Oncological Disorders NCLEX Review

Oncological Disorders

Cancer a malignant neoplastic disorder that can involve all body organs with manifestations that vary according to the body system affected and type of tumor cells.
Effects:

- Impaired immune and hematopoietic (blood producing) function
- Altered gastrointestinal tract structure and function
- Motor and sensory deficits
- Decreased respiratory function

Cancer classification

- **Solid tumors:** Associated with the organs from which they develop, such as breast cancer or
  lung cancer
- **Hematological cancers:** Originate from blood cell–forming tissues, such as *leukemias, lymphomas*, and multiple *myeloma.*

Factors that influence cancer development

Environmental contributor

- *Chemical carcinogen:* Industrial chemicals, medications, and tobacco. *Physical carcinogen:* Ionizing radiation and ultraviolet radiation
- *Viral carcinogen:* Epstein-Barr virus, hepatitis B virus, and human papillomavirus (HPV). *Helicobacter pylori infection* increased risk of gastric cancer.
  Obesity and dietary factors
  Genetic predisposition
  Advancing age
  Immunosuppressed individuals (e.g. HIV-AIDS, and organ transplant recipients)

Warning signs: " C A U T I O N U S"

? **C**hange in bowel or bladder habits
? **A**ny sore that does not heal
? **U**nusual bleeding or discharge
? **T**hickening or lump in breast or elsewhere
? **I**ndigestion
? **O**bvious change in wart or mole
? **N**agging cough or hoarseness

? **U**nusual anemia
? **S**udden weight loss

Diagnostic Tests

Biopsy is the definitive means of diagnosing cancer and provides histological proof of malignancy.

Common types:

1. *Needle:* Aspiration of cells
   b. *Incisional:* Removal of a wedge of suspected tissue from a larger mass
   c. *Excisional:* Complete removal of the entire lesion

Frozen Section (Cryosection)
> ***Time:*** Fast result (minutes)
> ***Quality:*** Lower quality result

Permanent Paraffin Section
> ***Time:***Takes about 24hrs for the result
> ***Quality:*** Clearer details can be obtained

Nursing Interventions:

a. Prepare the client for the diagnostic procedure
b. Obtain informed consent.
c. Provide post procedure instructions *(*Pain management)*.

Causes of pain:

Bone destruction
Obstruction of an organ
Compression of peripheral nerves
Infiltration
Inflammation, necrosis
Psychological factors, such as fear or anxiety

"*Assess the client's pain. Do not under medicate the client with cancer who is in pain."*

***Pain Management:**

Severity of Pain	Pharmacologic Tx	Nonpharmacologic Tx
Mild to Moderate	• Salicylates, • Acetaminophen • Paracetamol • Nonsteroidal Antiinflammatory Drugs *(NSAIDs)*	• Relaxation (e.g.Deep breathing exercises, meditation, yoga) • Guided imagery • Biofeedback • Massage • Heat-cold application
Severe	• Codeine sulfate • Morphine sulfate • Methadone • Hydromorphone hydrochloride	• Monitor V/S • Collaborate with other healthcare team members and HCP

2. Bone marrow examination (particularly if a hematolymphoid malignancy is suspected)
3. Chest radiograph
4. Complete blood count (CBC)
5. Computed tomography (CT)
6. Cytological studies (Papanicolaou test)
7. Liver function studies
8. Magnetic resonance imaging (MRI)
9. Proctoscopic examination (including guaiac test for occult blood)
10. Radiographic studies (mammography)

Treatments

Sugery indicated to diagnose, stage,and treat certain types of cancer. Decreases the number of cancer cells; therefore, it may increase the chance that other therapies will be successful.

Types:

Prophylactic surgery: performed in clients with an existing premalignant condition that strongly predisposes to the development of cancer.
Curative surgery: All gross and microscopic tumor is removed or destroyed.
*Control (cytoreductive or "debulking") surgery:*consists of removing a large portion of a locally invasive tumor.
Palliative surgery: performed to improve quality of life during the survival time.
*Reconstructive or rehabilitative surgery: P*erformed to improve quality of life by restoring maximal function and appearance, such as breast reconstruction after mastectomy.

