
APPENDIX I: Administration of Intrathecal Cytotoxic Drugs

Administration of Cytotoxic Drugs by the Intrathecal Route via Lumbar Puncture or Ommaya Reservoir

POLICY:

A signed patient consent, using the VCHA Consent to Health Care: Medical or Surgical form (M-1C, 4-2005, 00055244) for the lumbar puncture is required prior to starting treatments. The consent is obtained once for the entire set of intrathecal treatments at the beginning of the treatments.

PROCEDURES:

1. The physician must review patients before intrathecal chemotherapy is administered to ensure the patient is fit for treatment, the correct tests have been conducted and the correct chemotherapy has been prescribed.

2. The patient's platelet count will be sufficient to permit the administration of the drug according to the specific treatment protocol and will have been drawn within one week of the procedure. For patients in whom ongoing thrombocytopenia is anticipated, the platelet count is to be drawn immediately prior to or the morning of the procedure.

3. Intrathecal administration of chemotherapy must occur in designated areas only and within normal working hours (i.e. at times when attending physicians and support is readily accessible). The designated areas include:

- Outpatient Leukemia-BMT Unit (CP6 A/B)
- Inpatient Leukemia-BMT Unit (T15 A/B)
- Hematology Apheresis Unit (CP6 C/D)
- Radiology (for radiologically guided administration)

3.1. Ideally, a single patient room should be designated for intrathecal chemotherapy, and when intrathecal chemotherapy is being administered the area should not be used for any other purpose.

3.2. It is accepted that exceptions will need to be made for patients in a multi-patient room (i.e. inpatient unit) and for outpatients who are positive for an antibiotic resistant organism (ARO) where the procedure will be performed in the ARO room. In these circumstances, no other cytotoxic drugs will be brought into the room until the intrathecal procedure is completed.

4. The physician will wear sterile gloves, a long sleeve, moisture resistant gown, a mask, and face/eye

protection according to the Clinical Practice Document for Cytotoxic Agents (CPD-396). Goggles must be worn any time there is a risk of drug spray during the procedure (WCB Health and Safety Regulation 6.55, 1998).

5. Intrathecal chemotherapy orders will be written on a separate order sheet from all other chemotherapy and supportive medication orders. Any pre-printed order that includes a combination of drugs administered intrathecally and by other parenteral routes will have specific instructions to write the intrathecal drug(s) on a separate order. Where possible, intrathecal drugs will be administered on a different day from other parenteral route chemotherapy.

6. The VGH Pharmacy will check and prepare all intrathecal doses according to the established chemotherapy mixing procedures. These doses will be dispensed from the Pharmacy as follows:

6.1. All intrathecal doses will have a label stating the patient's name, patient's MRN, generic drug name, drug dose, expiry date and time, and route of administration in full (i.e. For INTRATHECAL use only).

6.2. Intrathecal doses will be provided in Luer-lock syringes (WCB Health and Safety Regulation 6.54).

6.3. Intrathecal syringes will have an auxiliary label stating "For INTRATHECAL use" attached to the syringe and the outer zip-lock bag. These will be bright in colour and clearly visible.

6.4. Intrathecal doses will be packaged in separate outer containers, which will have an auxiliary label stating "For INTRATHECAL use", for transport to the designated area. (i.e. Intrathecal doses will be delivered separately from all other chemotherapy doses)

6.5. For protocols in which intrathecal drugs and drugs administered by other parenteral routes are all to be given in one treatment cycle, the intrathecal drug will not be released from Pharmacy until the nurse or physician verbally confirms that the administration of the non-intrathecal drug(s) is completed or in progress.

6.6. Intrathecal doses are to be administered by physicians only and will be clearly labeled "To be administered by doctor".

6.7. Chemotherapy doses labeled with the following warning label are never to be given via the intrathecal route:

**- FOR IV USE ONLY -
FATAL IF GIVEN BY OTHER ROUTES**

7. Intrathecal chemotherapy drugs should be stored in a dedicated container between issuing and administration when they cannot be administered immediately.

8. In order to reduce distractions during the procedure, discussions with the patient, family and staff regarding consent, indications, and the procedure involved will take place prior to the procedure. The number of people in the treatment area will be kept to a minimum in order to reduce distractions during the procedure.

9. For all lumbar punctures, the only drugs permitted in the treatment area are the intrathecal chemotherapy drugs and the drugs used for analgesia and sedation. All staff involved in the procedure is responsible for ensuring that no other drugs are taken into the treatment area. However, medications that patients are receiving by infusion at the time of the administration of the intrathecal drug do not need to be stopped or removed during the procedure unless the physician specifically requests it.

10. Once the patient is in the designated area the physician and nurse, or if unavailable another physician, will:

10.1. Identify the patient

10.2. Read the labels for the intrathecal drugs out loud and check both the drugs and the doses against the medication order. Drugs labeled with the following warning label are never to be given via the intrathecal route:

**- FOR IV USE ONLY -
FATAL IF GIVEN BY OTHER ROUTES**

10.3. Both the physician and nurse, or if unavailable another physician, will sign the medication order to indicate the intrathecal chemotherapy has been checked.

10.4. Place the intrathecal chemotherapy on the sterile drape **beside** the LP tray. (The syringes are not considered sterile.) The only additional drugs permitted on the tray are local anesthetics.

10.5. Immediately prior to injection of the chemotherapy drug, the physician must read out loud the information on the label attached to the syringe. The chemotherapy drug will be administered slowly through the LP needle over 1 to 2 minutes.

11. For patients who will receive intrathecal chemotherapy under fluoroscopy, the two professional checks (steps 10.1 to 10.3) are still required and will be done on the unit prior to the patient being sent down to the fluoroscopy suite. The physician who checked the chemotherapy and who will

accompany the patient to the fluoroscopy suite will transport the intrathecal chemotherapy to the fluoroscopy suite. Once in the fluoroscopy suite and before administering the intrathecal chemotherapy, the physician must check the following with the radiologist:

11.1. Identify the patient

11.2. The name of the intrathecal chemotherapy, dose, volume and route of administration on the label attached to the syringe.

12. At the end of the procedure the physician who administered the chemotherapy must sign on the Medication Administration Record that the chemotherapy has been given.

Reference:

- BCCA, Policy and Procedure of the Administration of Cytotoxic Drugs by the Intrathecal Route via Lumbar Puncture or Ommaya Reservoir, Updated April 2010.
- ISMP Canada Medication Safety Alert. August 2000.

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