

CONSIDERATIONS:

1. All chemotherapy solutions should be premixed in a controlled setting under a laminar flow hood (done in a pharmacy setting).
2. Syringes and IV sets with luer-lock type fittings are to be used to prevent separation and spills.
3. Separate syringes are to be used for each prepared chemotherapy solution.
4. Nurses performing this procedure should have successfully completed an agency-approved chemotherapy course prior to the administration of IV chemotherapeutic agents.
5. Chemotherapy protocols are individualized.
6. Specific orders for each chemotherapeutic dose must be obtained from the physician prior to administration. Verbal or telephone orders for chemotherapy should be discouraged. Follow agency policy regarding use of consent forms.
7. Laboratory data should be reviewed and approved for hematopoietic safety 24 to 48 hours prior to the time of chemotherapy administration.
8. Prior to administration of each new antineoplastic drug, instruct patient about the drug, type, method of administration and possible side effects.
9. Some medications are potent vesicants that may cause severe tissue damage if extravasation occurs. Be prepared to administer prompt treatment. (See *Infusion Therapy – Infiltration and Extravasation.*)
10. Investigative research continues on the necessary precautions to be taken for safe handling of antineoplastic agents. Follow precautions as well as individual agency policy.
11. All tubes and catheters must be labeled to prevent the possibility of tubing misconnections. Staff should emphasize to all patients the importance of contacting a clinical staff member for assistance when there is an identified need to disconnect or reconnect devices.

EQUIPMENT:

Disposable gloves (powder-free and that have been tested for use with HDs)
Disposable gown (lint-free, low-permeability fabric with a closed front, long sleeves, and elastic or knit closed cuffs)
Plastic face shield or splash goggles
Supplies specific to each type of drug, route of administration, and type of venous access
Impervious trash bag, labeled cytotoxic or hazardous waste
Puncture-proof container
Alcohol wipes
Antimicrobial wipes
Commercially prepared chemotherapy spill kit
Extravasation kit, if indicated

Self-adhesive bandage

PROCEDURE:

1. Use two patient identifiers.
2. Adhere to Standard Precautions.
3. Explain procedure to patient.
4. Don protective garments, disposable gown, gloves, etc.
5. Assemble supplies and equipment.
6. *IV administration of a chemotherapeutic agent through a central venous catheter:*
 - a. Cleanse **injection** port with antimicrobial wipe
 - b. Attach syringe and open tubing clamp, if used
 - c. Check catheter for blood return
 - d. Flush catheter tubing with 5 mL normal saline
 - e. Infuse chemotherapeutic agents either IV push or IV infusion, as prescribed. Flush tubing with 5-10 mL normal saline after administration of each drug
 - f. After all chemotherapy has been given, flush central venous catheter with 10 mL normal saline and heparinize catheter as ordered by physician
7. *IV administration of a chemotherapeutic agent through an implanted vascular access device (IVAD):*
 - a. If non-coring needle and extension tubing are not in place, access IVAD according to procedure *Infusion Therapy – Central Line: Implanted Port*
 - b. Cleanse injection port of extension tubing with antimicrobial wipe
 - c. Attach syringe and open tubing clamp
 - d. Confirm non-coring needle placement by obtaining a blood return. Flush tubing with 5 - 10 mL normal saline
 - e. Infuse chemotherapeutic agents either IV push or IV infusion, as prescribed. Flush with 5-10 mL normal saline after each drug administration
 - f. After all chemotherapy has been given, flush with 10 mL normal saline and heparinize IVAD, as ordered by physician
8. Discard soiled supplies in appropriate containers.

AFTER CARE:

1. Document in patient record:
 - a. Medication administered, dose, time, rate and route
 - b. Type and appearance of venous access site
 - c. Type of blood return and frequency of assessing blood return
 - d. Instructions given to patient/caregiver
 - e. Communication with physician
2. Report of blood values is to be placed in patient chart.

REFERENCE:

American Society of Health- System Pharmacists. ASHP Guidelines on Handling Hazardous Drugs. AmJ Health-System Pharm, 2006; 63:1172-1193

Oncology Nurses Society (ONS). Personal Protective Equipment. Retrieved from <http://www.ons.org/ClinicalResources/SafeHandling/PersonalProtectiveEquipment>

Polovich M, Whitford J, Olsen m, ed Chemotherapy and Biotherapy Guidelines and Recommendations for Practice. 3rd Ed. Pittsburgh, PA. Oncology Nurses Society; 2009.

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