Adverse effects of surgery

1. Loss or loss of function of a specific body part
2. Reduced function as a result of organ loss
3. Grieving about altered body image
4. Pain, infection, bleeding, thromboembolism

Chemotherapy kills or inhibits the reproduction of neoplastic cells and kills normal cells.

Common side effects:

- **I**mmunosuppression
- **M**ucositis
- **F**atigue
- **A**lopecia
- **N**ausea and vomiting

General Nursing Interventions:

Physiological Integrity	Safe and Effective Care Environment	Psychosocial Integrity	Health promotion and maintenance
Monitor CBC, BUA, electrolytes	Prepare IV chemotherapy in an air-the	Instruct the client about the possibility	*Diarrhea:* avoid spicy offoods, high-fiber foods,

	vented space	temporary hair loss	and foods that are hot in temperature
Initiate bleeding precautions if thrombocytopenia *(PC <50,000 mm3)* occurs.	Wear personal protective equipment; *gloves, gown, mask, eye shield*	Discuss the purchase of a wig before treatment starts	Carry out *good oral hygiene*
Avoid intramuscular injections and venipunctures as much as possible	Monitor for phlebitis with IV administration	Discuss the potential effect of *infertility*, which may be irreversible.	Avoid over crowded places and sick people
Monitor for fever, sore throat, and signs and symptoms of *infection*	Monitor for skin breakdown	Instruct the client about the need for *contraception*	Bleeding precautionary measures
Monitor for nausea and vomiting	Reduce IV site pain by altering IV rates or warming the injection site		Consult the HCP before receiving *vaccinations* (live vaccines)
DIET: high-caloric, high protein			
Administer antiemetics several hours before chemotherapy and for **12 to 48 hours** after as prescribed	Notify the HCP if symptoms persist		
Increase OFI; at least **2L/day**			

Treatments:

Types	Positive	Negative	Nursing Care
Radiation Therapy	• Destroys cancer cells, with minimal exposure of normal cells to the damaging effects of radiation. • Effective on tissues directly within the path of the radiation beam.	• ***Lo**cal skin changes and irritation* • ***A**lopecia (hair loss)* • ***F**atigue (most common side effect of radiation)* • ***A**ltered taste sensation;*	*General care:* • Wash the irradiated area gently each day with mild soap and water. • Use the hand rather than a washcloth to wash the area. • Do not remove the markings that indicate exactly where the beam of radiation is to be focused. • Dry the

			irradiated area with patting motions; use a clean, soft towel or cloth. • **NO** powders, ointments, lotions, or creams on the radiation site unless they are prescribed by the HCP. • Wear soft clothing • Avoid wearing belts, buckles, straps, or any type of clothing that binds or rubs the skin at the radiation site. • Avoid heat exposure to the sun.
Brachytherapy	• The radiation source comes into direct, continuous contact with tumor tissues for a specific time.	• For a period of time, the client emits radiation and can pose a hazard to others	*The same care*
Subtype: *Unsealed Brachytherapy*	------	• Not confined completely to one body area, and it enters body fluids and eventually is eliminated via various excreta, which are radioactive and harmful to others.	*The same care*
Sealed Brachytherapy	• Temporary or permanent radiation source (solid implant) is	• The client emits radiation while the implant is in place, but the	Place the client in a private room with a private bath.

	implanted within the tumor target tissues.	excreta are not radioactive.	Place a radiation precaution sign on the client's door. Organize nursing tasks to minimize exposure to the radiation source. Nursing assignments should be rotated. Limit time to 30 minutes per care provider per shift. Wear a dosimeter film badge to measure radiation exposure. Lead shielding may be used. Limit visitors to 30 minutes per day; visitors should be at least *6 feet away* from the source. Save bed linens and dressings until the source is removed; ***Prioritization!*** *Sealed Radiation Implant that Dislodges:* *1. Encourage the client to lie still.* *2. Use a long-handled forceps to retrieve the radioactive source.* *3. Deposit the radioactive source in a lead container.* *4. Contact the radiation oncologist.* *5. Document the occurrence and the actions taken.*
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External beam radiation	• The actual	• Burn injuries	*The same care*

(teletherapy)	radiation source is external to the client. • The client does not emit radiation and does not pose a hazard to anyone else.	• Skin breakdown • Erythema on site

Bone marrow transplantation (BMT) and Peripheral blood stem cell transplantation (PBSCT) procedures that replace stem cells that have been destroyed by high doses of chemotherapy and/or radiation therapy.

