#### Home Health VNA, Inc.

#### SUBJECT: MEDICATION VERIFICATION, RECONCILIATION & MANAGEMENT

**PURPOSE**: To assure that medication orders are clear and transcribed appropriately; to identify the most accurate list of medications that a patient is taking; to assure that medication therapy is safe and appropriate; to facilitate treatment of the patient by engaging the patient through medication education and self-management practices; to maintain continuity of care across care transitions and the care continuum; and minimize the occurrence of adverse events and medication errors.

#### Policy

- 1. All clinicians monitor medications and practice within their discipline-specific scope of practice which includes a comprehensive assessment of all medications that the patient is currently taking. This list must be accurate, kept current, and completely reconciled across the continuum of care.
- 2. Each patient will have an accurate and complete medication list in their medical record, including both prescribed and over-the-counter (OTC) medications and investigational medications when applicable.
- 3. Patients receiving medication will be monitored for the effectiveness, actual/potential adverse reactions, drug interactions and side effects, and response to their medications; all/any of which is to be appropriately documented and reported to the prescriber at the time of occurrence/event.
- 4. Patients will be educated on medication use, storage, and management; actual/potential adverse reactions; drug-drug and/or food-drug interactions; and the consequences of non-adherence. The clinician will utilize available resources (including EMR (Electronic Medical Record) tools, agency-developed protocols, and/or drug reference books) to identify potentially severe drug to drug interactions and request guidance from the ordering physician when these potential interactions are present in the medication list.
- 5. A physician's order is required for staff to administer medications.
- 6. A list of *"Look-Alike/Sound-Alike Medications"* (Attachment #1) commonly used by the agency will be reviewed annually. The listing will be made available to staff via the Education Website and is presented to all new clinical staff during orientation.

- 7. A list of *"Hazardous Drugs and High Risk Drug Categories"* (Attachment #2) will be reviewed annually. The listing will be made available to staff via the Education Website and is presented to all new clinical staff during orientation.
- 8. The "*Do Not Use List*" (Attachment #3) is a list of abbreviations and symbols that are dangerous because they can easily be confused with other abbreviations that can lead to serious medical mistakes. These abbreviations and symbols may not be used in any clinical documentation or communication. The listing will be made available to staff via the Education Website and is presented to all new clinical staff during orientation.
- 9. Once the initial medication reconciliation process occurs after Start of Care, patients receive a medication list which includes all prescribed medications as well as any medications that they are taking, including over the counter and herbal supplements. Over the course of care, the clinician is responsible for keeping the medication list up to date. When significant changes occur to the medication plan of care, an updated medication list is printed and provided to patients.

# Procedure

# A. Verification of Medication Orders

- 1. If the patient is being referred from a facility covered by HHF liaisons, the liaison will ensure a list of medications is faxed to the Referral Department.
- 2. The Referral Department staff collects a list of medications being taken by the patient from the referral source. This information can be obtained verbally or as part of Page 1 of the standard hospital referral form. In the event that no medication list is available, (e.g., patient/family self refers) the Referral Department will obtain the medication list from the primary care physician. If no list is available at the time of referral, it is the responsibility of the visiting clinician to verify and reconcile medications with the patient/family and physician.
- 3. The Referral Department is responsible for attempting to clarify medication orders that are incomplete, illegible, or unclear—especially when related to agency-identified high risk medications (hypoglycemics, anticoagulants, and narcotic pain medications). Any order that requires a VNA clinician to administer a medication must be clarified when the order is unclear; otherwise it is not accepted.
- 4. If previous medication orders are to be continued in a new referral, each medication must be specifically written in the new referral order; "reinstatement of previous orders" is not acceptable.
- 5. For the purposes of building a pre-admit medication list to be used by the admitting clinician as a starting point for medication reconciliation, it is appropriate for the Referral Department Registered Nurse (RN) to interchange generic/trade names when appropriate, considering the previous names used for medications on the patient's current or past medication list.

