td>
<td>The &quot;q&quot; can be mistaken for the term &quot;every&quot;</td>
<td>Write out the word &quot;subcutaneous&quot; or the abbreviation &quot;subcut&quot;</td>
</tr>
<tr>
<td>TIW or tiw</td>
<td><em>,</em>*</td>
<td>Can be mistaken for three times per day</td>
<td>Write out three times per week, do not use the abbreviation TIW or tiw</td>
</tr>
<tr>
<td>Use of the slash mark (/)</td>
<td>**</td>
<td>Can be mistaken for the number 1</td>
<td>Do not use a slash mark to separate doses, write out the word &quot;per&quot;</td>
</tr>
<tr>
<td>x 3 d</td>
<td>**</td>
<td>Can be mistaken for three doses</td>
<td>Write out the phrase &quot;for three days&quot;</td>
</tr>
</tbody>
</table>
VERBAL, TELEPHONE, AND WRITTEN ORDERED FOR MEDICATION

Policy:

• Telephone and verbal orders are allowed in this hospital. However, in an effort to reduce medication errors resulting from miscommunication, the use of telephone and verbal orders shall be kept to a minimum. Whenever possible and practical, medication orders shall be written directly by the prescriber into the patient's medical record or onto a prescription sheet.

• Due to the risk for medication errors associated with verbal/telephone communication of orders, it is the policy of this hospital never to allow verbal or telephone orders for the purposes of the prescriber's convenience only.

• Telephone and verbal orders for medications may be received and recorded by pharmacists and other licensed personnel lawfully authorized to administer drugs. Such orders prescribed verbally or by telephone are to be issued in the best interest of the patient and therefore, will be kept to a minimum. Telephone and verbal orders for medication may be prescribed in the following instances:
  • The prescribing practitioner has determined that the patient is in need of a medication within a specific time period and he/she is unable to physically enter the order in the patient's medical record due to his/her physical location. To delay administration of the medication would not be in the best interest of the patient's plan of care and treatment; therefore, it is necessary to expedite ordering and administration of the medication.
  • The prescribing practitioner has determined that the patient is in need of medication in an urgent or emergent situation, with verbal/telephone communication presenting the swiftest method of carrying out the order.

Procedure:

• Only orders entered or given verbally, directly or by telephone, by a qualified physician, surgeon, dentist, podiatrist or other person duly licensed or authorized to prescribe in this state and who has been approved as a member of the medical staff of this hospital, shall be dispensed and administered. All verbal/telephone orders of medication shall be immediately transcribed into the patient's medical record, if for an outpatient, onto a prescription form by a pharmacist.

• All verbal and/or telephone orders for medications shall include:
  • Date and time the order is prescribed verbally or via telephone
  • The name of the individual prescribing the drug and his/her licensure (e.g., MD., DO)
  • The generic or brand name of the drug, or both.
  • Drug dosage (strength or concentration) expressed in the metric system, except in instances where dosage must be expressed otherwise (i.e. units, etc.)
  • Administration route
  • Frequency of administration
  • Quantity and/or duration of therapy
  • Specific indications for use or any special instructions
• Age and weight of the patient, if not already known, or in clinical situations where it is necessary for dosing or monitoring—See specifics for Pediatric medication order requirements in Pediatric dosing policy.

• Known allergies, if not already documented

• Enter medical order into medical record in Empower and document the prescribing physician who gave the verbal/telephone order.

• Any abbreviation used must be approved and adopted by this hospital and medical staff. See this hospital’s approved abbreviation list. Any abbreviation used that is listed on the "Do not use” list will be clarified with the prescriber immediately and prior to the administration of the medication to the patient.

• Verbal/telephone orders for medication shall be received and recorded by a Pharmacist or a licensed nurse. This shall preclude the taking of a verbal order by a specialty technician within the scope of his/her specialty allowed by law and approved by the medical staff, which may include a Respiratory Therapist, Physical Therapist, Radiology Technician and Nuclear Medicine Technician.

• To prevent medication errors related to verbal/telephone orders, all individuals licensed and approved by this institution to receive and record these types of orders must strictly observe the following practices when performing this function. The receiver of the order must:

  Write the verbal/telephone order immediately in the patient’s medical record or onto a prescription form, if an outpatient prescription.

  Obtain all required information for medication verbal/telephone orders, as listed above.

  After writing the order down, repeat the entire order back to the prescriber, spelling the name of the drug or if the receiver does not know the spelling, requesting the prescriber to spell the drug.

  If an order is unclear, request both the brand name and the generic name of the medication. If the prescriber is unaware of either the brand name or the generic name for a medication prescribed, clarification will be obtained from the Pharmacy and both names will be recorded on the order.

  Repeat the dose, frequency and/or instructions for use in the non-abbreviated format. For example, if an order is received for BID frequency, the receiver will repeat the order to the prescriber as “to be administered twice daily, or two times per day”. The numerals in the drug strength should be emphasized (e.g. for 50 mg.: "50 milligrams" or for 15 units: one-five units).

  All verbal/telephone orders shall be written in the metric system, excluding medications/therapies that use standard units such as insulin. The word "unit" shall be written, rather than use the abbreviation "U".

The prescribing practitioner must sign the written record of the verbal/telephone order within 24 hours of giving the order.
PHARMACIST ORDER VERIFICATION

Policy:

A pharmacist shall review all physicians' drug orders for inpatients, during open Pharmacy hours, before the first dose is administered to the patient. An exception will be made for situations in which a licensed independent practitioner with appropriate clinical privileges controls prescription ordering, preparation and administration, as in emergency room, endoscopy or cardiac catheterization laboratories, surgery or during cardio-respiratory arrest. Another exception includes urgent situations when the resulting delay would harm the patient. The prescriber may also override the Pharmacist order verification, when orders are written for “stat”, or “now”. For orders initiated when the Pharmacy is closed, the onsite pharmacist will conduct a retrospective review of the order(s) as soon as the pharmacist is available or the pharmacy reopens. When questions arise about a medication order, the prescriber will be contacted for clarification. In addition, Pharmacist may access patient medical records through a secured remote access and verify orders remotely to ensure timely review of medical orders.

Procedure:

Reviewing the physician’s order:

The order will be available in Empower to Pharmacy Services.

The order will have an unverified status until verified by pharmacist in Empower, unless the medication is deemed necessary for patient’s well being, in which case the physician can override the unverified status, for first dose until pharmacy verifies order.

The pharmacist must receive the physician's order before the drug is dispensed to the patient, except in emergency situations when a verbal order is not yet in written form. The pharmacist shall review and interpret every medication order. The review shall include, but is not limited to:

- Appropriate drug, strength, route, frequency, and duration
- Appropriate indication for use
- Contraindications/allergies
- Drug-drug, drug-disease, or food-drug interactions
- Therapeutic overlap or therapy duplication
- IV compatibilities, if applicable
- Clinical laboratory values, if applicable
- Deviation of the order from established criteria for use
- Therapeutic interchange opportunities

The Pharmacist will verify the order in Empower and the status of the order will read verified.

Orders that are reviewed and have unresolved problems will be communicated to the nurse and clarified by pharmacy or nursing in a timely manner.

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The Pharmacist shall resolve any questions, problems, or uncertainties with the drug order before the drug is administered to the patient. The Pharmacist shall refer any questions about the medication order, including the interpretation of an illegible order or an unapproved abbreviation, to the prescriber.

The Pharmacist must be satisfied that each questionable medication order is acceptable. This may be accomplished through study of the patient's medical record, discussion with the prescriber or other medical, nursing, or pharmacy staff, or research of the professional references or literature. Pharmacy Services shall maintain a current drug reference library. At a minimum, Pharmacy Services shall maintain the references required by the State's Pharmacy Laws.

In the event of a conflict between the prescriber and the Pharmacist, the issue shall be escalated to the Director of Pharmacy Services. The managing Pharmacist will discuss unresolved issues with the Medical Chief of Staff. If needed, the Chief of Staff can be consulted for arbitration.

When the Pharmacist is not available onsite (after hours):

When the pharmacy services are close, a responsible nurse will provide a first review of all medication orders, as outlined in this policy; review shall include but is not limited to:

- Appropriate drug, strength, route, frequency, and duration
- Appropriate indication for use
- Contraindications/allergies
- Drug-drug, drug-disease, or food-drug interactions
- Therapeutic overlap or therapy duplication
- IV compatibilities, if applicable
- Clinical laboratory values, if applicable
- Deviation of the order from established criteria for use
- Therapeutic interchange opportunities

The nurse shall attempt to resolve any questions, problems, or uncertainties identified with the drug order. The nurse shall refer any questions about the medication order, including the interpretation of an illegible order or an unapproved abbreviation, to the ordering physician.