Types of donor stem cells

1. **Allogeneic:** Stem cell donor is usually a sibling, a parent with a similar tissue type, or a person who is not related to the client (unrelated donor).
2. **Syngeneic:** Stem cells are from an identical twin.
3. ***Autologous*** *most common type.*
a. The client receives his or her own stem cells.
b. Stem cells are *harvested during disease remission* and are stored frozen to be reinfused later.

Procedure

1. Harvest

- ***Apheresis or leukapheresis*** (the blood is removed through a central venous catheter and an apheresis machine removes the stem cells and returns the remainder of the blood to the donor). **Length of time: 4-6hrs**
- Harvested through multiple aspirations from the iliac crest.
- Filtered for residual cancer cells.
- **Allogeneic marrow** is *transfused immediately;* **autologous marrow** is *frozen for later use (cryopreservation).*

2. Transplantation

- Administered through the client's central line (IV infusion or by IV push) in a manner similar to that for a blood transfusion.

4. Engraftment

- Occurs when the white blood cell (WBC), erythrocyte, and platelet counts begin to **rise.**
- Engraftment process takes **2 to 5 weeks.**

Complications

- Infection
- Bleeding
- Neutropenia (Decrease neutrophil count)
- Thrombocytopenia (Decrease platelet count)
- Graft-versus-host disease
- ***Hepatic veno-occlusive disease*** occlusion of the hepatic venules by thrombosis or phlebitis. S/sx: *Right upper quadrant abdominal pain, jaundice, ascites, weight gain, and hepatomegaly.*

Leukemia

A group of hematological malignancies involving abnormal overproduction of leukocytes, usually at an immature stage, in the bone marrow.

Major types:

1. ***Lymphocytic*** (involving abnormal cells from the lymphoid pathway)
2. ***Myelocytic or myelogenous*** (involving abnormal cells from the myeloid pathways).

Classification of Leukemia

1. Acute Lymphocytic Leukemia
? Mostly lymphoblast present in bone marrow
? Age of onset is younger than 15 years.

2. Acute Myelogenous Leukemia
? Mostly myeloblast present in bone marrow
? Age of onset is between 15 and 39 years.

3. Chronic Myelogenous Leukemia
? Mostly granulocytes present in bone marrow
? Age of onset is in the fourth decade

4. Chronic Lymphocytic Leukemia
? Mostly lymphocytes present in bone marrow
? Age of onset is after 50 years

Signs and Symptoms:

Headache
Bone pain and joint swelling
WBC count (normal, elevated, or reduced)
Decreased hemoglobin and hematocrit levels, platelet count
Anorexia, fatigue
Anemia
Overt bleeding
Positive bone marrow biopsy identifying leukemic blast–phase cells

Interventions:

1. Initiate protective isolation procedures.
2. Ensure frequent and thorough hand washing by the client, family, and HCPs.
3. Visitors with known infection should avoid contact with the client.
4. Use strict aseptic technique for all procedures.
5. Place the client in a room with high-efficiency particulate air filtration or a laminar airflow system if possible.
6. Initiate a bowel program to prevent constipation and prevent rectal trauma.
7. Auscultate lung sounds, and encourage the client to cough and deep-breathe.
8. Instruct the client to avoid activities that expose the client to infection, such as changing a pet's litter box or working with house plants or in the garden.
9. Reduce exposure to environmental organisms by eliminating fresh or raw fruits and vegetables
   (low-bacteria diet) from the diet; and *avoid leaving standing water i*n the client's room.
10. Monitor for signs of bleeding tendencies.
11. Emphasize safety measures and precaution.
12. Emphasize the importance of a healthy lifestyle modification.

Lymphoma: Hodgkin's Disease is a malignancy of the lymph nodes that originates in a single lymph node or a chain of nodes.