#### B. Clarification of Medication Orders

- 1. At every start of care (SOC), resumption of care (ROC), or recertification visit the clinician will perform a comprehensive assessment of all medications the patient is currently using. The comprehensive assessment is meant to clarify orders by verifying which medications the patient is currently taking and comparing them to the medication list provided at the point of referral, or in the case of a recertification, to the existing physician's medication orders. The comprehensive medication assessment includes all prescription, over-the-counter, PRN, supplemental and herbal products present in the home. The clinician will visualize all medications and note the following information:
  - a. the drug name on container
  - b. the dose on the container
  - c. the route on the container
  - d. the frequency on the container
  - e. expiration date on container
- 2. The clinician will note any discrepancies between medications ordered and medications in the home. Discrepancies include omissions, duplications, contraindications, changes, and information that is unclear.
- 3. The clarification process includes:
  - a. assessment of the patient's condition and the medication's desired/expected effect
  - b. identification of potentially serious drug-drug, drug-allergy, and drug-food interactions, therapeutic duplications, high risk medications and potentially inappropriate medications
  - c. adherence to the medication regime and reasons for non-adherence determined (e.g., literacy, complexity, side effects, financial concerns)
  - d. proper use and maintenance of drug delivery equipment and supplies
  - e. proper storage and handling of drugs and delivery systems
  - f. reason for administration of any drugs ordered "as needed" or "prn"
- 4. Clinicians perform a drug-drug and drug-allergy interaction check within the EMR at every SOC, ROC, recertification, or at any time a new medication is added to the medication list.

#### C. <u>Reconciliation of Medication Orders</u>

 The physician is contacted within 24 hours of SOC/ROC to provide a medication update and to communicate any discrepancies noted between the medication orders received upon referral to the agency and/or between the physician orders and all medications the patient has in the home. Additional concerns, such as interactions, duplications, and medication adherence, are provided at this time. This communication is documented in the patient record. The physician response is also communicated in the patient record.

- 2. For all SOCs and recertifications, the medication list is signed by the clinician as a verbal order and is part of the 485. For ROCs, the new, changed, and discontinued medications are sent as an interim order.
- 3. The medication list within the patient's EMR is kept current with additions, changes, and discontinued medications. Patient's medications are assessed at each visit for any changes. When changes in dose, route or frequency of an active medication have been ordered by the physician, these changes are documented in the EMR by discontinuing the active medication and then adding a new medication order with a start date equal to the date the new physician order was received. Under no circumstances should edits be made to existing medication orders.
- 4. All changes in medication orders during the episode of care follow the verification, clarification, and reconciliation process as previously outlined, and changes are communicated to the patient and/or caregiver as appropriate.

## D. Order Entry Standards:

- 1. Medication orders are entered using the drug database list within the EMR. Free text entries are only made when the medication is not available within the drug database.
- 2. All medications ordered by the physician will be transcribed clearly and accurately to the Plan of Care in the following format:

Drug	name of medication	
Dose	actual total dose ordered by physician	
Route	PO, IM, IV, SC, etc.	
Frequency	daily, twice daily, three times weekly, etc.	
Duration (when applicable)	over 4 hours, for 3 days, etc.	
Site	where to apply topical medications	
Indication for medication	the indication for each medication ordered should be	
	identified in the medical record	

3. If different doses of the same medication are ordered, each order must be written individually for that particular administration time. For example, bottle/prescription reads:

Tegretol 200 mg - take two tabs in a.m. and three tabs in p.m.

**The correct protocol for transcription is:** Tegretol 400 mg PO once per day in AM Tegretol 600 mg PO once per day in PM

- 4. Doses prescribed solely by volume or number of tablets require clarification (exceptions include eye/ear drops and ointments).
- 5. PRN medication orders must include the indications for use.
- 6. HOLD ORDERS for medications are accepted with the following information:
  - a. reason for hold
  - b. duration of hold
  - c. plan for follow-up as needed (e.g. lab work, change in status)
- 7. The process for entering a HOLD order:
  - a. Discontinue the medication to be put on HOLD (Exception: When applicable, referral department nurses will note the medication to be discontinued in the referral orders; the clinician is ultimately responsible to remove the order from the plan of care upon clarification and reconciliation)
  - b. Add a new order for the medication with "HOLD" within the dose field; enter START DATE and NUMBER OF DAYS TO HOLD within appropriate fields; enter REASON FOR HOLD in instructions
  - c. If known, enter a new order for the date that the medication is to resume. Use appropriate fields to enter the start date