Nursing shall maintain a current drug reference library, which is easily accessible to the responsible nurse reviewing the drug order. The Pharmacist shall be available by pager and telephone for after-hours consultation. The reviewing nurse shall document his/her name, time of review, and if any problems observed. If there are any problems encountered during the review, the nurse shall document them, along with actions taken, and shall submit to the Pharmacist immediately upon his/her return.
SAFE MEDICATION PREPARATION AND DISPENSING

Policy: All medications shall be prepared safely and accurately.

Procedure:

• To prevent possible contamination of medications prepared by Pharmacy Services, and to prevent medication errors, the following guidelines will be followed:

  The written prescription or medication order will be legible. The Pharmacist must be able to positively identify the drug name, dose, route, frequency. And purpose of the drug before verifying and processing the order. The prescriber will be contacted for all ambiguous or questionable orders.

• While preparing medications, Pharmacy Services staff will use appropriate techniques to assure accuracy.

  • The patient's profile will be reviewed to detect dosage problems, potential contraindications, drug-drug interactions, drug-disease interactions, drug-laboratory interactions and therapeutic duplication.

  • Patient profiles shall contain prescription, over-the-counter and alternative (herbal) medications.

  • Relevant patient-specific information (i.e., allergy history, lab values, medical history, etc.) and therapy goals will be readily available to the Pharmacist.

  • The most current drug reference information will be maintained by Pharmacy Services. Outdated references will be removed from use.

  • The Pharmacist will review and resolve all clinically significant warnings generated by the Pharmacy computer system during medication order entry.

  • A four check process will be followed by all Pharmacy Services staff who enter, fill and check medication orders:

    • The electronic, written order will be compared against the product being selected from the drug list on the computer screen.

    • The electronic/written medication order will be compared against the computer’s final dispensing screen before the medication label/receipt is printed.

    • The electronic/written order will be compared to the dispensing label of the medication being filled/prepared.

    • Pharmacy Technicians will only perform medication preparation functions within the scope of their certification, training and education.

    • The Pharmacist will verify the medication order against the patient's height and weight, allergies, pertinent lab values and dosage calculations, using an appropriate references or protocols.

    • Pharmacists and technicians will prepare only one (1) medication or drug product at a time. If the medication requires a container or bag, the label will be
affixed to the container or bag before working on the next prescription. No medication containers or bags are to be left unlabeled.

- A "basket system" may be used, which will keep all of the following together throughout the preparation process: the original order, the medication container or bag with label, unit dose medication or bulk drug bottle.

- A Pharmacist will be readily accessible to Pharmacy technicians during medication preparation.

- While preparing medications, Pharmacy staff will use appropriate techniques to avoid contamination during preparation, which shall include, but are not limited to the following:

  Use of clean or sterile (aseptic) technique, as appropriate for the medication being prepared.

  Maintaining clean, uncluttered and functionally separate areas for different types of product preparation.

  Use of a laminar airflow hood or other class 100 environment in the Pharmacy for preparation of all intravenous (IV) admixtures; any sterile product made from non-sterile ingredients; or any sterile product that will not be used within 24 hours, including the compounding of parenteral, eye and ear preparations. Only personnel who have received current training in proper aseptic technique will perform these preparation processes.

  - Except in emergencies, only authorized Pharmacy Services personnel will mix sterile medications or intravenous admixtures/solutions, or compound specialty medications.

  - Pharmacy Services will compound or prepare specialty patient-specific medications, if and when necessary. Pharmacy Services may contract with specialty compounding pharmacies for these services.

  - Standard IV formulations and recipes for products compounded in this hospital, along with appropriate references, will be maintained.

  - Medications shall not be compounded, if a suitable, commercially available product exists. See also "Compounding Medications" policy and procedure.

  - Expiration dates and internal control (lot) numbers will be included on all compounded products from Pharmacy Services.

  - The physical integrity of all medications will be assessed via visual observation, before they are dispensed.

A Pharmacist will always verify all work performed by a Pharmacy Technician. Pharmacy Services will not dispense any medications to the patient without a final verification by a Pharmacist.

- Unit dose (unit-of-use) medications will be utilized to the greatest extent possible.

- High-risk medications will be stocked and stored in a way that minimizes the likelihood of a dispensing error.

- All verbal (direct or telephone) orders received by the Pharmacist will be written down immediately and then read back to the prescriber to assure accuracy. The patient's
identification will be confirmed. The Pharmacist receiving the order will also obtain the patient's appropriate clinical information (e.g., height, weight, allergies, comorbidities, etc., if not already known) that will allow for safe and accurate medication preparation and dispensing.

- The generic name of the drug will be included on the medication label dispensed to the patient. The brand name will also be printed, if the medication order was written with it.

**Pharmacy Computer System:**

- In order to optimize medication preparation and to reduce the likelihood of dispensing errors, Pharmacy Services will use a Pharmacy computer system.
  
  - The Pharmacy computer system will be used to list and compare all new medication orders/prescriptions against the patient's profile. This will enable the Pharmacist to check for potential dosage problems, contraindications, drug-drug interactions, drug-disease interactions, drug-laboratory interactions and therapeutic duplication before medications are dispensed.
  
  - The Pharmacy computer system may have the following features:
    
    - The ability to set sensitivity or significance levels for drug-drug interaction warnings in order to reduce the number of non-significant alerts.
    
    - Automatic dose range checks with alerts about potential over/under dosages.
    
    - Required fields for patient allergies, in which, prescription order entry will not be allowed until the required information has been entered into the system.
    
    - An alert identifying new drugs entered for which there is no clinical information (e.g., no height and weight necessary for proper dosing).
    
    - Special alerts identifying problematic drugs (i.e., high-alert medications; look-alike and sound-alike drug names; or medications with complicated/problematic packaging or labeling).
    
    - A format or screening mechanism to minimize the selection of the wrong drug or wrong strength (e.g., look-alike drug names will not appear on the computer screen, for possible selection, at the same time).

**Performance Improvement:**

- A performance improvement program to identify and prevent potential failures in the medication preparation process will be implemented within the Department of Pharmacy Services. The Pharmacy performance improvement projects may be assigned to designated Pharmacists or Pharmacist Technicians. These projects will assess the current medication use system for real and potential error risks and identifies potential system changes that may minimize or eliminate the risks.
  
  - Preparation and dispensing errors will be identified and reported to the Pharmacy PI designee and in turn, the Director of Pharmacy Services.

  Pharmacists will periodically perform quality control checks of the dispensing process by reviewing completed orders, cart fill, computer entries in patient medication profiles, and unit-dose packages or stock bottles replaced in inventory.
The performance improvement program and projects will be conducted on an ongoing basis with data submitted for review. The Director of Pharmacy will analyze the information monthly.

The Director of Pharmacy Services will give a quarterly report to the Pharmacy and Therapeutics Committee Quality and Safety Committee or Performance Improvement Committee.
DRUG LABELING STANDARDS

Policy:

All drug containers shall be labeled and drug labels must be clear, consistent, legible and in compliance with state and federal requirements. There shall be a standard method for appropriately and safely labeling medications dispensed to both inpatients and outpatients. Labeling requirements shall be in general compliance with the current ASHP Technical Assistance Bulletin on Single Unit and Unit Dose Packages of Drugs.

Procedure:

- Purchased unit-of-use medication labels shall include at a minimum:
  - Generic and Brand drug name
  - Dose (the amount included in the unit-of-use package)
  - Manufacturer's lot number
  - Expiration Date
  - Expiration time if medication expires in less than 24 hours
  - Name of manufacturer or repackager

- Repackaged unit-of-use medication labels shall include at a minimum:
  - Generic and Brand drug name
  - Dosage form (if special or other than oral)
  - Strength of dosage form unit (e.g. 25 mg tablet)
  - Total single dose and total number of units to be given (e.g. "Total dose = 50 mg; 2 tablets = 50 mg")
  - Special notes (i.e., "Keep refrigerated")
  - Internally assigned control number and expiration date

- Inpatient medication labels shall include at a minimum:
  - Name, date of birth, location, and hospital ID number of the patient
  - Generic drug name
  - Strength of the dosage unit (e.g. 25 mg tablet)
  - Dosage route (if special or other than oral)
  - Frequency of administration
  - Total single dose amount and total number of units to be given (e.g. "Total dose = 50 mg; 2 tablets = 50 mg")
  - Special instructions or cautionary notes (e.g. "Keep refrigerated")
• Quantity being dispensed
• Date and time prepared
• Initials of the Pharmacist who checked the medication before it was dispensed to the patient

• Intravenous admixture and parenteral nutrition labels shall include at a minimum:
  • Name, date of birth, location, and hospital ID number of the patient
  • Generic drug name
  • Name and amount of the basic solution
  • Dose (the amount of active drug(s) in the final product)
  • Diluents used
    Preparation date
    Expiration time/date
    Special storage requirements
    Infusion rate (if appropriate)
  The initials of the Pharmacist or Pharmacy Technician who made the admixture and the Pharmacist who checked the final product