Involvement:

- Lymph nodes
- Tonsils
- Spleen
- Bone marrow

Risk Factors:

- Viral infection
- Combined chemotherapy

Signs and Symptoms:

- Fever
- Sudden anemia
- Presence of *Reed-Sternberg cells in* nodes
- Night sweats
- Body malaise

Nursing considerations:

- Extensive external radiation of the involved lymph node regions (earlier stage; 1 and 2)
- Radiation and multiagent chemotherapy (advance stage)
- **Refer to general oncological nursing care*

Multiple Myeloma invasion of proliferated malignant plasma cell inside the bone marrow that

destroys the bone.

Signs and Symptoms:

- Bone (skeletal) pain
- Weakness and fatigue
- Recurrent infections
- Anemia
- Urinalysis shows *Bence Jones* proteinuria and elevated serum protein level
- **Osteoporosis*
- Thrombocytopenia and leukopenia
- Elevated calcium and uric acid levels

Nursing considerations:

- Provide supportive care to control symptoms and prevent complications
- Maintain neutropenic and bleeding precautions
- Increase OFI; 2L/day
- Encourage mobility
- Take medications as prescribed (bisphosphonate, antibiotics, analgesics, antineoplastic agents)
- Prepare the client for local radiation therapy

Different types of Neoplastic Disease

Type of Cancer	Definition	Age variation	Signs and Symptoms	Treatment	Nursing care
Testicular Cancer	Arises from germinal epithelium, sperm-producing germ cells or from nongerminal epithelium	*15 - 40 years old*	• ***Early:*** Painless testicular swelling • "Dragging" or "pulling" sensation • Palpable lymphadenopathy • **Late:** back or bone pain and respiratory sympt	Orchiectomy	**Pre-op Care:** • Administer chemotherapy as prescribed. • Prepare the client for radiation therapy as prescribed. • Prepare the client for surgery • Discuss reproduction, sexuality,

oms.

and fertility information.

Post-op Care:

- Monitor VS, I & O, bleeding, signs of infection
- Monitor intake and output.
- Notify the HCP if chills, fever, increasing pain or tenderness at the incision site, or drainage from the incision occurs
- Instruct the client to avoid heavy lifting and strenuous activity.
- Perform a monthly testicular self-examination on the remaining testicle

					(the same day each month). * *Gynecomastia* may indicate metastasis.
Cervical Cancer	**Due to the abnormal growth of cells that have the ability to invade the cervix and other pelvic structures.**	25 - 29 years old	• Painless vaginal postmenstrual and post coital bleeding • Foul-smelling or serosanguineous vaginal discharge • Pelvic, lower back, leg, or groin pain • Anorexia and weight loss • Leakage of urine and feces from the vagina • Dysuria • Hematuria	*Nonsurgical:* ? Chemotherapy ? Cryosurgery ? External radiation ? Internal radiation implants (intracavitary) ? Laser therapy *Surgical:* ? Conization ? Hysterectomy ? Pelvic exenteration	**Pre-op Care:** • Provide information regarding the prcedure • Obtain informed consent • Identify anxiety level **Post-op Care:** • Monitor VS, I&O, bleeding, bowel sounds • Assist with coughing and deep-breathing exercises and early ambulation • Apply antiembolism stockings or sequential compression

				devices as prescribed. • **Avoid** strenuous activity or lifting anything **> 20 pounds (9 kg).**
Ovarian Cancer	Grows rapidly, spreads fast, and is oftenbilateral. It has a higher mortality rate than any other cancer of the female reproductive system.	*55 - 65 years old*	• Gastrointestinal disturbances • Dysfunctional vaginal bleeding • Abdominal mass • Elevated tumor marker (i.e., CA-125) • *External radiation therapy* • *Chemotherapy* • *TAHBSO*	** >1 saturated pad/hr = hemorrhage* *Similar care as to cervical cancer*

Endometrial (Uterine) Cancer	A slow-growing tumor arising from the endometrial mucosa of the uterus	> 60 years old	• Abnormal vaginal bleeding /discharge • **Late:** Low back, pelvic, or abdominal pain • **Advance:** Enlarged uterus	*Nonsurgical:* • External or internal radiation • Chemotherapy • Progesterone therapy • Tamoxifen *Surgical:* • TAHBSO
Breast Cancer	Invasive when it penetrates the tissue surrounding the mammary duct and grows in an irregular pattern.	> 40 years old	• Nipple retraction • Skin dimpling,retraction, or ulceration • *Peau* skin • A fixed, irregular, painless mass • Irregular in shape	*Nonsurgical:* • Chemotherapy • Radiation therapy *Surgical:* • Mastectomy (simple, modified radical) • Lumpectomy

Similar care as to cervical cancer

BSE:

- Perform regularly 7 to 10 days **after** menses.
- Postmenopausal clients or hysterectomy clients should perform BSE **regularly**

Post-op Care:

- Monitor vital signs.

