



**SNS COLLEGE OF NURSING**

**SARAVANAMPATTI, COIMBATORE-35**



**DEPARTMENT OF MEDICAL &  
SURGICAL NURSING**

**COURSE NAME : BSC (NURSING) III  
YEAR**

**SUBJECT : MSN II**

**UNIT VI: ONCOLOGY**

**TOPIC : THERAPIES**



# INTRODUCTION





# Oncology: Nursing Management in Cancer Care



- **Radiation dosage:**
  - Depend on the target tissue sensitivity to radiation, and on the tumor size
  - **Lethal tumor dose:** is the dose that will eradicate 95% of tumor yet preserve normal tissue
  - It delivered over several weeks to allow healthy tissue to repair, and to achieve greater cell kill



# Nursing Care of the Patient Undergoing Radiation Therapy

- Patient and family education
- Include restrictions and precautions
- Skin care
- Oral care
- Protection of care providers



# Toxicity from radiation therapy



The effect:

- Altered skin integrity (alopecia, erythema)
- Altered oral mucosa (stomatitis, xerostomia (mouth dryness, change & taste loss, decrease salivation)
- Esophageal irritation with chest pain and dysphasia
- Anorexia, nausea and vomiting & diarrhea
- Anemia, leukopenia and thrombocytopenia
- Fatigue and malaise



## Nursing management in radiation therapy

- The nurse explain the procedure for delivering radiation, describe the equipment, duration of procedure, possible need for immobilization
- If implant is used the nurse informs pt and family about restrictions placed on visitors
- Explain to the pt his role before, during and after procedure
- Assess pt skin, nutritional status, oral mucosa for change
- Pt skin protected from irritation and instructed to avoid using ointment, lotions or powder on the area
- Provide oral hygiene to remove debris and promote healing
- If pt feel fatigue assist him in activity of daily living
- Explain that fatigue and malaise are S\E from Rx and not indicate deterioration
- Explain purpose from isolating pt