• Prescriptions intended for use outside of the hospital shall be labeled to ensure complete understanding and compliance by the patient/family. These may include prescriptions for discharged patients or patients from the Emergency Room. The minimum labeling requirements in accordance with State and Federal regulations shall be met and will include:
  • Patient's name
  • Physician's name
  • Date the prescription is filled
  • Serial file prescription number
  • Generic drug name and manufacturer's name (manufacturer's name not required if Brand name is used)
• Amount of drug in the dosage form unit (e.g. 25 mg tablet)
• Directions for use (dose, frequency and conditions, if applicable)
• Any special instructions or cautionary remarks (e.g. "Keep refrigerated")
• Quantity in the container
• Expiration date (if more than 24 hours) and time (if less than 24 hours) Name, address and telephone number of the Pharmacy

• Medications prepared by nursing or medication prepared by a different individual than the one administering it shall be labeled at a minimum with:
  • Name, location, and hospital ID number of the patient
  • Generic drug name and manufacturer's name (the manufacturer's name is not required if the brand name is used)
  • Dose (the amount of active drug(s) in the final product)
  • Directions for use (e.g., dose, frequency and conditions)
  • Preparation date
  • Expiration time/date
  • Special storage requirements (e.g. "refrigerate")
  • Infusion rate (if appropriate)
  • The initials of the person who made the admixture and if appropriate, the initials of the Pharmacist who checked the final product.
UNIT DOSE DISTRIBUTION SYSTEM

• The unit dose system of drug distribution is the primary drug delivery system for this hospital. It is designed to:
  • Promote the safe and effective administration of drug therapy at a reasonable cost
  • Assist in the detection and prevention of medication errors
  • Promote effective utilization of personnel
  • Minimize drug deterioration, obsolescence, pilferage and reduce drug inventory
  • Reduce and simplify medication record keeping requirements
  • Provide greater drug control and accuracy in medication administration and record-keeping

• A 24-72 hour supply of a unit dose medication is issued to each hospital inpatient. The supply will be determined by the number of days until pharmacy services reopens.

• Oral liquids that are unavailable in unit doses may be repackaged in appropriate-sized containers, if not commercially available in smaller quantities.

PROCEDURE:

• The Pharmacists and Pharmacy Technicians make rounds to all patient care units to retrieve controlled substance records, discontinued medications and other pharmacy-related items.

• All STAT and NOW orders will be processed immediately and delivered to the appropriate patient care units as soon as possible if not available in the secured med areas

• With each new medication order, the Pharmacist will review the patient's entire medication profile for incompatibilities, potential allergic/hypersensitivity reactions, duplications in therapy, potential drug-drug and drug-food interactions, and other potential risks. A Pharmacist will review and medication order prior to dispensing. When a Pharmacist is unavailable and the supervising nurse fills the orders, a Pharmacist will review those orders. Refer to separate policy on Pharmacist Order verification.

• Only a licensed Pharmacist or authorized Pharmacy Services personnel under the direct supervision of a licensed Pharmacist shall dispense medications, make label changes or transfer medications to different containers.

• The medication nurse will only access medications from the medication cart only after a Pharmacist has verified the prescriber's order. If a Pharmacist is unavailable, a "now" or "stat" medication order(s) may be removed for administration if the medication order is reviewed by the supervising nurse

• All medications dispensed from Pharmacy Services or via the medication cart or bins shall contain a lot number or pharmacy control number to enable and facilitate drug recall tracking.

• All unused, reusable medications returned to Pharmacy Services will be restocked in the drug inventory. Any defective, contaminated, or unusable medications will be separated from the drug inventory and disposed of properly.
• Drug inventory of Pharmacy Services will be replenished daily or as needed via the Pharmacy's wholesaler purchasing system.

Medication Filling

• During the filling process, the quantity of drug required to provide enough doses until the next cart fill will be placed into the tray or cassette. A Pharmacist, intern Pharmacist, Pharmacy Technician or pharmacy technician student, may fill medication trays/cassettes.

• If a non-Pharmacist fills the trays/cassettes, a Pharmacist must check them prior to dispensing to the patient. The contents of each tray/cassette will be checked against the "cart fill list" for correct medication, strength, dosage form, quantity, duplicate therapy, labeling and packaging.

• At the time of filling, the Pharmacist will be notified of all scheduled medications that were left in the cassette/tray prior to the refill. The Pharmacist will prioritize investigation and follow up, at his/her discretion, regarding those medications that were not dispensed as ordered.
GENERAL DRUG DISTRIBUTION

Policy:
This hospital maintains a patient medication distribution system that utilizes unit-of-use packaging in order to minimize the need for multiple manipulations of a drug, which may increase the risk for medication errors.

Procedure:
• In response to a new drug order, the Pharmacist will check for drug allergies, therapeutic duplication, drug-drug and drug-food interactions, and other contraindications.
• The Pharmacy Technician may prepare the initial doses. These doses will then be checked and initialed by the Pharmacist before being sent to the patient.
• Upon receipt of the medication, the nurse will compare the prescriber's written order with the medication label and the drug. Any discrepancies between the order and the medication received must be clarified immediately, before it is administered to the patient.
• In response to a physician's order for a particular patient, Pharmacy Services will dispense enough scheduled (routine) medications to last until the next "cart-fill" delivery. As much as possible, unit-of-use packages will be dispensed. A Pharmacist will check all prepared doses before they are sent to the patient.
  • When refilling an individual patient's drug supply, the Pharmacy Technician or Pharmacist will determine any variation or exception from the standard administration schedule. The Pharmacist will be advised of any significant variation.
• Unit-of-use packaging is designed so that unused/unopened doses may be returned to inventory for reuse by another patient. If the package is intact and within the expiration period and the drug is not contaminated, returned doses will be credited to the patient and returned to the general drug inventory for reuse.
• Medications, which cannot be purchased by Pharmacy Services in unit-dose packaging, shall be repackaged before dispensing to patients.
• Pharmacy Services will attempt to utilize a consistent unit-dose packaging system. If different packaging must be used, Pharmacy Services staff will educate the appropriate nursing staff and, if necessary, the patient to proper use of the drug. This will include drug distribution methods for controlled substances.
MEDICATION ACCESS WHILE PHARMACY SERVICES ARE CLOSED

Policy:

In the absence of 24-hour pharmaceutical service, a mechanism shall be provided for obtaining medications and providing safe medication administration in the absence of a Pharmacist. Access to the pharmacy shall only be available to authorized nurses for use in obtaining urgent and necessary medications. Floor stock shall be used primarily to obtain medications when Pharmacy Services is closed. After hours, a Pharmacist shall be available on an "on-call" basis for consultation and to provide emergency medications, when other methods are inadequate.

Procedure:

• Determining the need to access the Pharmacy after hours:
  • After Pharmacy Services is closed and when a nurse receives a "stat, "now" or a new order for a medication that is not available from the dispensing cabinet she/he will inform the Nursing Supervisor on duty so the necessary medication(s) can be obtained.
  • The nurse along with the Nursing Supervisor will review the drug order to determine if an urgent or emergent need for medication administration exists. (i.e. if a delay in administration until pharmacy services resume, will pose a significant clinical risk to the patient). Only those medications determined to be urgent, emergent or if a delay in administering the first dose may cause unnecessary physical or psychological discomfort to the patient (e.g. anti-emetics or anti-nausea medications) will be obtained and administered without an immediate review of the order by a Pharmacist. In these cases, the nurse and the nurse supervisor will review the order as qualified health professionals for the appropriateness of the order. The on-call pharmacist may serve as a resource for this review. Subsequent doses should not be administered without a Pharmacist review unless an emergent need exists.

  • The Nursing Supervisor will check the dispensing systems in both Acute Care and Emergency Room for medication availability. This can be done most easily by referencing the CRH alphabetic formulary list, which indicates the location of all available medications at CRH. If the medication is determined to be available only in the pharmacy, the Nursing Supervisor will remove only that amount required for the patient until Pharmacy Services reopens.

Medications that are not on the formulary and not available, but ordered after-hours will be handled by 1) notifying the ordering physician of the medications immediate unavailability in case an available substitute will suffice. 2) If physician maintains that an unavailable medication is required, the on-call Pharmacist will need to be notified, if the medication is urgently needed.

• Nurses shall not prepare high-risk IV medications such as potassium chloride or potassium phosphate solutions from concentrated vials and will not have access to these in the pharmacy.

• Nurse Supervisor Requirements for removal of medications
  • The pharmacy key will be kept locked in a secure location and requires signature or electronic sign-out. The key is to be returned immediately after use to its designated, secure location.