- Position the client in a semi-Fowler's position;
- **Unaffected:** turn from the back; **NO** weight lifting
- **Affected**: elevate arm above the level of the heart
- Encourage coughing and deep breathing.
- Assist in doing fist pump exercise following surgery.
- Assess operative site regularly.
- Provide the use of a pressure sleeve as prescribed if edema is severe.
- Diet:

					Low salt (edema) ***PROTECT THE AFFECTED ARM***
Esophageal Cancer	A malignancy found in theold esophageal mucosa	40 - 74 years	• Dysphagia • Odynophagia • Epigastric pain Link	• Chemotherapy • Radiation therapy • Surgical resection of the tumor	• Monitor nutritional • Instruct the client about diet changes that make eating easier (Soft and high caloric diet)
Gastric Cancer	A malignant growth of the mucosal cells in the inner lining of the stomach	> 50 years old	**Early:** • Indigestion • Abdominal discomfort • Full feeling • Epigastric, back, or retrosternal pain **Late:** • **W**eakness and fatigue • **An**orexia and weight	• Chemotherapy • Radiation therapy • Gastrectomy: Total; Subtotal: Billroth I and II	• Monitor nutritional • ***DIET:*** Soft, small frequent meals, bland)

			loss • **N**ausea and vomiting • **P**ressure in the stomach • **A**scites • **I**ron deficiency anemia • **D**ysphagia and obstructive symptoms		
			Link		
Pancreatic Cancer	Highly malignant, rapidly growing adenocarcinomas originating from the epithelium of the ductal system	> 55 years old	• Clay-colored stools *"Acholic Stool"* • Glucose intolerance • Abdominal pain • Jaundice	*Nonsurgical:* • Chemotherapy • Radiation therapy *Surgical:* • Whipple procedure	• Monitor blood glucose levels (hyperglycemia or hypoglycemia) • Monitor nutritional status • ***DIET:*** Soft, high fiber, high protein, small frequent meals)
Intestinal Tumors	Malignant lesions that developing the cells lining the bowel wall or develop as adenomatous polyps in the colon or rectum	> 50 years old	• **Early:** Blood in stool *(most common manifestation)*	*Nonsurgical:* • Chemotherapy • Radiation therapy *Surgical:*	• Monitor for signs of complications, which include bowel perforation with p

- Anemia
- Weight loss

- **Late:** Guarding behavior, abdominal mass, cachexia (severe muscle wasting)

- Bowel, local lymph node resection
- Colostomy
- Ileostomy

eritonitis, abscess or fistula formation, hemorrhage

Pre-op Care:

- Instruct the client in prescribed preoperative diet;
- Intestinal antiseptics and antibiotics may be prescribed, to decrease the bacterial content of the colon

Post-op Care: Colostomy

- Ensure colostomy care
- Monitor the pouch system for proper fit and signs o fleakage; empty thepouch

when one third full
- Monitor the stoma for size, unusual bleeding, color changes, or necrotic tissue
- *Normal stoma color:* RED or PINK, indicating high vascularity.
- *Appearance:* Shinny, moist, no lessions, some bleeding is noted
- **Stool Characteristic by region (DATS)**
- ***D****escending colon:* Close to normal
- ***A****scending colon:*

Liquid
- ***T****ransverse colon:* Loose to semi-formed
- ***S****igmoid colon: semi-formed to formed*
- Administer analgesics and antibiotics as prescribed.
- Instruct the client on how to resume normal activities, including work, travel, and sexual intercourse, as prescribed; provide psychosocial support.

