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?

2. Verify Correct Drug and Dose
   a. Was the correct drug chosen?
   b. If reconstitution is required:
      - Were the correct diluent and volume of diluent used?
      - Was the powder fully dissolved?
   c. Check the expiry date or beyond-use date for all products (e.g., drug, diluent).
   d. Was the correct volume of drug used?

3. Verify Correct Delivery System
   a. Drugs for IV push, subcutaneous (SC), or intrathecal (IT) administration are provided in syringes.
   b. Drugs for IV or intraperitoneal (IP) infusion are provided in the solution bag that is specified in the protocol.
      - Check if a non-DEHP (non-PVC) solution bag is required. See D.3.4 Non-Di(2-ethylhexyl)phthalate (Non-DEHP) bags [Safe Handling Standards Manual - Module 1 - Module].
   c. Continuous ambulatory infusions of 5-fluourouracil are provided in Baxter Infusors®.

Final Compounded Cancer Drug Product Check
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Check that the correct infusor has been selected for the dose according to the pre-printed order. See *Elastomeric Infusor Checklist for Rate Error Prevention* [Chemotherapy Administration FAQs - Elastomeric Infusors].

4. Verify Correct Final Volume and Solution
   
a. If dilution is required, were the correct solution and solution 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)?
   - Is the drug dilution stable? For example, according to the *Chemotherapy Preparation and Stability Chart – Drugs A to K* [Cancer Drug Manual], etoposide has different expiries at different concentrations.

b. Are there any volume restrictions for the method 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.

c. Ensure that the infusion bag has not been filled beyond the recommended maximum volume.
   - See *Volume Maximums* [Chemotherapy Preparation and Safe Handling FAQs]. 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 above.

5. Visually Examine the Final Product
   
a. Is there 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. Is there any leakage?
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. Is 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 Labeling of Vinca Alkaloid Preparations [Systemic Therapy - Policies & Procedures].
   d. Is the 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.