# Note: If ALL of the above information is not available, the medication to be held must be discontinued.

- 8. AUTOMATIC STOP ORDERS are accepted with the following information: start date, duration and stop date. Start and stop dates are noted as calendar dates in the medication profile.
- 9. RANGE ORDERS are orders in which the dose or dosing interval varies over a prescribed range, depending on the situation or patient's status. These orders are accepted with the following information: Medication dose range specified or the time frame range specified. Orders will not be accepted with both dose and time frame ranges.

## Example of acceptable orders:

Tylenol 325-650 mg PO prn every 6 hours for pain OR Tylenol 650 mg PO prn every 6-8 hours for pain.

*Note:* Clinicians should consider and educate the patient regarding the dose that is acceptable based on the degree of the presenting symptom. For example: "Tylenol 325 mg PO every 8 hours PRN for mild pain AND Tylenol 650 mg PO every 8 hours for moderate pain" would provide more detail.

10. TAPERING MEDICATION ORDERS (orders in which the dose is decreased by a particular amount with each dosing interval) are accepted with the following information: each medication, dose and

dosing interval specified. Each dosing order is listed as an individual entry within the medication list. Each tapering dose order should specify the date which it is to begin.

#### Example of acceptable orders:

Prednisone 40 mg PO once per day start 05/20/2015 x 2 days Prednisone 30 mg PO once per day start 05/22/2015 x 2 days etc...

11. SLIDING SCALE INSULIN ORDERS are PRN orders in which the insulin dose is dependent on the range of the capillary blood sugar (CBS) test result. These orders are entered as individual line entries with each different dose and CBS range indicated. Frequency (BID, TID, etc...) must be identified as well as specific time of day when appropriate (BID with meals, "*at breakfast and lunch*")

*Note:* The strength of insulin should not be noted in the dose field. If it is important to note strength (e.g., if a patient is using a less common strength such as "500 units/ml") it should be entered in the instructions field.

12. STANDING ORDERS. Only nurses may accept standing orders for medications obtained under the direction of the physician. A standing order is a pre-written medication order with specific instructions to administer a medication in clearly defined circumstances as specified in the instructions.

# Note: The Standing Order for Epinephrine for anaphylaxis protocol is reviewed annually and approved by the Medical Director (refer to Anaphylaxis and First Dose Procedure).

- 13. ORDERS FOR MEDICATION-RELATED DEVICES are accepted with the following information: type of device specified, medication dose, frequency of use, mode of delivery, type of wetting agent (nebulizer use), duration of use and length of treatment.
- 14. TITRATING ORDERS (orders in which the dose is progressively increased or decreased in response to the patient's status) are accepted with the following information: specific dose adjustment with defined responses/effects. Example: Morphine Sulfate 3 mg/hour IV continuous for pain. May increase by 0.5 mg/hour every 24 hours up to 6 mg/hour if pain not relieved. When medication has been titrated, the current order must be discontinued and the new order entered (refer to section C, #8).

## E. Medication Administration by Clinicians

1. Upon receipt and confirmation of a valid physician order, HHVNA Nurses may administer the following classification of drugs:

