

U: Medication Administration

Major Competency Area: U
Medication Administration

Priority: **One**

Competency: **U-1**
Pharmacology and Principles of Administration of Medications

Date: September 1, 2005

A Licensed Practical Nurse will:

- U-1-1 Demonstrate knowledge and ability to apply critical thinking and clinical judgment throughout the pharmacology / medication administration process.**
- U-1-2 Demonstrate ability to apply knowledge of pharmacology throughout the process of administration of medication:**
- describe the physiological mechanisms of medication action including:
 - absorption
 - distribution
 - metabolism
 - excretion
 - identify the factors which affect medication action in adults, elderly, and children
 - identify toxic, idiosyncratic, allergic, interactive, and side effects of medications.
- U-1-3 Demonstrate knowledge of the principles of medication administration as related to assessment, evaluation, and documentation.**
- U-1-4 Demonstrate ability to adhere to agency policy and procedure in the safe administration of medications.**

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Competency: U-2
Assess Client Need for Medication

Date: September 1, 2005

A Licensed Practical Nurse will:

- U-2-1 Demonstrate ability to assess the client's need for and potential response to medication by researching the client's record and observing client's behavior.**
- U-2-2 Demonstrate ability to review the pertinent information regarding client prior to preparing the medication such as:**
- diagnosis, history, co-morbidities, and contraindications
 - history of allergies
 - medication history
 - age, weight, and dietary history
 - current clinical condition and cognitive status
 - level of knowledge regarding medication
 - client's learning needs.
- U-2-3 Demonstrate knowledge and ability to assess the appropriateness of the route of medication administration for the client such as:**
- ability to swallow
 - level of consciousness
 - age
 - body build
 - muscle size
 - skin condition
 - weight.
- U-2-4 Demonstrate ability to identify risk factors and contraindications to the medication and report appropriately.**
- U-2-5 Demonstrate ability to document assessment and nursing actions related to risk factors.**

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Competency: **U-3**
Processing Medication Orders

Date: September 1, 2005

A Licensed Practical Nurse will:

U-3-1 Demonstrate knowledge and ability to identify the components of a medication order:

- name of drug
- dosage
- frequency
- route
- duration
- date and time
- signature of physician / nurse practitioner.

U-3-2 Demonstrate knowledge and ability to accept, process, and initiate medication orders such as:

- written, verbal, phone or electronic order
- time limited order
- standing order
- stat order
- PRN order.

U-3-3 Demonstrate knowledge and ability to verify that medication order:

- is complete and accurate
- transcribe medication order
- is appropriate to the patient and condition
- follow-up with the physician as necessary
- consult with other health professionals
- adhere to agency policy.

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Competency: U-4
Access Resources and Information

Date: September 1, 2005

A Licensed Practical Nurse will:

U-4-1 Demonstrate knowledge and ability to access appropriate resources for information on medication such as:

- Compendium of Pharmaceuticals and Specialists (CPS)
- Nursing Drug Handbook
- Nursing Drug Reference
- Formulary
- Computerized Medication System
- Pharmaceutical Information Network
- Pharmacy Department.

U-4-2 Demonstrate knowledge and ability to identify the types of information to be researched about a medication prior to administration:

- appropriateness of medication for client
- action of medication
- safe dosage range
- routes
- side effects and adverse effects of the medication
- special precautions or examinations required pre and post administration
- identification of allergies
- nursing implications.

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Competency: **U-5**
Calculating Medication Dosages

Date: September 1, 2005

A Licensed Practical Nurse will:

- U-5-1 Demonstrate ability to apply basic arithmetic to calculate medication dosages and solutions with 100% accuracy.**
- U-5-2 Demonstrate knowledge and ability to identify the common systems of measurement:**
- the volume and weight of the metric system
 - the liquid and solid measures of the household systems.
- U-5-3 Demonstrate knowledge and ability to safely calculate dosages, concentrations, rates, and volumes:**
- utilize available medication in desired dosage if available
 - calculate the dosage quantity to be administered:
 - simplify by reducing to the lowest terms if possible
 - utilize equivalency tables and resources to covert weights and volumes
 - utilize acceptable formulae for calculating
 - seek guidance from another health professional as necessary.

