

PROTOCOL FOR: Chemotherapy Administration: Care of the Patient Receiving
Chemotherapy

- POLICY:
1. Chemotherapy agents can be administered by the following nursing staff:
 - a. RN credentialed by John Dempsey Hospital, Department of Nursing in Chemotherapy Administration.
 - b. RNs not credentialed for Chemotherapy Administration may administer subsequent (not first doses) for non-vesicant agents.
 2. All vesicant drugs administered IVP or by infusion must be administered by a RN credentialed in Chemotherapy Administration.
 3. All first doses of chemotherapy for each admission of a patient must be administered by a chemotherapy credentialed RN. Subsequent doses of non-vesicant agents may be administered by non-credentialed RNs.

4. Commonly used vesicant drugs: (generic names)

Dactinomycin	Mechlorethamine
Daunorubicin	Vinblastine
Doxorubicin	Vincristine
Mitomycin-C ¹³	Vindesine

DESIRED

- PATIENT OUTCOMES:
1. The patient will exhibit minimal side effects from bone marrow suppression.
 2. Patient's nutritional status will be maintained as evidenced by maintenance of weight.
 3. Patient will experience minimal nausea and vomiting.
 4. Patient will not experience bleeding associated with unsafe environment or trauma.

ASSESSMENT AND
GENERAL NURSING

- CARE:
1. Infection (Neutropenia):
 - a. Monitor VS every 4 hours or per MD order or more often as patient's clinical condition warrants.
 - b. Monitor WBC and ANC (Segs + BANDS x WBCs = ANC's).
 - c. Auscultate lungs with vital signs; institute appropriate breathing exercises if indicated.
 - d. Inspect all body sites associated with high risk for infection (wounds, oral cavity, peri-rectal area, skin

PROTOCOL FOR: Chemotherapy Administration: Care of the Patient Receiving Chemotherapy

- folds and any body orifices, intravenous sites, etc.) daily.
- e. Be aware of medications received by patient that mask signs and symptoms of infections (steroids, antipyretics).
 - f. Observe for these specific signs and symptoms of infection every 4 hours/PRN:
 - 1) Temperature > 100.5° F
 - 2) Flushing, diaphoresis
 - 3) Shaking chills
 - 4) White patches in oral cavity
 - 5) Redness, swelling, heat and/or pain of eyes, ears, throat, skin, joints, abdomen and perirectal areas
 - 6) Productive or non-productive cough/tachypnea/dyspnea
 - 7) Changes in character and/or color of urine, stool and sputum
 - 8) Urinary frequency/burning
 - 9) Flu-like symptoms
 - 10) Rash
 - g. Initiate treatment for identified/suspected infection as ordered, i.e., obtain cultures, administer prescribed antibiotics and antipyretics.
 - h. Prevent patient exposure to known source of infection.
 - 1) Persons with recent or current infections should not visit patient (instruct patient and family members).
 - 2) Use meticulous hand-washing technique. Instruct patient/visitors to follow this procedure.
 - 3) DO NOT take temperature by rectum. DO NOT administer suppositories.
 - 4) Instruct patient to maintain meticulous personal hygiene including daily bathing (shower preferred), perineal care and oral hygiene routine. Initiate sitz baths as needed.
 - 5) Avoid use of vaginal tampons.
 - 6) Change intravenous tubing every 24 hours.
 - 7) Keep bone marrow aspiration/biopsy sites covered and dry for 24 hours after procedure. Remove dressing after 24 hours and inspect area for inflammation.
 - 8) Neutropenic precautions as per MD order.
2. Bleeding (Thrombocytopenia):
- a. Monitor for platelet count < 20,000/mm³ PRN.
 - b. Monitor for signs of minor bleeding every 4 hours.
 - 1) Petechiae
 - 2) Ecchymoses

PROTOCOL FOR: Chemotherapy Administration: Care of the Patient Receiving
Chemotherapy

- 3) Conjunctival hemorrhages
 - 4) Epistaxis
 - 5) Bleeding gums
 - 6) Guaiac - positive emesis
 - 7) Heme - positive urine
 - 8) Guaiac - positive stools
 - 9) Vaginal spotting
 - 10) Bleeding at puncture sites
- c. Monitor for signs and symptoms of serious bleeding every 4 hours.
- 1) Headache/change in neurological signs
 - 2) Blurred vision, loss of part/all of visual field
 - 3) Hemoptysis
 - 4) Hematemesis
 - 5) Melena
 - 6) Hypotension/tachycardia/orthostatic changes/dizziness
 - 7) Uncontrolled vaginal bleeding
- d. Monitor platelet count as ordered.
- e. Institute precautionary measures.
- 1) Maintain type and cross-match.
 - 2) Determine if blood products are readily available.
 - 3) Do not administer aspirin or aspirin-containing products.
 - 4) No rectal temperatures, suppositories (rectal or vaginal) or tampons.
 - 5) Apply pressure to puncture site(s) for 5 minutes or until bleeding ceases. Apply sandbag to bone marrow biopsy site if platelet count $< 20,000/\text{mm}^3$.
 - 6) Avoid traumatic or invasive procedures including suctioning, cupping, chest clapping, enemas, douches or IM injections.
 - 7) Provide foam sticks (toothettes) or cotton gauze sponges to clean teeth.
 - 8) Lubricate lips and nostrils PRN.
 - 9) Maintain safe environment.
3. Mouthcare:
- a. On admission, assess oral cavity for baseline status.
 - b. Obtain dental history including:
 - 1) Oral care habits
 - 2) Previous complications
 - c. In collaboration with physician, refer to dental clinic for any mouth problems prior to chemotherapy.
 - d. Provide patient instruction regarding oral self-examination and self oral hygiene measures.