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• No other person shall accompany the Nursing Supervisor into the pharmacy after hours unless a witness for preparing HIGH risk medications is needed (i.e. potassium chloride or potassium phosphate IVPB products).

• The Nursing Supervisor will have the medication order or a copy in hand when entering the Pharmacy after hours.

• The Nursing Supervisor shall sign the after-hours access logbook and fill out the appropriate required fields.

• The Nursing Supervisor will assure that the pharmacy doors are securely locked upon departure.

• Amount To Remove After-Hours:
  • Only a sufficient quantity to meet the immediate needs of the patient until the Pharmacist returns may be removed from Pharmacy Services. Immediate therapeutic needs may extend beyond a single dose, but should not exceed the amount needed until a Pharmacist is available.

  • Nurses shall not label drugs or transfer drugs from one container to another. (This is a dispensing function reserved for a Pharmacist by federal and state laws). Only unit dose or repackaged unit-of-use packages may be removed. If drugs are not prepackaged (by the manufacturer or by Pharmacy Services), the person making the withdrawal must take the entire bulk container. Doses shall be removed from the container as needed and the container shall remain at the patient care area until retrieved by Pharmacy Services staff.

• Recording The Removal:
  The person retrieving a drug from Pharmacy Services shall record the removal on the Pharmacy night log. This record shall contain written documentation of the:

  • Time and date of removal

  • Location, name and hospital ID number of the patient

  • Drug name, strength and dosage form

  • Quantity taken (amount removed)

    The reason for removing the medication before Pharmacist review, if applicable (e.g. "stat" order)

  • Full signature of person making the removal

  • The medication order, for verification by a Pharmacist will be left in the night cabinet with the Pharmacy night log along with a sample of removed Item or the empty packaging container(for refrigerated items or if only one item available).
Pharmacist Requirements for after-hours access

- A list of medications to be accessible shall be developed and approved annually by the P&T Committee.
- The Pharmacist will review all after-hours orders filled by the Nursing Supervisor when Pharmacy Services reopens. Review of medications administered without prior Pharmacist review shall be the first "task of the day" by a designated licensed Pharmacist.
- Pharmacy Services will replace medications taken from drug stock based on the completed log. Each business day, the first Pharmacist available upon reopening of Pharmacy Services will check the medication removed from the pharmacy against the physician's medication orders.
- An ongoing evaluation of access to the pharmacy will be done in order to determine which medications are routinely accessed, and the reasons for access; and to reduce after hours pharmacy access, if possible. The type of medication and the rationale for obtaining the medication without a Pharmacist's verification will be reviewed.
- Changes in the after-hours processes will be implemented to reduce pharmacy access, as appropriate.

Authorized Access to the Pharmacy:

- Access to Pharmacy Services is limited to Pharmacists and Pharmacy staff during normal Pharmacy Services operating hours. Medical staff, nursing service, administrative, housekeeping and other personnel will be authorized admission only in conjunction with their duties under the supervision of Pharmacy Services staff.

Authorized Access to the Pharmacy after-hours:

- Only a designated authorized Nursing Supervisor shall be allowed to remove medications from the pharmacy and only after normal operating hours, when a Pharmacist is unavailable onsite. To be authorized, the nurse supervisor must receive yearly orientation and pass a written competency on the proper storage, retrieval and distribution of medications. The Nursing Supervisors will have his/her signature on file in the Pharmacy, documenting completion of orientation and training.
- The pharmacy key will be kept locked in a secure location and requires signature or electronic sign-out. The key is to be returned immediately after use to its designated, secure location.

Registered Nurses authorized to enter the pharmacy may have access to high-risk IV medications such as potassium phosphate or potassium chloride and prepare IV medications from the concentrated vials. High-risk IV medication preparation shall be witnessed by a second Registered Nurse and documented in the Pharmacy Medication Log.
P.M./NIGHT MEDICATION RETRIEVAL

Authorized nursing supervisors may remove from the pharmacy overnight sufficient quantities of medication for a patient's use until the pharmacy re-opens. This is not a problem when the medication is packaged in unit-of-use.

When a medication is in a bulk container, it is impossible to completely follow the law because the law is contradictory. The Pharmacy and Therapeutics Committee decided that:

- The supervisor shall remove the appropriate number of tablets or capsules from the bulk container, place them in a zip-lock bag and label them with a label to be provided by the pharmacy.

- The completed label shall contain:
  1. Patient's name, date of birth and hospital location.
  2. Name of medication.
  4. Manufacturer.
  5. Lot number and expiration

Patient: ______________________
Location: ______________________
Medication: ______________________
Manufacturer: ______________________
Lot # ___________ EXP: ________
MEDICATION RECALLS

Policy:

Pharmacy Services shall maintain a system whereby drugs which have been recalled or discontinued by the manufacturer or FDA can be immediately identified, removed from active inventory and sequestered. The system shall include drugs dispensed to both inpatients and outpatients.

Definitions:

- Types of Recalls, by Class Designation:
  - Class I recall represents Imminent Hazard. Recall to user level.
  - Class II recall represents Potential Hazard. No listing of adverse effects. Remove from shelf, discontinue distribution. Usually not to user level.
  - Class III recall represents Probably No Hazard. Remove from shelf, discontinue distribution. Never to user level.

Procedure:

- Pharmacy Services may be notified of drug recalls verbally or in writing from the drug manufacturer, drug wholesaler, US Department of Health and Human Services or the FDA.

- A chronological file of drug recall notifications shall be maintained in the Pharmacy for at least one (1) year.

- Whenever recall or discontinuation information is received, all individuals who are involved in the ordering/prescribing, dispensing, and administration of medications (i.e., physicians, pharmacists and nurses) will be notified as soon as possible by Pharmacy Services, depending on the level of the recall.

- Immediately (within 24 hours) upon written or verbal notification of a drug recall, designated Pharmacy personnel shall review drug wholesaler purchasing invoices or computerized record to confirm if the recalled drug may have been obtained. If there is a possibility that the recalled drug may have been stocked, designated Pharmacy personnel will inspect all drug storage areas in the hospital. These areas include the main Pharmacy inventory, drug storage in patient care areas, patient medication drawers, medication refrigerators, night medication cabinets, cardiac arrest/emergency crash carts/boxes, surgery and special procedure suites. If found, all recalled drugs will be removed and sequestered.

- All repackaging records and compounding logs will be reviewed to determine if the recalled product has been repackaged or compounded. If so, all products involved will be located, removed, and disposed of appropriately.

- When medications are recalled or discontinued, patients who may have received the medication will be identified and informed of the recall or discontinuation, if necessary. A drug utilization list will be obtained from the computerized pharmacy information systems. The type of recall/class designation or the level of risk to the patient will determine the necessity of contacting the patients and their physicians. The manufacturer may state the class designation of the recall. If so, the appropriate action will be taken according to recall class designation. For example, if a Class I recall the appropriate action is to notify the prescribers and possibly, the patients who may have received the recalled drug. Pharmacy Services may not be able to determine which lots of a drug were dispensed to any particular patient, therefore direct contact with the physician is preferred.
If the patient is at high-risk of harm due to the recalled medication, Pharmacy Services personnel will notify the patient directly and provide follow-up information.

- If the drug may have been dispensed to outpatients, Pharmacy Services will determine if a review of the prescription files is necessary. The type of recall/class designation or the level of risk to the patient will determine the necessity of contacting the patients and their physicians. The manufacturer may state the class designation of the recall. If so, the appropriate action will be taken according to recall class designation. For example, if a Class I recall the appropriate action is to notify the prescribers and possibly, the patients who may have received the recalled drug. Pharmacy Services may not be able to determine which lots of a drug were dispensed to any particular patient, therefore direct contact with the physician is preferred. If the patient is at high-risk of harm due to the recalled medication, Pharmacy Services personnel will notify the patient directly and provide follow-up information.

- The recalled drugs shall be sequestered in an area labeled specially for recalled drugs. The drugs will be disposed of according to the information provided in the recall notification. A record of actions taken will be written on the recall notice/letter including, number of units and lot numbers found in inventory (e.g., "none found in inventory" shall be noted, if none found) and the date the action was taken. The person making the notation shall sign the recall notice.

- Upon completion of the recall action, the notice will be forwarded to the Director of Pharmacy Services or the designated Pharmacist. The recall notice will be filed and kept for 5 years.

- All significant recalls, (Classes I, II, III), which have been stocked by Pharmacy Services and/or removed from shelves or storage, will be reported to the P&T Committee. Those recalls not requiring product removal may be reported in as a total number of recalls. Those recalls requiring removal and disposal will be documented in the P&T minutes by product name, strength, formulation type and quantity returned. Those recalls requiring physician and/or patient notification and any further follow-up will be reported.

