

OUR LADY OF THE LAKE REGIONAL MEDICAL CENTER			
Policy Manual:	Pharmacy	Section:	Hazardous Substances
Title:	Preparation & Storage of Intrathecal Chemotherapy	Policy Reference #:	PH-06-08
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PURPOSE:

This document describes the proper method for preparation, storage and delivery of intrathecal chemotherapy doses within the Our Lady of the Lake Health system and areas of administration.

DEFINITIONS:

Intrathecal Administration - The injection of a therapeutic agent (in this case a chemotherapy agent) into the sheath surrounding the spinal cord

Preservative Free (PF) – all medications and diluents used in the preparation of intrathecal doses **cannot** contain any of the usual preservatives in medications and diluents to increase their stability as these agents could cause harm to the patient.

PROCEDURES:

A. Preparation of chemotherapy intrathecal doses

Intrathecal medication is not prepared during the preparation of any other agents. Intrathecal chemotherapy agents are prepared on the day of use and are given an expiration of 0000(midnight). The workspace in the Biologic Safety Cabinet (BSC) is cleaned per protocol prior to preparation of all intrathecal doses.

1. **Reconstitution Directions:**

a. **Methotrexate for Adults:**

Methotrexate diluted to a concentration of 10mg/ml using a ratio of 1ml 25mg/ml PF Methotrexate to 1.5ml of PF 0.9% NaCl.

b. **Methotrexate for Pediatrics:**

Methotrexate diluted to a concentration of 2.5mg/ml using a ratio of 1ml of 25mg/ml PF Methotrexate with 9ml of PF 0.9% NaCl.

c. **Cytarabine for Adults:**

Cytarabine diluted to a concentration of 50mg/ml by diluting a 100mg PF Cytarabine vial with 2ml of PF 0.9% NaCl.

d. **Cytarabine for Pediatrics:**

Cytarabine 100mg PFL vial diluted to a concentration of 10mg/ml using a ratio of 1ml of 20mg/ml PFL Cytarabine with 1ml of PF 0.9% NaCl.

e. Hydrocortisone for Adults and Pediatrics

Hydrocortisone diluted to a concentration of 50mg/ml using 2ml of PF 0.9% NaCl.

NOTE: Dilutions not listed require OLOL P&T Committee approval before patient administration.

2. **Filtering:**

All dilutions intended for intrathecal use are filtered through a 0.22 micron filter that has been approved by the manufacturer for that use before doses are prepared.

B. Dispensing of chemotherapy intrathecal doses

1. Only the Intrathecal dose should be dispensed and delivered to the treatment/procedure room for Pediatrics or interventional radiology for adult inpatient. Intrathecal for ommaya injection will be delivered directly to the provider that will administer the dose.
2. Intrathecal doses are never packaged with non-intrathecal doses in bags, pneumatic tubes or any other type of transportation or storage.
3. No other chemotherapy medications (for the same or a different patient) will be dispensed (delivered) at the same time. If the patient has other chemotherapy to be administered as well, they will not be sent up until after the administration of the intrathecal dose has been confirmed.

C. Storage of chemotherapy intrathecal doses

Once intrathecal doses are labeled, they are stored in isolated container bins that are uniquely identifiable for intrathecal medication only and located according to temperature requirements as specified by the medications' manufacturer and specified. There are separate bins located in the refrigerator and on shelving at room temperature to accommodate storage at the appropriate temperature specified by the USP. Any unused product or returned preparations are destroyed.

REFERENCES

1. Jacobson, J., Polovich, M., et al. *Revisions to the 2009 American Society of Clinical Oncology/Oncology Nursing Society Chemotherapy Administration Safety Standards: Expanding the Scope to Include Inpatient Settings*. Oncology Nursing Forum Vol. 39 No.1 (2012): 31-38.