PROTOCOL FOR: Chemotherapy Administration: Care of the Patient Receiving
Chemotherapy

- e. Monitor patient compliance with self oral hygiene after meals and at bedtime. (If the patient is unable to provide self care hygiene, the nurse and/or family member will provide oral hygiene for the patient.)
 - f. Patients will perform mouth care after meals and at bedtime.
 - g. General oncology patient will remove dentures, retainers, or bands for at least 8 hours daily (it is preferable to do so at bedtime). BMT patients should not wear dentures unless approved by MD and/or Dentists.
 - h. Instruct patient to report the following to nurse or physician:
 - 1) Mouth tenderness, dry mucous membranes, white plaque, decreased saliva, difficulty in swallowing, or dry lips with reddened areas.
 - i. Monitor patient's mouth every 12 hours.
4. Fluid Balance (Prevent/minimize fluid volume deficit):
- a. Administer prescribed antiemetic and evaluate effectiveness.
 - b. Provide oral fluids as tolerated.
 - c. Consult with physician regarding institution of parenteral therapy.
 - d. Strict intake and output monitoring.
 - e. Obtain daily weights on patients as ordered.
 - f. Assess for orthostatic blood pressure and pulse as ordered. If patient is orthostatic, monitor every 4 hours or more or as indicated. If patient is not orthostatic, monitor every 8 hours.
 - g. Inspect oral cavity for dryness.
5. Nutrition:
- a. Assess nutritional status prior to treatment.
 - b. Monitor nutritional labs; daily weights.
 - c. Collaborate with Registered Dietitian. Monitor calorie counts as needed.
 - d. Provide small frequent high protein and high calorie meals. Dietary supplements as needed.

PROTOCOL FOR: Chemotherapy Administration: Care of the Patient Receiving Chemotherapy

- e. Monitor dietary intake every shift.
- f. Encourage intake with an attitude of gentle, persistent encouragement, many patients prefer not to eat during chemotherapy.
- g. Explain to patient and family that a change in taste and an aversion to food are common responses to disease and treatment.
- i. Assess the need for tube feeding or hyperalimentation support.

6. Nausea, Vomiting and Diarrhea:

- a. Administer prescribed antiemetic half an hour prior to chemotherapy, meals, and PRN as ordered.
- b. Evaluate effectiveness of antiemetic and consult physician when adjustments are indicated.
- c. Allow for adequate rest periods, especially after nausea/vomiting episodes.
- d. Remove unpleasant odors/sounds and sights from environment.
- e. Encourage/provide mouth care.
- f. Limit excessive activity.

- PATIENT TEACHING:
- 1. See "Teaching Plan For: AML/ALL: Newly Diagnosed Patient and/or Patient Receiving Chemotherapy".
 - 2. Refer to Clinical Pharmacist for teaching regarding chemotherapy agents, precautions while receiving chemotherapy agents, and side effects of these agents.

REPORTABLE
CONDITIONS:

Notify MD if:

- 1. Any sudden change in VS.
- 2. Sudden onset of restlessness, shortness of breath, chills, diaphoresis, chest pain, numbness, or any other potential side effect of chemotherapy.

- SAFETY MEASURES:
- 1. Women of childbearing age should be placed on hormonal therapy (BCP) prior to chemotherapy administration.

PROTOCOL FOR: Chemotherapy Administration: Care of the Patient Receiving
Chemotherapy

2. As appropriate, men should be informed about sperm banking prior to chemotherapy administration.
3. All chemotherapy must be checked by two RN's. You must check the written order in the chart and the MAR. Both RN's must sign off in the MAR.
4. Review appropriate lab work as ordered prior to chemotherapy. Results must be reported to physician and oncology nurse prior to chemotherapy administration.
5. Gloves must be worn when administering all chemotherapy. Discard chemotherapy containers in appropriate Red Bag Waste containers.
6. Refer to protocol specific to type of chemotherapy prior to administration of chemotherapy.

DOCUMENTATION: 1. Document assessments and interventions on the unit flowsheet, MAR and Infusion Record.

2. Document patient response to care in patient Progress Notes per Unit/Department Documentation Standards.

Approval: Medical-Surgical Standards Review
Nursing Standards Committee

CREDENTIALS: RN

EFFECTIVE DATE: 2/92

REVISION DATES: 2/94, 12/97

Note: this document was in the Med/Surg Unit Practice Manual. December 1997 it was transferred to the Oncology Services Unit Practice Manual.