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Competency: **U-6**
Preparation of Medication

Date: September 1, 2005

A Licensed Practical Nurse will:

U-6-1 Demonstrate knowledge and ability to prepare medication for administration:

- mix powdered oral medications
- mix powder in a vial with diluent for injectable medications
- mix medication in infusion bag or syringe
- mix medication in buretrol / minibag infusion system
- mix medications in a syringe.

U-6-2 Demonstrate knowledge and ability to prepare medications for injection:

- draw medication out of an ampoule
- draw medication out of a vial
- change needle to appropriate size for administration
- label multi-dose vials for next use
- handle and dispose of sharps appropriately.

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Competency: **U-7**
Administration of Medication

Date: September 1, 2005

A Licensed Practical Nurse will:

U-7-1 Demonstrate ability to apply the “rights” for administering medication:

- right medication
- right dose
- right route
- right time
- right client
- right documentation
- right to refuse.

U-7-2 Demonstrate ability to review pertinent information related to medication including:

- action
- duration
- frequency
- purpose
- side effects
- nursing implications.

A Licensed Practical Nurse will:

U-7-3 Demonstrate knowledge and ability to administer medications according to agency policy and procedures:

- enteral:
 - oral
 - tube feed, nasogastric delivery
- parenteral:
 - subcutaneous
 - intramuscular
 - intradermal
 - intravenous (with exception of direct IV push medications)
- percutaneous:
 - skin application (topical)
 - mucous membranes
 - sublingual, buccal, optic, otic, nasal, inhaled, vaginal, rectal.

U-7-4 Demonstrate knowledge and ability to provide proper documentation:

- document administration of medication immediately after administering
- use specific forms supplied for medication documentation per agency
- computerized documentation.

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Priority: **One**
Restricted Activity Authorization

Competency: **U-8**
Prepare and Administer Injections

Date: September 1, 2005

A Licensed Practical Nurse will:

U-8-1 Demonstrate understanding of restricted activities in LPN Regulation 2003 (13) authorizing administration of medications via injection:

“(1) Regulated members are authorized, in accordance with this section, to perform the restricted activity of administering anything by an invasive procedure on body tissue below the dermis for the purposes of administering *subcutaneous injections*.

(2) Only regulated members who received their diploma or certificate after June 1, 2001 from a program approved by the Council or who have successfully completed a post basic education program in administration of intramuscular injections approved by the Council may perform the restricted activity referred to in subsection (1) for the purposes of administration of *intramuscular injections*.

(3) Only regulated members who have completed advanced training approved by the Council are authorized to perform the restricted activity referred to in subsection (1) for the purposes of performing *intradermal injections* .”

Health Professions Act LPN Regulation 2003

U-8-2 Demonstrate ability to properly prepare medication for injection.

U-8-3 Demonstrate ability to repeat the check of the medication name, dose, time and route of administration, and expiration date.

U-8-4 Demonstrate ability to double check selected medications with another nurse prior to administration according to agency policy and protocol.

U-8-5 Demonstrate ability to identify client by checking identification number and name.

U-8-6 Demonstrate ability to explain steps of the procedure and the pertinent information regarding the medication to the client.

A Licensed Practical Nurse will:

- U-8-7 Demonstrate ability to prepare the environment for administering the injection:**
- ensure privacy
 - position client
 - follow aseptic technique
 - secure client appropriately.
- U-8-8 Demonstrate ability to select and landmark site for injection.**
- U-8-9 Demonstrate ability to use proper technique to administer injection:**
- subcutaneous
 - intradermal
 - intramuscular
 - intravenous.
- U-8-10 Demonstrate ability to dispose of sharps, used equipment, and supplies.**
- U-8-11 Demonstrate ability to record the medication administration and client's response.**
- U-8-12 Demonstrate ability to document and report effects from medication appropriately.**

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Restricted Activity Authorization

Competency: **U-9**
Nitrous Oxide

Date: September 1, 2005

A Licensed Practical Nurse will:

U-9-1 Demonstrate understanding of the restricted activity in the LPN Regulation 2003 (18) authorizing administration of nitrous oxide:

“All regulated members may provide the restricted activity of administering nitrous oxide for the purpose of anesthesia or sedation if a person who is authorized to provide that restricted activity is on site and immediately available to assist.”