MEDICATION	ROUTE
Adrenergic	PO, IM
Adrenocortical Steroids	PO, IM, IV

Analgesics	PO, SC, IM, IV,TOP
Antianginal	PO, SL, TOP
Anti-arthritic, Anti-gout	PO, IM
Antiarrhythmics	РО
Antibiotics/Antibacterials	PO, IM, IV, TOP
Anticholinergics	PO, SC, IM, IV
Anticoagulants	PO, SC
Anticonvulsants	PO, IM, IV
Antidepressants	PO
Antacids	PO
Antidiabetic Agents	PO. SC
Antihistamines	PO, SC, IM, IV
Antihypertensives	PO, IV
Anti-Neoplastics	PO, IM, IV, TOP
Anti-Parkinson	PO
Antipyretics	PO, PR
Anti-Psychotics	PO, IM
Antirheumatics	PO, SC, IM, IV
Bronchodilators	INH
Cardio-Glycosides	PO
Cholinergics	PO, SC
Diuretics	PO, IM, IV
Electrolytes	PO, IV
Enzymatic Debrider	ТОР
Epogen	SC
Histamine-Antagonoists	PO, IV
Hormones	PO, SC
Immunologics	SC, IV
Iron Supplements (Except Iron Dextran	PO, IV
Infusion)	
Laxatives	PO, PR
Muscle Relaxants	PO
Recombinant human platelet derived growth	TOP
factor (rhPDGF-BB)	
Sedatives	PO, IM
Stool Softeners	PO, PR
Thyroid Hormones	РО
Tranquilizers	PO, IM
Vaccines	SC, IM
Vasodilators	PO, SL
Vitamins	PO IM, IV

2. Intravenous medications are administered by nurses who have demonstrated competency in IV Medication Administration. LPNs may not insert or remove PICC lines or administer chemotherapeutic medications in Massachusetts. LPNs may not administer IV therapy through a central line or administer chemotherapeutic medications in New Hampshire.

3. Therapy Staff may only administer the following classifications of drugs:

MEDICATION	ROUTE
Analgesics	Topical
Corticosteroid and non steroidal anti-	Topical and Trancutaneous
inflammatory	
Enzymatic Debrider	Topical

- 4. Clinicians may not administer:
  - a. Desensitizing Agents (other than topical creams/ointments)
  - b. Blood/Blood Components
- 5. Nurses may administer the first dose of the following IM/SC medications:
  - a. Insulin
  - b. Vitamin B-12
  - c. Calcimar
  - d. Neupogen/Epogen
  - e. Vitamin K
  - f. Lovenox
  - g. Heparin
  - h. Antibiotics (when the drug has been administered to the patient within the past six months)
  - i. Methadone
  - j. Copaxone
  - k. Forteo
  - l. Avonex
  - m. Cimzia
  - n. Rebif
  - o. Humira
  - p. Influenza vaccine
- 6. The decision to administer the first dose of medications other than those listed will be made by the nurse in consultation with the ordering physician, Clinical Manager, and Clinical Director on a caseby-case basis. The Medical Director will be consulted when questions/concerns regarding patient safety arise.
- 7. Prior to the administration of any medication, the clinician will identify the patient using two patient identifiers and:
  - a. verify the medication is correct as ordered by the physician, based on medication order and label

- b. verify the stability of the medication by visual examination and check expiration date
- c. review purpose and contraindications for administration of the medication
- d. verify the medication is being administered at the correct time, in the prescribed dose, and in the correct route
- e. advise the patient/caregiver of routine side effects and potentially significant adverse reactions
- f. review, at a minimum, the following patient information:
  - i. Age
  - ii. Sex
  - iii. Current Medications
  - iv. Diagnoses and co-existing conditions
  - v. Relevant lab values
  - vi. Allergies and past sensitivities
  - vii. In addition, the patient's height and weight, and pregnancy and lactation status will be considered when applicable
- 8. The clinician will document the administration of the medication, including dose and route, in the EMR.

# F. Medication Management: Monitoring, Education, and Self-Management

- 1. Patients will be monitored throughout the course of treatment for effectiveness of medications, response to medications, duplicate therapies, drug-drug, drug-allergy, and/or drug-food interactions, actual/potential adverse reactions and side effects of drug therapy and adherence to drug therapy. When indicated, the nurse will document and communicate pertinent information and will initiate emergency procedures outlined in *Anaphylaxis and First Dose procedure*.
- 2. Patients and/or families are educated regarding medication purpose, side effects, potential for adverse effects, appropriate medication management, and when to report medication concerns. Written materials are provided regarding agency-identified high risk medications upon admission. Patient/caregiver response to medication education is documented in the EMR.
- 3. At the time that the initial orders for home care have been approved by the ordering physician, the Team Assistant prints the patient medication list and forwards the list to the primary clinician for delivery to the patient. All subsequent changes in medications are captured on the patient's written medication list. Patients are instructed to bring their medication list to other providers involved in their care, including visits to the emergency room. When significant changes in medications occur over the course of care, the clinician requests a new patient medication list be printed by contacting his/her assigned Team Assistant. The clinician delivers the updated medication list to the patient and ensures old copies are destroyed.

