

PROTOCOL FOR: Neutropenia: Care of the Oncology Patient with

SUPPORTIVE DATA: Patients undergoing chemotherapy or radiation routinely experience neutropenia and consequently are very susceptible to infection during their hospitalization. Infection is one of the greatest cause of morbidity and mortality in cancer patients. Infection prevention, therefore, is an important aspect of the medical and nursing management of the oncology patient.

The regimen of chemotherapy and/or radiation therapy used to kill malignant cells causes neutropenia. Because the leukocyte count is extremely low, often, the patient is unable to mount an inflammatory response. Consequently, the usual signs and symptoms of infection are minimal or even absent which hinders early and accurate diagnosis of an infectious process. When caring for the neutropenic patient, it is essential to adhere to the established neutropenic guidelines and to continually and thoroughly assess the patient for infection.

**DESIRED PATIENT
OUTCOMES:**

1. The patient/family will state factors that put the patient at risk for developing an infection.
2. The patient/family will comply with the neutropenic protocol.
3. The patient will experience absence of or minimal signs and symptoms of infection.

**ASSESSMENT
GENERAL**

NURSING CARE:

1. Provide daily patient personal hygiene.
2. Assess skin for erythema, dryness, rash, lesions, breakdown, swelling, tenderness/pain. Pay particular attention to areas of high potential for infection (skin folds of buttocks, axillae, perineum, breasts, uncircumcised males).
3. Change central line dressing and inspect site daily per protocol.
4. Provide and monitor oral hygiene as per protocol.
5. Assess oral mucosa for mucositis.
6. Monitor and record vital signs every 4 hours and more frequently as clinically indicated.
7. Obtain blood cultures for temperature as ordered by physician.
8. Monitor white blood cell (WBC) count and absolute neutrophil count (ANC) as ordered.
9. Administer antibiotics immediately after ordered by the physician.
10. Avoid indiscriminate use of anti-pyretics.
11. Support optimal nutritional status.
12. Encourage oral fluids.

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13. Encourage activity (self-care, out of bed, PT exercises).
14. Initiate neutropenic precautions:
 - a. No rectal temperatures, suppositories, enemas.
 - b. No IM or SC injections.
 - c. No routine peripheral blood cultures.
 - d. Avoid routine invasive procedures (indwelling urinary catheters, venipunctures, naso-gastric tubes, suctioning).
 - e. Assure that sterile technique is used for absolutely necessary invasive procedures (skin, liver or rectal biopsy; LP; ABGs; bone marrow aspirate and biopsy).
 - f. Use sterile technique when changing any dressing, wound or invasive site care.
 - g. All health care professionals and visitors who have direct contact with the patient must be free of illness or other potentially contagious conditions (upper respiratory infection, fever, rashes, open/draining cuts).
 - h. Maintain visitor restrictions (see ONCOLOGY 6 protocol for Visitor Guidelines).
 - i. No fresh flowers or plants are allowed on the ONCOLOGY 6.

- PATIENT TEACHING:
1. Review risk factors for infection (neutropenia secondary to conditioning therapy and/or immunosuppressive therapy, impaired skin and mucous membranes, antibiotic therapy).
 2. Review neutropenic precautions.

REPORTABLE
CONDITIONS:

- Notify the physician for:
1. Temperature 100.5° F or greater.
 2. Chills and/or rigors.
 3. Changes in vital signs (tachycardia, tachypnea, hypotension).
 4. Respiratory symptoms: cough, sputum production, dyspnea, tachypnea, altered breath sounds, nasal congestion/sinus pain, sore throat.
 5. GI symptoms: increased nausea/vomiting/diarrhea, abdominal discomfort/pain.
 6. GU symptoms: dysuria, frequency, hematuria, foul smelling urine, cloudy/sediment containing urine.
 7. Vaginal itching, burning, discharge.
 8. Skin manifestations: erythema, swelling, drainage, tenderness/pain, impaired skin, mucous membranes.
 9. Oral cavity: erythema, leukoplakia, swelling, dysphagia, lesion/ulcer, tenderness/pain.
 10. Rectal itching, burning, discharge, pain.
 11. Neurological changes: headache, blurred/double vision, pupillary changes, lethargy, behavioral changes, decreased level of consciousness.

- DOCUMENTATION:
1. Document assessment findings and interventions on the unit flowsheets, MAR and Infusion Record.

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2. Document patient response to care in the Progress Notes using focus format.

APPROVAL: Nursing Standards Committee

EFFECTIVE DATE: 8/89

REVISION DATES: 4/91, 1/92, 1/95, 9/96, 3/99, 10/00, 3/02