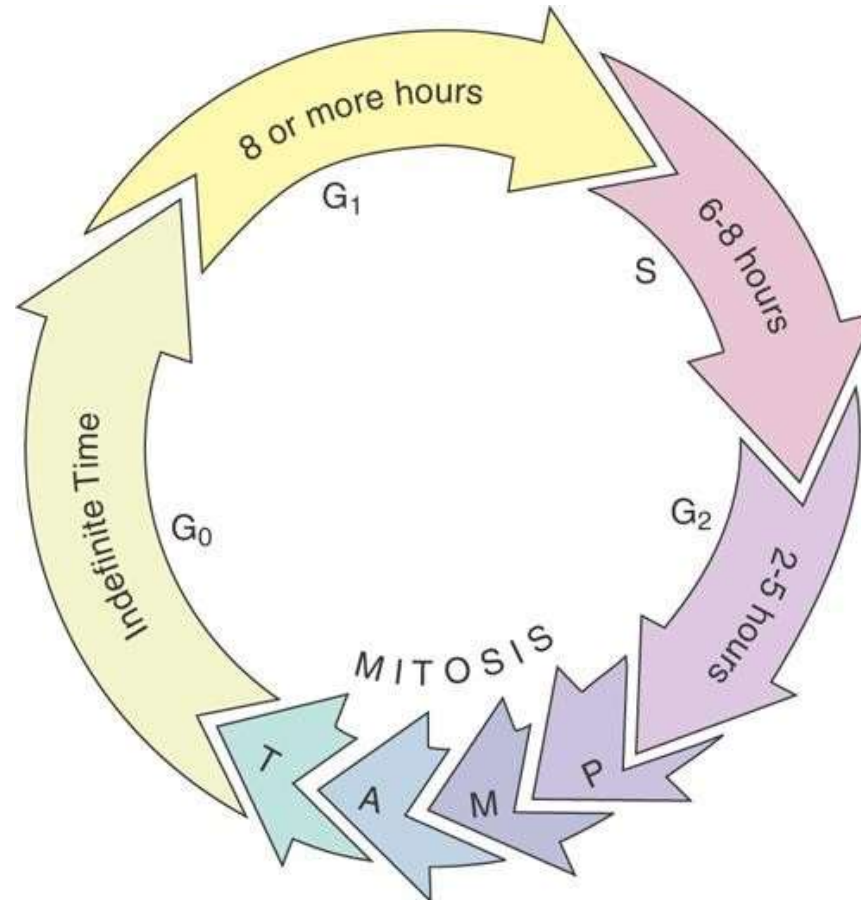


# Chemotherapy

- Agents used to destroy tumor cells by interfering with cellular function and replication
- Curative, control, or palliative
- Used to treat systemic disease rather than localized lesion.
- It administer in coordination of cell cycle
- Cell cycle time: time required for one cell to divide and reproduce 2 identical daughter cells



# Phases of Cell Cycle



# Classification of chemotherapy



- Cell cycle specific agent( specific to certain phase of cell cycle)
- Cell cycle non specific agents (act independently of cell cycle phase)
- It classified by chemical group as alkalizing agents, antimetabolites, antitumor antibiotics, hormonal agent



# Chemotherapy Roles and Chemotherapeutic Agents





# Administration of Chemotherapy

- Routes of administration
- Problem of extravasation
- Increased risk for fluid and electrolyte imbalances
- Risk for infection
- Risk for bleeding
- Protection of caregivers  
See **Chart 16-7**
- See **Chart 16-5**



# Adverse Effects of Chemotherapy

- Toxicity
- GI effects: nausea and vomiting, diarrhea, mucositis, and stomatitis
- Hematopoietic effects: myelosuppression
- Renal damage
- Cardiopulmonary system: potential cardiac toxicities
- Reproductive system: potential sterility, potential reproductive cell abnormalities
- Neurologic effects



# Bone Marrow Transplantation (BMT)



- Used for hematologic cancers that affect the marrow or solid tumors, which are treated with a chemotherapy dosage that ablates the bone marrow
- Graft-vs.-host disease
- Venous occlusive disease



# Nursing process for pt with cancer



- **Assessment:**
  - Assess **factors promote infection** (chemotherapy, malnutrition, intravenous catheter, age, contaminated equipment,...)
  - Monitor lab test as **WBC's**
  - Assess S&S of infection
  - If **invasive catheter** is placed assess pt for sepsis
  - Assess pt for factors that may contribute to **bleeding** as ( chemotherapy, radiation, medications as aspirin, persentein, heparin)
  - Monitor pt for **hemorrhage**, melena, hematuria, hemoptysis, hematomesis, ecchymosis, and change in mental status. sputum or vomitus



- Assess the pt for any **skin problems**, note the presence of skin lesions or ulcerations, or lesions in the MM
- Note presence of **alopecia**, and assess it's psychological impact on the pt
- Assess pt **nutritional status** (if there is wt loss, cachexia (muscle wasting))
- Assess pt **diet history**, episode of anorexia, change in appetite, **difficulty in swallowing**, **presence of N,V&D**
- Assess source and site of **pain**
- Assess factors increase pt pain as fear, anger, fatigue, social isolation
- Assess for **chronic fatigue**, and assess stressors contribute to fatigue as ( pain, dyspnea, fear, anxiety, and constipation)





## Common Nursing Diagnoses

- Impaired oral mucosa
- Impaired tissue integrity
- Imbalanced nutrition
- Chronic pain
- Fatigue
- Disturbed body image
- Coping diagnoses and anticipatory grief



# Collaborative Problems



- Infection
- Bleeding
- Superior vena cava syndrome
- Hypercalcemia
- Spinal cord compression
- Pericardial effusion
- Disseminated intravascular coagulation (DIC)



# Hospice

- Comprehensive, multidisciplinary approach to the care of patients with terminal illness and their families
- Focuses upon:
  - Quality of life
  - Palliation of symptoms
  - Psychosocial and spiritual care



# Oncologic Emergencies

- Superior vena cava syndrome
- Spinal cord compression
- Pericardial effusion and cardiac tamponade
- Disseminated intravascular coagulation (DIC)
- Syndrome of inappropriate secretion of antidiuretic hormone
- Tumor lysis syndrome



# REFERENCES

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