



**BC Cancer Agency**  
CARE & RESEARCH

# **Improving Patient Safety and Compliance**

## **Module 4**

**Includes  
Recommended Procedures**

## Table of Contents

<b>Section A</b> .....	<b>1</b>
<b>A.1 Intrathecal (IT) Doses</b> .....	<b>1</b>
<b>Section B</b> .....	<b>1</b>
<b>B.1 Vinca Alkaloids</b> .....	<b>1</b>
<b>Section C</b> .....	<b>2</b>
<b>C.1 Blister Packaging of Oral Hazardous Drugs</b> .....	<b>2</b>
<b>Section D</b> .....	<b>2</b>
<b>D.1 Outpatient Hazardous Drug Prescription Labelling</b> .....	<b>2</b>
<b>Section E</b> .....	<b>3</b>
<b>E.1 Latex Allergies</b> .....	<b>3</b>
<b>References</b> .....	<b>4</b>

## Section A

### A.1 Intrathecal (IT) Doses

An intrathecal (IT) injection is administered directly into the spinal canal. **Preparation of IT doses must be performed accurately given the limitations of syringe technology while following the principles of aseptic technique for the safety of the patient and to minimize exposure of staff to the hazardous drugs.**<sup>1</sup>

All intrathecal doses will have a label stating the patient name, date, generic drug name, dose and route in full (i.e. By INTRATHECAL Injection). The route will be highlighted by using all upper case letters and/or a coloured highlighting pen. This labelling will be attached to the syringe and to the outer zip-lock bag. Intrathecal doses will be provided in luer lock syringes (WorkSafe BC Health and Safety Regulation 6.54). Intrathecal syringes and labels will have an auxiliary label stating 'IT' attached to the syringe and the outer zip-lock bag. These will be bright in colour and clearly visible.

Intrathecal doses will be packaged in separate outer containers for transport to the centre specific treatment location (i.e. intrathecal doses will be delivered separately from all other chemotherapy doses).

For protocols in which intrathecal drugs and drugs administered by other parenteral routes are all to be given in one same treatment cycle, the non-intrathecal drugs will NOT be released from pharmacy until the nurse or physician confirms that the intrathecal drug administration is completed.

#### *Note:*

- All drug and diluent used in the preparation of IT doses MUST be preservative free<sup>2</sup>
- All drug used MUST be labelled 'for intrathecal use' by the manufacturer<sup>2</sup>
- Gloves MUST be changed immediately prior to preparing the intrathecal dose<sup>1</sup>

Refer to Module 1 Checklists – Preparation of a Hazardous IT Dose Using a CHEMO VENT<sup>®</sup>

Refer to Module 1 Checklists – Preparation of a Hazardous IT Dose Using PhaSeal<sup>™</sup>

Refer to BCCA Systemic Policy Number III-50 - Administration of Cytotoxic Drugs by the Intrathecal Route via Lumbar Puncture or Ommaya Reservoir on the BCCA website at:  
<http://www.bccancer.bc.ca/HPI/ChemotherapyProtocols/Policies.htm>

## Section B

### B.1 Vinca Alkaloids

**Intrathecal (IT) injection of vinca alkaloids is fatal.** It is imperative to prevent the accidental intrathecal injection of vinca alkaloids.

**All Vinca Alkaloids should be dispensed in a 50 mL minibag to be given over 5-15 minutes and labelled with an auxiliary label with the words 'WARNING: FOR INTRAVENOUS USE ONLY – FATAL IF GIVEN BY OTHER ROUTES'**<sup>3</sup>

Refer to BCCA Systemic Policy Number V-40 - Labelling of Vinca Alkaloid Preparations at:  
<http://www.bccancer.bc.ca/HPI/ChemotherapyProtocols/Policies.htm>

## Section C

### C.1 Blister Packaging of Oral Hazardous Drugs

When taken inappropriately, oral chemotherapy medications can cause serious harm to patients. This risk of harm is increased when a patient needs to take a medication which requires a mix of multiple strengths of tablets/capsules to make up the correct dose. Factors such as the number of medications the patient is on, their age, and language barriers can further compound the potential for problems.

Pharmacy should blister package capecitabine for patient's in-home administration to address these possible issues. Physicians or patients may request the blister packaging of other oral HD medications (i.e. hydroxyurea). Using blister packaging should increase patient compliance and promote safe administration of oral chemotherapy.

Refer to Module 4- Appendix 2 - BCCA Pharmacy Directive Number III-30-02 - Capecitabine/Temozolomide Dispensing

## Section D

### D.1 Outpatient Hazardous Drug Prescription Labelling

**All hazardous drugs dispensed for outpatient use must be labelled according to the current labelling standards found in the Health Professions Act (HPA) Bylaws; College of Pharmacists of BC.**

A recognized strategy to improve comprehension of the directions on outpatient prescription labels and to reduce inadvertent medication errors is to standardize drug labelling practices.<sup>4</sup>