- 4. When the nurse is preparing individual medications, excluding medi-planners, for a patient, e.g. insulin syringe prefills, the container is labeled with patient name, medication name, dose, frequency and expiration date.
- 5. Patients and/or caregivers are assessed on an ongoing basis to determine their ability to correctly administer all medications and adhere to the ordered medication regimen. The nurse initiates a plan if long-term medication management is required, and consults with appropriate disciplines for assistance.

## G. <u>Continuity of Care at Discharge/Transfer</u>

- 1. Discharge to self care and community:
  - a. On an ongoing basis, clinicians are responsible to assure that patients have received up-to-date instructions in medication management and to assure that patients have an accurate list of their medicines upon discharge. Patients are instructed to share their up-to-date medication list with other providers involved in their care.
  - b. The discharging clinician documents in the discharge summary that a complete list of medications was given to the patient/family.
  - c. Patients who receive a "one time evaluation" or who are "not taken for care" may be given, but are not required to receive, a written list of medications from HHVNA. The clinician documents any medication teaching provided.
- 2. Transfer to Hospital or Skilled Nursing Facility:
  - a. Upon transfer to another setting, service or level of care, the clinician will leave a message on the agency's Hospital Hotline Number (extension #4400). The Hotline messages are picked up daily by the receptionist.
  - b. The agency confirms that the patient is admitted to the facility and then the patient's medication list is faxed to the facility. (*see policy #3002 Service Transfer Plan*)

## References:

- 1. CFR 484.55(c),
- 2. Joint Commission National Patient Safety Goals 2015: Maintaining and communicating accurate medication information
- 3. Institute for Safe Medication Practices (2013)
- CDC (Center for Disease Control)/NIOSH (National Institute for Occupational Safety and Health) Website: Publication No. 2004-165 "Preventing Occupational Exposure to Antineoplastic and Other Hazardous Drugs in Health Care Settings"
- 5. Visiting Nurse Associations of America (2013). Blueprint for Excellence: Medication Management and Adherence
- 6. Massachusetts Board of Nursing personal communication, 2014
- 7. APTA Official Statement: The Role of the Physical Therapist in Medication Management, 10/26/2010; <u>www.apta.org</u>.

#### **Related Policies**

#1028 - Storage & Handling of Vaccines and Other Medications and Testing Materials