Health Professions Act LPN Regulation 2003

U-9-2 Demonstrate knowledge of the risks and precautions in the administration of nitrous oxide.

U-9-3 Demonstrate knowledge of adverse reactions and interventions necessary when administering nitrous oxide.

Note: LPNs administering nitrous oxide have received additional on the job education specifically about nitrous oxide.

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Competency: **U-10**
Support and Teaching

Date: September 1, 2005

A Licensed Practical Nurse will:

U-10-1 Demonstrate knowledge and ability to teach and support the client / family regarding medications:

- assess client's understanding about the medication
- provide information regarding:
 - medication name
 - usual action / purpose
 - compliance
 - possible interactions
 - potential side effects
 - adverse effects
 - special precautions
- provide information to enhance the effectiveness of the medication.

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Competency: U-11
Monitoring Drug Effectiveness

Date: September 1, 2005

A Licensed Practical Nurse will:

- U-11-1 Demonstrate knowledge of the therapeutic outcomes of the medication for the client.**
- U-11-2 Demonstrate knowledge and ability to monitor the client while medication is being administered and intervene appropriately as necessary.**
- U-11-3 Demonstrate knowledge and ability to evaluate the outcome of the medication on the client and seek appropriate intervention as necessary.**
- U-11-4 Demonstrate ability to recognize, intervene, manage and report adverse and non-adverse (expected) drug reactions and document as appropriate.**
- U-11-5 Demonstrate knowledge and ability to recognize and manage anaphylaxis:**
 - identifying symptoms of anaphylaxis:
 - severe bronchospasm
 - shortness of breath
 - angioedema
 - hypotension
 - urticaria
 - administer anaphylactic medications as appropriate
 - seek assistance from other health care professionals.

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Competency: **U-12**
Storage and Disposal Procedures

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A Licensed Practical Nurse will:

U-12-1 Demonstrate knowledge and ability to properly store and dispose of medications and medication administration supplies:

- store and dispose of sharps in appropriate manner
- check shelf life of medications
- store narcotics and controlled substances per agency policy
- maintain appropriate storage requirements for medications:
 - light sensitive
 - refrigerated
- follow medication disposal protocol per agency policy.

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Competency: **U-13**
Drug Counts on Controlled Medications

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A Licensed Practical Nurse will:

- U-13-1 Demonstrate knowledge and ability to conduct drug counts on controlled medications (i.e., narcotics) as per agency policy:**
- record on inventory sheets for controlled medications / narcotic drug counts
 - participate in shift count and record the controlled medication inventory
 - record on inventory sheets upon addition or removal of medication from appropriate secured area
 - use of automated inventory systems
 - co-sign waste of controlled medication / narcotics.

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Restricted Activity Authorization

Competency: **U-14**
Diagnostic Imaging Contrast Agents

Date: September 1, 2005

A Licensed Practical Nurse will:

U-14-1 Demonstrate understanding of the restricted activity in the LPN Regulation 2003 (17) authorizing administration of diagnostic imaging contrast agents:
“All regulated members may provide the restricted activity of administering diagnostic imaging contrast agents with written or verbal direction from an authorized practitioner who is on site and available to assist.”
Health Professions Act LPN Regulation 2003

U-14-2 Demonstrate knowledge of the different types of diagnostic imaging contrast agents.

U-14-3 Demonstrate knowledge of adverse reactions and interventions necessary when administering diagnostic imaging contrast agents.

Note: LPNs administering diagnostic imaging contrast agents have received additional on the job education specifically about the contrast agents used in the practice area.

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Competency: **U-15**
**Professional Accountability in
Medication Administration**

Date: September 1, 2005

A Licensed Practical Nurse will:

- U-15-1 Demonstrate ability to accept full responsibility and accountability for own actions in the preparation and administration of medications.**
- U-15-2 Demonstrate knowledge and ability to adhere to the standard of the “rights” of medication administration:**
- right medication
 - right dose
 - right route
 - right time
 - right client
 - right documentation
 - right to refuse.
- U-15-3 Demonstrate knowledge and ability to identify and acknowledge a medication error immediately upon discovery and report appropriately to allow for timely intervention.**
- U-15-4 Demonstrate ability to document and complete incident report as appropriate.**