- Use whole numbers instead of alphabet characters to describe doses, concentrations, and frequencies as much as possible (e.g., use '2'; *not* 'two')<sup>4</sup>
- For doses that include partial tablets, use alphabet characters instead of fractions (e.g., Use 'half', 'quarter'; *not* '1/2', '1/4', etc.), (use 'one and a half'; *not* '1.5')<sup>4</sup>
- Dose and interval should be clearly separated and contain specific dosing and interval times as much as possible. (e.g., 'Take 2 tablets in the morning and take 2 tablets in the evening'; *not* 'Take two tablets twice a day'), (e.g., 'Take 1 tablet in the morning'; *not* 'Take once daily')<sup>4</sup>
- Avoid awkward terms such as 'twice', 'bi-monthly', 'bi-weekly', etc.; (e.g., Use '2')<sup>4</sup>
- Use common terminology (e.g., no medical jargon)<sup>4</sup>
- Use capital letters only in the first letter of sentence (avoid all capital letters for full sentences). Use all capital letters to selectively make key words stand out<sup>4</sup>
- Avoid negative statements. Tell the patient what they should do, and not what they shouldn't do. (e.g., use 'Take by mouth', *not* 'Not for rectal use')<sup>4</sup>
- Different strengths of the same medication should be expressed in the same manner. (e.g., '250 mg, 500 mg, 1000 mg', *not* '1 g')<sup>4</sup>
- Include properly spaced commas for dose numbers above 9999. (e.g., use '10,000', *not* '10000')<sup>4</sup>
- Use standard metric abbreviations. (e.g., use 'kg, g, mg, mcg, or mL', *not* 'mLs, gm, or gms')<sup>4</sup>
- Include a space between the drug name, strength, dosage form, and dosage units *unless* it causes the strength and dosage unit to fall on separate lines. (e.g., use 'capecitabine 500 mg', *not* 'capecitabine 500mg')<sup>4</sup>
- Avoid symbols and abbreviations on the Institute for Safe Medication Practices (ISMP) 'Do not Use' list. (e.g., spell out the word 'unit', *not* 'u')<sup>4</sup>
- Ensure the most essential information is at the beginning of the directions (e.g., 'On radiation therapy days only'). Keep less essential information near the end. (e.g., 'Total dose = 500 mg')<sup>4</sup>

- When more than one strength for a drug is dispensed, include information at the end of the directions to instruct the patient to take the two strengths together. (e.g., 'Take EACH dose with \_\_\_ x \_\_\_ mg tablets')<sup>4</sup>
- **All boxes/bottles must be individually labelled; multiple boxes must not be affixed together with a label on a single box**<sup>5</sup>
- **Vials, blister cards, boxes, bottles and jars containing hazardous drugs must be clearly labelled with a “Chemotherapy” warning auxiliary label**<sup>5,6</sup>

See Warning Labels in Module 1 Section E.1.6

Refer to Module 4- Appendix 2 - BCCA Pharmacy Directive Number VI-90-02 – Outpatient Prescription Labels: Guiding Principles for Patient Instructions

## Section E

### E.1 Latex Allergies

Latex is a common agent found in many medical products. Exposure to latex can pose an important health concern to patients with a latex allergy. Patients with a suspected latex allergy should be identified and documented. **Medication for patients allergic to latex must be prepared and administered in a latex-free environment. All surfaces of the biological safety cabinet must be cleaned and disinfected prior to compounding hazardous drug (HD) admixtures for latex-sensitive patients.**<sup>7</sup>

Equipment and personal protective equipment (PPE) required for HD admixture preparations may contain latex and must be replaced with latex-free equipment/PPE when compounding for patients allergic to latex. This equipment/PPE includes but is not limited to:

- Chemotherapy gloves
- Syringes
- IV administration sets (if required)
- Hazardous drug vial stoppers must also be checked for latex content with the manufacturer

Each facility should develop a latex allergy policy. Pharmacy departments should develop a latex allergy drug preparation procedure.<sup>8</sup>

Refer to Module 4 - Appendix 2 - BCCA Pharmacy Directive Number VI-70 – Guidelines for Preparation of Parenteral Hazardous Drugs for Latex Allergy Patients

## **References**

1. BCCA Division of Pharmacy. BCCA Best Practice Safe Handling Standards. 2008.
2. BCCA Division of Pharmacy. BCCA Cancer Drug Manual. 2007; Available at: <http://www.bccancer.bc.ca/HPI/DrugDatabase/default.htm>. Accessed June 4, 2008.
3. WHO. World Health Organization Information Exchange System Alert No. 115. 2007 July 18, 2007;115.
4. BCCA Provincial Pharmacy Safety Officer/P4C. BCCA Pharmacy Directive Number VI-90-02 - Outpatient Prescription Labels: Guiding Principles for Patient Instructions. 2011 May 9.
5. SHPA Committee of Specialty Practice in Cancer Services. SHPA Standards of Practice for the Provision of Oral Chemotherapy for the Treatment of Cancer. Journal of Pharmacy Practice and Research 2007;37(2):149-152.
6. ASHP Council on Professional Affairs. ASHP Guidelines on Handling Hazardous Drugs. American Journal of Health-System Pharmacy 2006 15 Jun;63(12):1172-1191. DOI: <http://dx.doi.org/10.2146/ajhp050529>.
7. CSHP. Guidelines for Preparing Medications for Natural Rubber Latex (NRL) Sensitive/Allergic Patients. : CSHP; 2003-4. p. 107-111.
8. ASHP Council on Professional Affairs. ASHP guidelines on quality assurance for pharmacy-prepared sterile products. American Society of Health System Pharmacists. Am.J.Health.Syst.Pharm. 2000 Jun 15;57(12):1150-1169.