- The hospital's risk manager should receive all recall information.
UNUSABLE AND OUTDATED DRUGS

Policy:
All expired/outdated drugs, contaminated drugs, defective drugs, improperly stored drugs, and drugs in containers with worn, illegible or missing labels shall be returned to Pharmacy for proper disposal. These drugs shall be stored in an isolated area in the Pharmacy that has been designated for the storage of unusable, outdated drugs. The unusable drugs shall remain there until they are returned to the manufacturer or disposed of properly, directly or via a reverse distributor. Controlled drugs shall be handled according to current state and federal laws.

Definition:
An unusable drug is one that is outdated, contaminated, defective, improperly stored or in containers with worn, illegible or missing labels.

Procedure:
All drug storage areas of the hospital will be inspected for drugs that are unusable. These areas of inspections shall include emergency carts, night medication cabinets, automated dispensing machines, Anesthesia drug boxes, and other patient care unit stock areas, if applicable. The Pharmacy staff will remove all unsuitable drugs from each area. A record listing the type and amount of drug removed will be completed as each area is inspected.

• Nursing staff, and other personnel licensed to administer medications, shall notify Pharmacy Services when they have found unusable drugs. The unusable medication must be segregated in a secured, separate area until returned to pharmacy.

• Unusable medication may NOT be placed in any area reserved for Pharmacy pickup of physician's medication orders or with reusable medication being returned to Pharmacy Services.

• Home medications brought in by patients and left in Pharmacy Services storage for greater than 30 days:

  Shall be disposed of, according to Pharmacy policy, and the disposal shall be documented in a home medication log.

  Controlled substances from a patient will be disposed of by a licensed third-party, reverse distributor or shall be logged for destruction in the presence of two (2) licensed witnesses. The patient's name, the drug name and strength, the prescription number, the amount destroyed, the date of destruction and the signatures of witnesses shall be recorded on a home medication log.

• Pharmacy Services shall keep these records for three (3) years.

• Controlled substances shall be destroyed or shipped to the approved agencies for destruction, according to current state and federal laws.

  Destruction of a controlled substance will be performed in the presence of two licensed nurses or licensed pharmacy staff, and the disposal will be documented on an accountability/ administration record or recorded electronically. The same process will be used to dispose of unused, partial tablets, unused portions of single dose ampoules and easted doses of controlled substances.

  Any medications identified and returned to Pharmacy Services as "unusable", or those brought in by a patient and not claimed within 30 days after discharge, shall be either returned to the manufacturer, if applicable, or discarded in designated containers for pick up and destruction by Pharmacy staff or an approved disposal company.

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• Unusable drugs may be returned to the manufacturer for credit (directly or via reverse distributor), if applicable. The receipt of credit depends upon the manufacturer's return policies and the type of medication returned.
  
  • Medications, that the manufacturer will accept back, will be returned per the manufacturer's instructions.
  
  • Medications to be destroyed will be sequestered and placed in the designated area of the Pharmacy until removal and/or disposal.

• A record of destruction or drug removal from this facility will be kept. This record includes the name of the return/disposal company or persons disposing of the drugs; the name, strength and quantity of medications for disposal; reason for disposal; if returned for credit; and the date and time the medications were removed from the Pharmacy. An acceptable disposal company must:

  • Supply Pharmacy Services with an accounting of its medication disposal process in order to assure proper destruction of medications, and to assure the facility that medications released to the disposal company will not be diverted in any manner.
  
  • Have adequate quality control processes in place to verify that disposal is done successfully and appropriately.
  
  • Provide documentation of the company's record keeping in order assuring proper disposal and the prevention of diversion.

Pharmacy Services staff shall document unusable medications submitted for credit or disposal.
DEFECTIVE DRUGS

Policy:

• It is the policy of this hospital to provide safe and effective medication use to all patients at all times. Therefore, any medication that is suspected to be defective will not be dispensed. The medication will be destroyed or returned to the manufacturer. Pharmacy staff must stay aware and on the lookout for defective drugs. Any defective drugs must be documented and reported.

Definitions:

• A defective drug may be identified by discrepancies in color, size, order, shape, or consistency of solid or liquid preparations not indicated by manufacturer.

• A defective drug would include a dosage form with visible foreign matter.

• A defective drug may also include one with incomplete or inadequate packaging or labeling.

• A defective drug would include any drug with inadequate or excessive potency and a resulting bioinequivalence, based on an observed therapeutic response.

Procedure:

• Any suspected defective drug must be removed from all patient care areas, medication storage areas, automated dispensing machines and Pharmacy inventory. The suspected drug must be examined, inventoried, recorded, packed, returned to the manufacturer and reported to the FDA’s MedWatch health professional voluntary reporting system. This system is used to report a product problem or a serious adverse event.

• If a defective drug has been administered to a patient, the attending physician will be notified immediately and the patient will be monitored for possible drug reactions. If a serious drug reaction occurs, it will be reported to the manufacturer and FDA MedWatch, as explained below.

• The Pharmacist shall contact the drug manufacturer of the suspect drug or product to report problems and ask for instructions for disposition.

• The Pharmacist shall also report to FDA MedWatch any problems identifying problems with quality, strength, purity or presence of foreign matter, suspected contamination or tampering, color variation, broken tablets, incomplete or inadequate packaging and labeling, questionable potency, suspected bioinequivalence based on observed therapeutic response, and adverse drug reactions. To report or receive information, the Pharmacist may visit the FDA MedWatch website (www.fda.00virnedwatch). Form 3500 may be completed online. Form 3500 may also be downloaded from the website, completed, and mailed or faxed back to the FDA. The Pharmacist may also report by telephone at 800-FDA-1088. (See attached Form 3500).
DISPENSING MEDICATIONS THROUGH THE EMERGENCY DEPARTMENT

Policy:

Medications may be dispensed from this hospital's Emergency Department unit for use outside the hospital only when outside pharmacy services are not reasonably available to the patient. The type of medications and the amounts dispensed will meet the immediate needs of a patient in accordance with State and Federal rules and regulations.

Procedure:

• During regular Pharmacy Services hours, only a Pharmacist shall dispense medications intended for use outside the hospital and only under limited circumstances as described by state law.
  • After area outpatient pharmacy services are closed or not reasonably available, registered patients of the Emergency Department may receive partial quantities of prescription drugs for use outside the hospital until they are able to obtain a full quantity prescription.
  • Only medications listed in the Emergency Department take-home medication list (Rx-to-go or starter packs) shall be supplied. These are prepackaged by pharmacy or supplied by manufacturer in dispensable form and will be located in the ER med room.
  • Pharmacy Services will supply prepackaged quantities of prescription drugs and/or controlled substances, not to exceed a 72-hour supply, to the Emergency Room departments. These medications will be supplied in pre-labeled, suitable-for-dispensing containers.
  • Follow the instructions for documenting and recording the prescriptions to be dispensed on the Emergency Room dispensing log sheets and in the patient medical record.
    • All outpatient prescriptions supplied by pharmacy will be labeled with the following:
      • Name, address, and phone number of the hospital
      • Brand name or if a generic brand is dispensed, the generic name, strength, and manufacturer
      • Medication strength
      • Quantity supplied
      • Manufacturer and lot number
    • The ER Prescriber will complete the label by adding the following information:
      • Patient's name
      • Date supplied to the patient
      • Prescriber's name
      • Prescription number- sequential number system on ER dispensing log.
• The patient must receive counseling on the prescription by the authorized medical prescriber. The medication must be "dispensed to the patient" by the physician, pharmacist or licensed practical or registered nurse pursuant to Title 32-9121 of the Arizona State Board of Pharmacy rules and regulations.

• Dispensing log sheets will be reviewed monthly for completeness and permanently stored in the Pharmacy.
REPACKAGING ORAL SOLID AND LIQUID DRUGS

Policy:

Medications, which cannot be purchased in unit dose packaging, will be repackaged, when possible, before dispensing to the patients.

Procedure:

Labeling:

- The label shall include:
  - Generic name;
  - Brand name, if used;
  - Strength of dose/dosage form (or per ml for liquids);
  - Total dose of the package/total volume (for liquids);
  - Special notes;
  - Expiration date;
  - Control number

Strength shall be stated in accordance with the terminology in the American Hospital Formulary Service. The metric system will be used. Micrograms will be used through 999, the milligrams through 999, then grams; "ml" (milliliters) will be used instead of "cc" (cubic centimeters).

- Special notes such as conditions of storage (e.g., REFRIGERATE), preparation (e.g., NOT FOR INJECTION), will be included on the label.

- Labels shall not be altered in any way. If errors are discovered at any point in the process, the labels shall be destroyed and new ones produced.