#2208 - IV Medication Verification & Administration

#3002 - Service Transfer Plan

#### **Related Procedures**

Anaphylaxis and First Dose

Infusion Medication Administration

Infusion Therapy - Medication: Chemotherapeutic Agents

Responsibility:Nursing Staff, Referral DepartmentDistribution:Leadership

Nature of Change:	Revised in Entirety 12/15
CCO Signature:	//
CEO Signature:	//

# LOOK ALIKE –SOUND ALIKE MEDICATIONS

Potential Problematic	Generic (lower case) and Brand Name	Potential Error	Safety Strategies
Drug Names	(UPPERCASE)		
Insulin Products			
✓ Lantus and Lente	LANTUS (insulin glargine)	Similar names, strengths and	Emphasize the word "mixture" or "mix"
✓ Humalog and Humulin	LENTE (insulin zinc suspension)	concentration ratios of some products	along with the name of the insulin
<ul> <li>Novolog and Novolin</li> </ul>	HUMULIN (human insulin products)	(e.g. $70/30$ ) have contributed to	product mixtures.
✓ Humulin and Novolin	HUMALOG ( insulin lispro)	medication errors. Mix-ups have also	Ensure that labels correctly differentiate
✓ Humalog and Novolog	NOVOLIN (human insulin products)	occurred between the 100unit/mL and	from established products.
✓ Novolin 70/30 and	NOVOLOG (human insulin aspart)	500 units/mL insulin concentrations	
✓ Novolog Mix 70/30	NOVOLIN 70/30 (70% isophane insulin		
	[NPH]		
	And 30% insulin injection [regular]		
	NOVOLOG MIX 70/30		
	(70% insulin aspart protomine suspension		
	and 30% insulin aspart)		
Concentrated Liquid Morphine	Concentrated:	Concentrated forms of oral morphine	Recommend use of dropper bottles to
Products vs. Conventional Liquid	ROXANOL, MSIR	solution (20 mg/mL) have often been	dispense concentrated solutions.
Morphine Concentrations	Conventional:	confused with the standard concentration	Verify that patients and caregivers
	Morphine Oral Liquid	(listed as $10 \text{ mg/5 mL}$ or $20 \text{ mg/5mL}$ ),	understand how to measure the proper
		leading to serious errors.	dose for home administration.
		Accidental selection of the wrong	
		concentration, and prescribing/labeling	
		the product by volume, not milligrams,	
		contributes to these errors, some of which	
		have been fatal. For example, "10 mg"	
		has been confused with "10 mL". If	
		concentrated product is used, this	
		represents a 20-fold overdose.	
Hydromorphone Injection and	DILAUDID (Hydropmorphone)	Some health care providers mistakenly	Ensure that health care providers are
Morphine Injection	ASTRAMORPH,	believed that Hydromorphone is the	aware that these two products are not
	DURAMORPH,	generic equivalent of Morphine. Fatal	interchangeable
	INFUMORPH	errors have occurred when	
	(Morphine)	Hydromorphone was confused with	
		Morphine. This may represent significant	
		overdose, leading to serious adverse	
		events.	

Potential Problematic	Generic (lower case) and Brand Name	Potential Error	Safety Strategies
Drug Names	(UPPERCASE)	The second second for Classification	San Cananal Decommon dations for
Cioniaine and Cionazepam	(Clonidina)	and the confused of the contraction	Proventing Drug Mix upg
	(Cloniume) KLONODIN	for Clonazonam	Fleventing Drug Mix-ups
	(Clongzongm)	tor Cronazepani.	
Samona and	(Clonazepain) SERZONE (Nafazodona)	Powerd similar names, these medications	
Serzone ana	SERZONE (Nelazodolle)	beyond similar names, these medications	
Seroquei	SEROQUEL (Ovietenine)	200 mg. Doth hous similar instructions	
	(Quietaphie)	and desage ranges; both are used in	
		similar clinical softings	
		Solution or dizziness has occurred when	
		Seroquel was dispensed instead of	
		Serozone Decompensation of mental	
		status has occurred when Serzone was	
		given instead of Seroquel There are	
		many potentially dangerous drug	
		reactions with Serzone. There are reports	
		of serious sometimes fatal reactions	
		when patients	
		Receiving monoamine oxidase inhibitors	
		are given drug with pharmacologic	
		properties similar to nefazodone.	
Zvprexa and Zvrtec	ZYPREXA	Name similarity has resulted in frequent	
	(Olanzapine)	mix ups between Zyrtec, an	
	ZYRTEC	antihistamine, and Zyprexa, an	
	(Cetirizine)	antipsychotic. Patients who receive	
		Zyprexa in error have reported dizziness,	
		with potential injury related to fall.	
		Patients on Zyprexa for behavioral issues	
		have relapsed when given Zyrtec in error.	
Prozac and Prilosec	PROZAC (Fluoxetine Hydrochloride)	Name similarity creates potential for mix-	
	PRILOSEC (Omeprazole)	ups.	
		Prozac is an antidepressant and Prilosec is	
		used for treatment of GERD	
Xanax and Zantac	XANAX (Alprazolam)	Name similarity creates potential for mix-	
	ZANTAC (Ranitidine Hydrochloride)	ups.	
		Xanax is an anti-anxiety medication and	
		Zantac is used for treatment of gastric	
		ulcer	

Potential Problematic	Generic (lower case) and Brand Name	Potential Error	Safety Strategies
Drug Names	(UPPERCASE)		
Celexa and Zyprexa	CELEXA (Citalopram Hydrobromide)	Name similarity creates potential for mix-	
	ZYPREXA (Olanzapine)	ups.	
		Celexa is an anti-depressant and Zyprexa	
		is used for treatment of schizophrenia and	
		bi-polar disease.	
Zantac and Zyrtec	ZANTAC(Ranitidine Hydrochloride)	Name similarity creates potential for mix-	
	ZYRTEC (Cetirizine)	ups.	
		Zantac is used for treatment of gastric	
		ulcer and Zyrtec is an antihistamine.	

