Final Compounded Cancer Drug Product Check

Instructions

When performing the final product check of sterile cancer drug preparations, follow the steps below to ensure that the physical product matches the written medication order, or other appropriately verified record such as a manufacturing label. These steps are in addition to the necessary clinical checks by the pharmacist.

1. Verify Special Handling Procedures followed (if required)

a. If a latex allergy is an issue: were latex precautions used?

- See ***VI-70 Guidelines for Preparation of Parenteral Hazardous Drugs for Latex Allergy Patients*** [Safe Handling Standards Manual - Module 4 - Directives].

b. If any biohazardous drugs were also being prepared: were appropriate disinfection procedures followed?

- See ***VI-40 Safe Handling and Preparation of Hazardous Drug Dosage Forms*** [Safe Handling Standards Manual **-** Module 1 - Directives].

2. Verify Correct Drug and Dose

a. Correct drug chosen: name, strength, formulation?

- Be aware of Look-Alike/Sound-Alike drugs and formulations (e.g., doxorubicin vs. liposomal doxorubicin; trastuzumab vs. trastuzumab emanstine (Kadcyla®); rituximab IV vs. rituximab SC 1400mg vs. rituximab SC 1700mg)
- If biosimilars available: correct product used (e.g., Herceptin® vs. Herzuma®)?

b. If reconstitution is required:

- Correct diluent and volume of diluent used?
- Powder fully dissolved?
- Any particulates observed in vial?

c. Check expiry date or beyond-use date for all products (e.g., drug, diluent, infusion bag).

d. Correct volume of drug used?

3. Verify Correct Delivery System

a. Syringes for drugs to be administered via IV push, subcutaneous (SC), or intrathecal (IT) route.

b. Solution bags per protocol for drugs to be administered by IV or intraperitoneal (IP) infusion.

- Is a non-DEHP solution bag is required? See ***D.3.4 Non-Di(2-ethylhexyl)phthalate (Non-DEHP) bags*** [Safe Handling Standards Manual - Module 1 - Module].

c. Elastomeric infusion device (Baxter Infusor®) for continuous ambulatory infusions of 5-fluourouracil.

- Correct infusor selected for the dose? See ***Elastomeric Infusors for fluorouracil (5-FU)*** [Frequently Asked Questions - Cancer Drug Preparation and Administration]***.***

4. Verify Correct Final Volume and Solution

a. If dilution is required: correct dilution solution and volume used?

- Correct solution (e.g., D5W or NS)? Note: D5W is always the diluent for Baxter Infusors®.
- Correct solution volume (e.g., a 100 mL or 250 mL infusion bag)?

b. Excess solution volume removal needed?

- See ***Volume Maximums*** [Frequently Asked Questions - Cancer Drug Preparation and Administration]***.*** Note: that the maximum syringe volumes mentioned here are for preparation purposes. The maximum volume of syringes dispensed for administration should not exceed 30mL as per below.
- Note - some drug manufacturers recommend that infusion solution volume, equal to the drug volume to be added, must first be withdrawn from the infusion bag prior to adding the drug to the bag (e.g., daratumumab).

c. Volume restrictions for the route of delivery? Guidelines followed at BC Cancer include:

- Subcutaneous (SC) Administration

  Check for recommended maximum dose volumes in the BC Cancer drug monographs, protocols and pre-printed orders (e.g., 11.7mL for rituximab SC 1400mg syringes).

- Intramuscular (IM) Administration

  Check for recommended maximum dose volumes in the BC Cancer drug monographs, protocols and pre-printed orders (e.g., 2mL for asparaginase IM syringes).

- All Other Syringes for Parenteral Administration

  Limit to a maximum of 30 mL in a 60 mL syringe to prevent repetitive strain injuries in nurses who administer the drug. For drug volumes greater than 30 mL, multiple syringes are supplied.

d. Stable until administration?

- For example, according to the ***Chemotherapy Preparation and Stability Chart – Drugs A to K*** [Cancer Drug Manual], etoposide has different expiries at different concentrations.
- Most drug infusions need to be started by the expiry time, however, some drug infusions need to be completed by the expiry time (ex. nivolumab). Refer to the Chemotherapy Preparation and Stability Charts [Cancer Drug Manual].

5. Visually Examine the Final Product

a. Any particulate matter present?

- Note: certain drugs (e.g., cetuximab, panitumumab) may contain white particulate matter which doesn't affect product quality, and can be administered to the patient using an appropriate in-line filter. Refer to the ***Chemotherapy Preparation and Stability Charts*** [Cancer Drug Manual].
- Check by visually inspecting the product while gently rotating it upside down and back up, preferably against an illuminated white or black background.

b. Any leakage?

c. If attachments are present (e.g., injector, infusion adapter, syringe cap, solution administration set), are they secure?

6. Verify Correct Label

Does the information on the label affixed to the final product match the medication order or manufacturing label:

a. Correct patient name and identifier (e.g., BC Cancer ID #)?

b. Correct generic name of drug, strength and dosage form?

c. Correct infusion solution name (if applicable)?

d. Correct administration rate information (if applicable)?

7. Verify Correct Auxiliary Label(s) and Packaging

a. *"Hazardous"* or "*Chemotherapy"* label affixed to infusion bag, syringe or infusion device? See ***E.1.6 Warning Labels*** [Safe Handling Standards Manual
[Module 1 – Module].

b. Correct drug stability information [e.g., expiry, keep refrigerated (if not for immediate use)]?

c. Any auxiliary labelling or packaging needed? For example:
   - Biohazardous drugs – "*Biohazardous*" auxiliary labelling
   - Dacarbazine - "*Protect from Light*" labelling and packaging
   - Latex-Free Product - "*Latex free product – use latex precautions*" labelling, and latex-free packaging
   - Syringe meant for IT administration – "IT" labelling
   - Vinca alkaloids (Vinblastine, Vincristine, and Vinorelbine) – "*ONLY for IV use*" auxiliary labelling. See ***V-40 Dispensing and Labeling of Vinca Alkaloid Preparations*** [Systemic Therapy - Policies & Procedures].

d. Final product sealed in appropriate leak-proof packaging for transport to administration site?

e. Are HDs separated from take home medications, and any non-HDs prepared per non-HD medication standards?
   - Note: non-HDs handled per HD medication standards can be packaged with HDs (e.g., rituximab prepared in the BSC following HD preparation standards).

8. Sign Documentation

Sign or initial your name on a permanent record (i.e., pharmacy patient specific record or manufacturing label) to indicate that you have verified that the final product and label are accurate and the preparation is ready.