Expiration Dates:

- Expiration dates will be assigned. This date will be either the last day of the twelfth month from repackaging date (30th or 31st) or the manufacturer's expiration date, whichever will be earlier.

- Unless otherwise specified in the individual drug monographs, or in the absence of stability data to the contrary, such expiration date shall not be later than (a) the expiration date on the manufacturer's container, or (b) one year from the date the drug is dispensed, whichever will be earlier. For nonsterile solid and liquid dosage forms that are packaged in single-unit and unit-dose containers, the expiration date shall be one year or less, unless stability data or the manufacturer's labeling indicates otherwise. For all types of nonsterile dosage forms, the expiration date will be one year or the time remaining of the expiration date." (USP 24, 1999)

- This will not apply to antibiotics or to drugs known to have stability problems, e.g. nitroglycerin, oral digoxin, etc.
Pharmacy Control Numbers:

- The pharmacy control number will begin with U1 and increase sequentially by number, ie U2, U3 etc.

Control Records/Logs:

- Control records of all repackaging runs shall be kept. These records shall include:
  - The name, strength, dosage form, route of administration;
  - The product's manufacturer or supplier;
  - The manufacturer's control number and expiration date;
  - The Pharmacy control number and expiration date;
  - The number of units repackaged;
  - The signature of the person doing the repackaging;
  - The signature of the pharmacist making the final check.

Repackaging Procedure:

Authorized pharmacy technicians may repackage unit dose oral solids and liquids, under the supervision of a pharmacist, who has the ultimate responsibility for verifying the accuracy of the repackaging.

- Only one drug product shall be repackaged at a time. No drug product other than the one being repackaged shall be present in the immediate packaging area. No labels other than those for the production being repackaged shall be present in the area.

Counter tops will be wiped with alcohol before and after repackaging.

Gloves shall be worn while repackaging unit dose solids and liquids, and changed with each new product.

- Hands shall be washed before putting on gloves, and after removal at the end of repackaging.
- The appropriate number of labels shall be generated, and the appropriate number of blister packs assembled.
- Only one dosage form shall be placed in each blister pack, and the labels affixed.
- Large volume syringes be used to accurately transfer liquids from bulk bottles to unit-dose bottles or vials. Oral syringes may also be used to dispense liquids. The tamper-proof lid or cap shall be affixed according to manufacturer's instructions.

Checking Procedure:

- The pharmacist shall check and verify by initialing the log that:
  - The drug in the package corresponds to the label information;
  - Each unit dose container holds one and only one dosage form;
• Each vial, bottle or oral syringe contains the correct amount by visually checking the levels in the vial or bottle and verifying the amount dispensed by the syringe used to fill the vial or bottle; or by verifying the amount in milliliters in each oral syringe.

• The labels are correct, complete, and fixed securely; and

• The control records have been accurately completed.
PRE-HOSPITAL EMERGENCY MEDICATION REPLACEMENT

Policy:

To establish procedures for the provision of replacement medications to authorized emergency prehospital personnel in compliance with Arizona State board of pharmacy and Arizona Department of Health and Human Services regulations. It is this hospital's responsibility through pharmacy services, to provide timely availability of replacement medications that are used to provide lifesaving care in this region within a controllable and accountable distribution process.

Background:

• Emergency pre-hospital drug boxes are not obtained or under the control of Cochise Regional Hospital. The provider agency is responsible for boxes issued to local emergency units and their content security. Accountability for drug boxes will be with the agency and or station/unit.

• Emergency medical services (EMS) provider agencies shall be responsible for monitoring drug expiration dates, evidence of drug deterioration, damage to containers and illegible labels.

• Generally, restocking of medications is done by and at the Provider Agency. For local units/stations who are not in reasonable proximity to their Provider Agency, medication replacement will be acceptable at this hospital under following conditions.

Procedure:

REQUIREMENTS OF EMS PERSONNEL:

Preferably, replacement medications will be issued at the hospital pharmacy during pharmacy business hours. After hours replacement will be for non-controlled medications only and through the Emergency room nursing personnel.

• Replacement medications will be issued to qualified EMT-P, and EMT-I personnel only and only upon presentation of a copy of the completed EMS-incident report for hospital records.

• Ensure that the EMS incident record is complete and contains the medications administered, emergency room physician verification of the order for controlled substances and that all remaining quantities of controlled substances (diazepam, morphine) not administered from dosage containers are documented as wasted. Waste documentation will be done on the EMS incident form and include two (2) full signatures (qualified EMT and ER nurse), the amount wasted, dated and timed.

• Item-for-item replacement will be performed for damaged, deteriorated, expired medications, medications that will expire within the month and for medications used emergently for patients.

REQUIREMENTS OF NURSING/PHARMACY

• All replacement medications will be issued to qualified EMT-P, and EMT-I personnel only and only upon presentation of a copy of the completed EMS-incident report. The EMS incident form must have documentation of the administration of the replaceable medication, date and time of
administration and signed by EMT provider. If replacing an expired or damaged medication, place a note in a plastic bag with the EMT’s name, unit of service, drug box identification number along with the exchanged medication.

- The completed EMS incident copy must be maintained for hospital records. ER nursing personnel may place in an envelope and deliver to pharmacy/pharmacy mailbox. Pharmacy services will maintain a file of EMS-incident sheets and records for all replacement medications for 7 years.

- Nursing (ER) replacement of medications will primarily be from the Medical storage cabinets. Medication (IV fluids) that are not located in the medication cabinet and have a pharmacy charge sticker (blue) will be retrieved by ER nurse and the charge sticker will be attached to the copy of the EMS incident report form. See list below of medications allowed to be replaced/exchanged.

- The ER nurse will decide if the Medication Dispensing cabinet has a sufficient stock of a replacement medication for ER department needs before issuing to EMS personnel. This decision will depend on anticipated emergency room needs until pharmacy services reopen.

- When replacing a controlled substance (at pharmacy only), the EMS incident from will be reviewed for the controlled drug order, emergency room physician verification of the order, any remaining quantity of dosage not used documented as wasted. Waste documentation will be done on EMS incident form and include two (2) full signatures (qualified EMT and ER nurse), amount wasted, date and time.

- Only the following medications are authorized for nurse replacement:

<table>
<thead>
<tr>
<th>MEDICATION</th>
<th>Minimum required for EMT box</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adenosine 6mg/2m1 pre-filled syringes</td>
<td>(30 mg)</td>
</tr>
<tr>
<td>Albuterol inhalation solution UD 2.5mg/3m1</td>
<td>(10 mg)</td>
</tr>
<tr>
<td>Aspirin 81mg (chewable)</td>
<td>(324 mg)</td>
</tr>
<tr>
<td>Atropine 1mg/10m1 prefilled syringe</td>
<td>(4 mg)</td>
</tr>
<tr>
<td>Atropine 0.4mg/ml</td>
<td>(8 mg MDVial)</td>
</tr>
<tr>
<td>Calcium Chloride 1 Gm pre-filled syringe</td>
<td>(1 Gm)</td>
</tr>
<tr>
<td>Charcoal, activated</td>
<td>(50 Gm)</td>
</tr>
<tr>
<td>Dextrose 50% 50m1 pre-filled syringe</td>
<td>(50Gm=2 syringes)</td>
</tr>
<tr>
<td>Diphenhydramine 50mg/m1 injection.</td>
<td>(50mg)</td>
</tr>
<tr>
<td>Dopamine 400mg/250m1 prefilled IVPB</td>
<td>(400mg)</td>
</tr>
<tr>
<td>Epinephrine 1:1000 (1 mg/ml amps)</td>
<td>(2 mg)</td>
</tr>
<tr>
<td>Epinephrine 1:10000 (1mg/10m1) PFSyringe</td>
<td>(5 mg)</td>
</tr>
</tbody>
</table>
Epinephrine 1:1000 (1mg/m1-30m1MDV) (30mg)
Furosemide 100mg/10m1 (100mg)
Glucagon 1mg (2mg)
Ipratropium Inhalation 0.5mg/2.5mL (1mg)
Lidocaine 2%- 100mg prefilled syringe (300mg)
Magnesium Sulfate 1 Gm prefilled syringe (5 Gms)
Methylprednisolone 125mg/2m1 injection (250mg)
Naloxone 2mg/2m1 prefilled syringe (2mg)
Nitroglycerin tablets 0.4mg (1 bottle)
Phenylephrine nasal spray 0.5% (1 bottle)
Sodium Bicarbonate 8.4% 50 mEq PF syringe (100 mEq)
Thiamine 100mg injection (100mg)
Verapamil 5mg/mi injection (10mg)
Normal Saline 1000 ml IV bag (2 liters)
Normal Saline 250m1 IV bag (1 bags)
Normal Saline 50m1 IV bag (2 bags)
Dextrose 5% in water, 250m1 IV bag (1 bag)
Lactated Ringers, 1000m1 IV bag (2 bags)

**MEDICATION**

Diazepam 10mg Inj. (20mg)
Morphine sulfate 10mg/m1 (glass amps only) (20mg)
GENERAL MEDICATION ADMINISTRATION

Policy:

To assure optimal accuracy, care, patient safety and effectiveness in the administration of all medications by all professional health care practitioners with medication administration privileges. The following policies will govern medication administration in this hospital.