*General Recommendations* for Preventing Drug Name Mix-ups:

- Maintain awareness of look-alike and sound-alike drug names.
- Whenever possible, determine the purpose of the medication. Most products with look-alike sound-alike names are used for different purposes.
- Implement use of "read back" when accepting telephone orders to ensure transcription of the correct drug name.

# **Hazardous Drugs**

The goal of identifying hazardous drugs is to utilize a standard precautions approach to handling these drugs in the workplace. The National Institute for Occupational Safety and Health (NIOSH) has identified drugs considered hazardous so as to improve health care worker awareness and safety.

Hazardous drugs include those used for cancer chemotherapy, antiviral drugs, hormones, some bioengineered drugs, and other miscellaneous drugs.

# NIOSH Definition of Hazardous Drugs

Drugs considered hazardous include those that exhibit one or more of the following characteristics in humans or animals:

- 1. Carcinogenicity
- 2. Teratogenicity or other developmental toxicity
- 3. Reproductive toxicity
- 4. Organ toxicity at low doses
- 5. Genotoxicity
- 6. Structure and toxicity profiles of new drugs that mimic existing drugs determined hazardous by the above criteria

Some drugs defined as hazardous may not pose a significant risk of direct occupational exposure because of their dosage formulation (for example, coated tablets or capsules- solid, intact medications that are administered to patients without modifying the formulation). However, they may pose a risk if solid drug formulations are altered, such as crushing tablets or making solutions from them outside a ventilated cabinet.

# **Handling Hazardous Drugs**

Information regarding proper handling of hazardous drugs may be obtained from the following sources:

- 1. Material Safety Data Sheets (MSDS)
- 2. Product Labeling and Product Inserts
- 3. Infusion Company/Vendor Information
- 4. IV Resource Nurse

# List of Organization Specific Drugs that should be Handled as Hazardous

Home Health VNA has identified the following drugs that should be handled as hazardous. This list will be reviewed no less than annually and updated on an ongoing basis as needed.

DRUG	CLASSIFICATION
Cyarabine	Antineoplastic agent
Cyclosporin	Immunosuppressive
Fluorouracil	Antineoplastic agent
Ganciclovir	Antiviral
Irinotecan	Antineoplastic agent
Methotrexate	Antineoplastic agent
Paclitaxel	Antineoplastic agent
Pentamidine isethionate	Miscellaneous anti-infective
Tamoxifen	Antineoplastic agent

# High Alert Medication Classifications

High-alert medications are drugs that bear a heightened risk of causing significant patient harm when they are used in error. Although mistakes may or may not be more common with these drugs, the consequences of an error are clearly more devastating to patients. Home Health VNA has identified the following classifications of medications commonly used in home care to be inherently high risk and has developed patient education materials with which to assist patients to learn about the risks associated with these medications so that they can be properly informed about medication management and monitoring for possible adverse effects of these medications.

CLASSIFICATION	MEDICATION EXAMPLES (not limited to)
Antithrombotic Agents	Warfarin, Heparin
Hypoglycemic Agents	Insulin, Metformin, Glyburide
Narcotic Analgesics	Morphine, Hydrocodone, Percocet

#### Development of the "Do Not Use" List

In 2001, The Joint Commission issued a Sentinel Event Alert on the subject of medical abbreviations. A year later, its Board of Commissioners approved a National Patient Safety Goal requiring accredited organizations to develop and implement a list of abbreviations not to use. In 2004, The Joint Commission created its "Do Not Use" List to meet that goal. In 2010, NPSG.02.02.01 was integrated into the Information Management standards as elements of performance 2 and 3 under IM.02.02.01.

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

#### Official "Do Not Use" List<sup>1</sup>

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