PRACTITIONERS PERMITTED TO ADMINISTER MEDICATIONS

- Medications will be administered only upon the order of physicians, physician assistants, nurse practitioners or podiatrists, who are members of the medical staff, are authorized members of the house staff or have been granted clinical privileges by the medical staff to prescribe medications within their respective scopes of practice and licensing.

- Licensed professional personnel with prescribing privileges, registered nurses, licensed practical/vocational nurses, respiratory therapists and physical therapists may administer medications with the following limitations:
  
  **Registered nurses** may administer all parenteral, oral, rectal and topical medications including blood and blood products, if not specifically excluded by medical staff by-laws.

  **Licensed practical/vocational nurses** may administer all IM, subcutaneous, intradermal, rectal, topical, sublingual and oral medications, if not specially excluded by medical staff by-laws.

  If IV certified by a state approved curriculum, LPN's may administer unmedicated IV solutions, certain pre-mixed IV solutions which exclude medications that require close RN monitoring, assessment or interpretations of data or titration (heparin infusion, potassium boluses, insulin drips, cardiovascular IV medications. LPN's must be supervised by a Registered Nurse. LPN's may not give direct IV push medications.

  **Respiratory Therapists** may administer the following aerosol medications; albuterol, acetylcysteine, atropine, budesonide, cromolyn sodium, distilled water, dexamethasone, ipratropium, levalbuterol, metaproterenol, normal saline and recemic epinephrine.

  **Physical Therapists** may apply topical medication to patients. Topical medications is defined as a medication applied directly to the skin or underlying tissue. These include topical antibacterial and bacteriocidal agents, debriding agents, topical anesthetics, topical corticosteroids with or without ionophoresis, and wound dressings.

  All **Physicians** with medical staff privileges may administer medications.

  **Radiology Technicians** are allowed to administer oral barium sulfates, Fleet’s phosphor-soda, Bisacodyl tablets and diagnostic pre-mixed IV medications within their scope of practice.

  Only those persons approved by the hospital to administer intravenous therapy and cancer chemotherapy shall be allowed to do so.
• **PATIENT IDENTIFICATION**

Accurate identification of the patient will be confirmed using two patient identifiers prior to each medication administration. All practitioners will follow the procedures as outlined in the policy on Patient Identification.

• **PRESCRIBING ORDERING**

Medications are administered only when ordered by practitioners with clinical privileges as granted by the medical staff and in accordance with governmental rules and regulations and hospital policy. See Prescribing/Ordering General Practice policy.

Medications are administered in accordance with the physician orders, provided they meet prescribed nursing and pharmacy principles and procedures. Hospital policies exist to help standardize order interpretation, increase patient safety, and clarify otherwise ambiguous orders. These policies are to be familiar to and observed by all healthcare professionals who interpret and administer medications. They include:

- **Prescribing/Ordering-General Practices**
- **Medication Orders-Pharmacist Responsibilities**
- **Verbal, Telephone, Written Medication Orders**
- **Clarification of Medication Orders**
- **Use of Unapproved Abbreviations**
- **Standing Medication Orders**
- **Titrating/Tapering Medications**
- **Range Medication Orders**
- **Automatic Stop Orders**
- **Patient's Own Medications-Use and Storage**
- **Pediatric Medication Orders-General Guidelines**
- **Patient Self-Administration of Medications (Bedside Medications)**

• **TRANSCRIPTION/DOCUMENTATION**

• The electronic Medication Administration Record (eMAR)
The eMAR will serve as the primary list of medications to be administered to all inpatients. Nurses will have access to workstations on wheels (WOW) that will allow for realtime medication reconciliation of physician order. All documentation will be noted in the patient’s electronic medical record under the Intake section of Empower. All disciplines i.e. nursing, physical therapy, respiratory etc. will document administration of medication in the intake.

The nurse will compare the eMAR with all medication orders in the patient's medical record at least once every shift and prior to administering medications. Schedule medications will be administered within the approved hospital policy standard (see Prescribing/Ordering General Practices Policy) and as patient’s clinical condition demands. The physician will be notified if the scheduled medication is not given within the allotted time frame and the altered timing could adversely affect the patient. A medication incident report will also be generated.

Incident Reporting/ Medication Errors

Medication errors are considered incidents and can occur at any stage of the medication usage process: Prescribing, Transcribing, Preparing, Dispensing, Storing and Administering.

- Medication error reporting is a non-punitive duty for all healthcare providers.
- These reports may protect the healthcare worker by documenting that appropriate action, was taken following a medication error.
- Medication errors are reported to the physician to ensure appropriate action is taken for the care of the patient.
- Medication errors are reported to the Risk manager in order to identify system problems or medications and to initiate changes to minimize re-occurrence. See policy on medication errors for details on documenting medication errors and reporting procedures.

Adverse drug reactions

Adverse drug reactions will be reported immediately to the physician and require documentation on an Incident report form and in the medical record. See policy on Adverse drug reaction.

MEDICATION PREPARATION/DISPENSING

This hospital uses a unit-dose medication distribution system to supply medications for patient use. Pharmacy services is responsible for providing properly labeled medications in an as ready-to-use form as feasibly possible. See pharmacy policy on Safe Medication Preparation and Dispensing.

When nursing is required to prepare a patient medication, it should be done immediately prior to administration, especially for Intravenous administration. As much as possible, Medications are to be administered by the person preparing the dose, except when pharmacy has prepared the medication.

For all high-risk medications and pediatric doses prepared by nursing, two (2) licensed nurses will check the amount ordered and the amount prepared. Both nurses will sign and initial the MAR signifying performance of this verification process. See policy on high-risk medications for list of high-risk medications. High-risk medication lists will also be posted in the medication rooms and in the printed formulary.

MEDICATION ADMINISTRATION TO PATIENTS

These basic principles of safe medication administration will be followed by personnel administering medications at this hospital. The person administering medications will not rush through medication administration processes and will take the time to follow the steps outlined in this policy. Additional precautions
may also be followed in order to avoid potential harm to patients.

1) The person administering medications will have current and clear **allergy information**. This information must be clearly documented on the eMAR before beginning any medication administrations. Allergy information is to be compared to the ordered medications to ensure that a patient does not receive medications to which they are allergic.

2) All medications received from pharmacy or accessed from the medical cabinets must be **rechecked for accuracy**, in-date expiration and for signs of damage or deterioration. (Always remember that medications may be misfilled by pharmacy or accidentally relocated to adjacent bins by pharmacy and other users.)

3) Persons administering medications will have or obtain the following **knowledge** concerning each medication:

   - Therapeutic action
   - Possible adverse effects
   - Usual doses, usual frequencies and routes of administration
   - Maximum safe dosage
   - Any contraindications that would preclude the administration of the medication.
   - Antidote (if applicable) and its location
   - Precautions for safe use

   Updated drug information sources will be available on the unit in hardcopy form.

4) **First verification step.** In a well-lit, semi-private environment, check the medication(s) from pharmacy and those removed from medical cabinets against the patient’s eMAR to verify that the correct medications have been selected and for the correct strength and dosage form (PO, IV etc.). Pay special attention to dosages that include decimal points and read decimal placements carefully. Inspect the medication for signs of deterioration, particulate matter (if intravenous) and for valid expiration dating. Obtain second nurse verification for all high-risk medications, pediatric dosages and for medications obtained from the medical cabinet. Refer to the hospital-approved high-risk policy.

5) Take the unopened medications and the WOW to the patient’s bedside. The person administering the medications will verbally **affirm patient identity** by asking the patient to state their name and date of birth. This information will be compared to the information in the electronic medical record. If a patient cannot verbalize this information, the patients identifying armband may be used for comparison to the electronic medical record.

6) **Barcoding Verification Step.** Prior to the administration of any medications, the barcoding verification step needs to be completed. To complete this step, the provider (i.e. nurse) must scan the bar code of his/her provider badge first, then scan the patient’s identification bracelet, upon confirmation of the correct patient, scan the individual medication dose bar code. Once the medication has been scanned and verified open medications in front of the patient, verbalizing medication’s name and purpose. If a new medication is being given to a patient for the first time, the patient must be advised of its purpose and any potentially significant adverse reactions. This education will be documented in the clinical notes in the medical record. If a patient believes they are receiving an incorrect medication or dosage, the person administering the medication must stop the process, recheck all physicians’ orders and if necessary, contact the prescriber.
7) Patient's response to all first doses of new medications will be assessed every 30 minutes x 2 assessments and documented as to specific adverse effects or as "no adverse effects" noted in the intake in Empower. In the case of pain medications, assess and document patient's level of pain before and after analgesic dose(s) are administered.

8) Remain with the patient until all medications are taken or administered, oral tablets observed as swallowed. Document the administration of the medicine under intake in Empower.
Decreasing Medication Errors

POLICY

It shall be the policy of this hospital to institute a medication safety improvement program and to take a proactive approach to reducing medication errors by focusing performance improvement activities on medication use. It is recognized that errors may occur at any step of the medication use process: prescribing, ordering, dispensing, administering, or monitoring the effects of the medication.

The Institute for Safe Medication Practices has identified some common sources of errors:

- Unavailable patient information prior to dispensing or administering a drug (e.g., lab values, allergies, etc.)
- Unavailable drug information (e.g., written resources)
- Miscommunication of drug orders (e.g., similar names, improper use of zeros, inappropriate abbreviations, poor handwriting)
- Problems with labeling or packaging
- Drug standardization, storage (e.g., stocking multiple concentrations of the same drug, look-alike containers)
- Drug device use and monitoring (e.g., lack of standardization in drug delivery devices, unsafe equipment)
- Environmental stress (e.g., distractions and noise during transcription or dispensing, long work-shifts)
- Limited staff education (e.g., especially about problem-prone, high-risk drugs)
- Limited patient education

The Institute for Safe Medication Practices has also determined that a majority of medication errors resulting in death or serious injury were caused by “high alert medications”. High alert medications include, but are not limited to:

- Insulin
- Opiates and narcotics
- Injectable potassium chloride (or phosphate) concentrate
- Sodium chloride solutions above 0.9%
- Heparin
- Warfarin

This hospital has adopted the following strategies to decrease the incidence of medication errors:

- A unit dose system of medication distribution has been implemented.
- All new inpatient medication orders must be reviewed and approved by a pharmacist prior to medication administration, except in emergency situations and when a patient’s physical or psychological comfort would be compromised by a delay in obtaining pharmacist authorization, for example, for first doses of an anti-emetic or analgesic.
- Patient education on discharge medications will be available in writing and provided to the patient/family upon discharge. The Pharmacist will be available to counsel patients on complex drug therapies.
- There will be an on-call Pharmacist available 24 hours for consult.
- The Pharmacy and Therapeutics Committee has developed standardized practices for prescribing medications:
  - All drug orders must be written in the metric system. Units must be spelled out.
o Medication orders must include the name of the drug, dosage strength, route, and frequency of administration.

o A leading zero must always precede a decimal point for a dose less than one (e.g., 0.25 mg instead of .25 mg). A trailing zero is never to be used after a decimal (e.g., 2 instead of 2.0).

o The use of abbreviations shall be avoided, both for drug names (i.e., MOM) and for Latin directions for use (i.e., QD, SC). If abbreviations are used, they must be those approved by this hospital. See the Hospital-Approved Abbreviations List.

• Policy and procedures for verbal/telephone drug orders, Policy 03.3-18.

• There will be special awareness in the ordering, storage, and administration of the identified “high-risk drugs”. See policy on High-risk medications. 03.7-01.

• Pharmacists will provide information to nurses, prescribers, and other healthcare providers about potential “problem” drugs.

• Medication errors will be reported and trended via the performance improvement activities of the organization.

• Routine monitoring and application of information from error reporting programs (i.e., Institute for Safe Medication Practices, USP, and FDA) shall be done.

• A sound-alike, look-alike drug’s potential for contributing to medication errors shall be considering when determining the formulary selection of products for this hospital.

• Any medication errors contributed to by sound-alike, look-alike drugs shall be reported to the FDA.

• Similar looking products or products that are frequently confused for each other will be stored separately.

• Pharmacists will make regular rounds on all patient care units.
Storage of and Access to Concentrated Injectable Electrolytes

PURPOSE

Concentrated electrolyte solutions for injection, such as potassium chloride and potassium phosphate, may be deadly when given intravenously in concentrated form. These electrolytes are easily mistaken for other more benign agents. Therefore, the storage of concentrated, injectable electrolyte vials will be stored only in the Pharmacy in a secure area. Premixed, diluted electrolyte solutions may be stored in patient care areas throughout the hospital.

PROCEDURE

The following high-risk, concentrated electrolyte solutions shall not be stored in any area or by any method outside the main Pharmacy and will not be available for after-hours access:

- Potassium chloride vials
- Potassium phosphate vials
- Sodium phosphate vials
- Sodium Chloride vials greater than 0.9%
- Magnesium Sulfate vials

The following will only be available to authorized nurses for after-hours access:

- Sodium chloride 3% pre-mixed IV Piggybacks

The following vials or pre-filled syringes will be available for pharmacy after-hours access, in emergency crash carts, or in the medication cabinets inside secured medication rooms:

- Premixed 10 & 20 mEq potassium chloride in 100ml
- Magnesium sulfate 1 & 2 gram premixed IV Piggybacks
- Calcium chloride as pre-filled syringes
- Calcium gluconate in 10ml vials only

Concentrated solutions may only be mixed by a Pharmacist or authorized Pharmacy Technician during Pharmacy business hours, following a physician’s order for a concentrated electrolyte solution.

When Pharmacy Services is closed, nurses will not prepare high-risk, electrolyte solutions from concentrated vials. The nurse must contact the on-site, on-call Pharmacist if an electrolyte piggyback is ordered and the premixed diluted solution cannot fulfill the order.

Premixed diluted electrolyte solutions may be stored on nursing units, ER, OR, and in crash carts, and night medication cabinets in place of concentrated electrolyte vials. Concentrated electrolyte solutions will not be available in any of these areas, except in crash carts (Magnesium Sulfate and Calcium Chloride in pre-filled syringes).
Electrolyte-containing solutions and concentrations will be standardized throughout the hospital and the number of electrolyte/solution combinations will be limited. Physician orders for potassium-containing IV fluids that are not available (see Formulary list) in pre-mixed form will not be filled until a Pharmacist is available on-site. Orders for unavailable potassium-containing fluids, for example, Normal Saline w/10 mEq of KCL will need to be changed by the prescriber. Alternatives include selecting one of the available pre-mixed solutions, Normal Saline w/20mEq of KCL or to alternate between infusing plain bags of Normal Saline with Normal Saline w/20mEq of KCL. Pre-mixed K-riders of 10 & 20 mEq/100ml are also available for use.
Standing Medication Orders

POLICY

It is the policy of this hospital to allow standing pre-printed medication orders for specified patients when authorized by a person licensed to prescribe.

Standing orders are written documents (preprinted order sets) containing medical directives for the provision of patient care in selected, well-defined clinical situations. Standing orders refer to a group of orders commonly applied to all or nearly all patients in a similar category and where the drugs and treatment orders are generally the accepted medical therapies for most patients in that category.

Standing orders may also address emergency measures, which may be required in life-threatening situations to stabilize a patient’s condition or prevent more serious complications, injury, or death.

Standing orders will be considered a starting point in writing orders and shall be individualized to the needs of each patient. See also “Prescribing/Ordering General Practices” policy and procedures.

PROCEDURE

Standing orders must specify the types of medical conditions for whom the orders are intended.

Standing orders must specify the circumstances under which the medications or treatments are to be administered and be specific as to the drug, dosage, route, frequency of administration, and pm indications, as needed.

Be initially approved by the head of all departments affected or involved by the initiation of the standing order set and then by the Pharmacy and Therapeutics Committee and the Medical Executive Committee.

Reviewed annually by the Pharmacy and Therapeutics Committee and the Medical Staff.

A copy of the standing orders for a specific patient must be dated and promptly signed by the prescriber and included in the patient’s medical record.

An individual prescriber may notify the hospital in writing of his own standing orders, the use of which is subject to prior approval as described above.
Sample Medication Use – Acute Care and Emergency Room
Effective: 06/2014

POLICY

In order to effectively control drug use and comply with federal law, the storage and distribution of drug samples is not permitted within the Acute Care (inpatient) or Emergency Room Departments of this hospital. Pharmaceutical representatives shall not leave any drug samples in these areas of the hospital. The Department of Pharmacy Services will confiscate all sample medications found within the medication storage areas of these departments and discard of them appropriately.

PROCEDURE

Medication samples brought in by patients admitted to the hospital will be stored as “patients own medications” (see policy) and may not be administered to the patient.
Adopted by the Pharmacy Staff

Maryam Tavakoli
Pharmacy Director

Approved by the Board

Seth Guterman MD
Chairman of the Board

Approval Date:

Original Effective Date: 1/24/2014
Reviewed/Revised: 6/2014