Post-op Care: Ileostomy

- *Healthy stoma:*

				is Red in color • *Postoperative dra in age:* darkgreen to yellow as the client begins to eat. • *Stool consistency:* Liquid. • Monitor for signs of dehydration and electrolyte imbalance
Lung Cancer	A malignant tumor of the bronchi and peripheral lung tissue. *Common target for metastasis from other organs.*	65 - 74 years old	• Wheezing • Dyspnea • Hoarseness • Hemoptysis • Blood-tinged or purulent sputum • Diminished breath sounds	Link *Nonsurgical:* • Chemotherapy • Radiation therapy *Surgical:* • Laser therapy • Thoracentesis • Pleurodesis • Thoracotomy • Lobectomy	• Monitor breathing patterns and breath sounds • Monitor for hemoptysis • Assess for tracheal deviation • ***DIET:*** high-calorie, high-protein, high

					vitamin diet • Administer bronchodilators and corticosteroids • Place in a Fowler's position • Monitor VS • Monitor bleeding, I&O, and respiratory status
Laryngeal Cancer	A malignant tumor of the larynx	> 50 years old	• Hoarseness • Painless neck mass • Feeling of a lump in the throat • Change in voice quality • Hemoptysis • Foul breath odor	*Nonsurgical:* • Chemotherapy • Radiation therapy *Surgical:* • Cordal stripping • Cordectomy • Laryngectomy (partial/total) • Tracheostomy	***Priority: Airway*** **Pre-op Care:** • Discuss self-care of the airway, overall support system • Encourage the client to express feelings about changes in body image • Describe the rehabilitation program needed during recovery

period

Post-op Care:

- Monitor respiratory status
- Assess gag and cough reflexes
- Reinforce method of communication (speech rehabilitation)
- Observe for hemorrhage and edema in the neck
- Monitor IV fluids or parenteral nutrition until nutrition is administered via a nasogastric, gastrostomy, or jejunostomy tube
- Reinforce information regarding stoma care

				following laryngectomy.
Prostate Cancer	A slow growing malignancy of the prostate gland; *common* cancer in American men	> 50 years old	• **Early:** Asymptomatic • Hard, pea-sized nodule (DRE) • Gross, painless hematuria • **Late:** Weight loss • Urinary obstruction • Bone pain (lumbosacral area to the leg)	*Nonsurgical:* • *Androgen suppression therapy* • Luteinizing hormone therapy • Radiation therapy • Chemotherapy *Surgical:* • Orchiectomy • Prostatectomy • Cryosurgical ablation • Transurethral resection of the prostate (TURP)	Link **Post-op Care:** • Monitor I&O (urine, bleeding or blood clots) • Increase fluids to ***2400 to 3000 mL/day*** • *Expected: red to light pink urine for 24 hours, amber in 3 days* • *Monitor for transurethral resection syndrome or severe hyponatremia **(water intoxication)**; S/Sx: HTN, Bradycardia, confusion, altered mental state*
Bladder Cancer	A papillomatous growth in the bladder		• *Painless hematuria	*Nonsurgical:* • Chemot	**Pre-op Care:** • Instruct

urothelium; noted malignant changes; infiltrates the bladder wall.	***(most common sign)*** • Frequency, urgency, dysuria • Clot-induced obstruction	herapy • Radiation therapy *Surgical:* • Cystectomy • TURP • Ileal conduit • Ureterostomy • Urostomy	the client regarding the diet, medications, nasogastric tube placement, IV lines, NPO status, pain control, coughing and deep breathing, leg exercises, and post operative activity • *Educate about stoma care* • Arrange an enterostomal nurse consult and for a visit **Post-op Care:** • Assess stoma (should be red and moist) every hour for the first 24 hours. • Monitor		

for edema in the st oma; ma y be present in the im mediate postoper ative period.
- Assess bowel function
- Monitor for bladder distentio n following a partial cystecto my
- Instruct theclient to asses stheskin for irritation, monitor the urinary drainage pouch, and report any leakage
- Provide emotion al assist ance

General Ostomy information:

Link

Link

Link

Oncological Emergencies

Sepsis is a life-threatening illness caused by your body's response to an infection.

Disseminated Intravascular Coagulation (DIC) is a condition in which blood clots form throughout the body, blocking small blood vessels.

Interventions:

- Early identification of clients at high risk for sepsis and DIC
- Maintain strict aseptic technique
- Administer antibiotics and anticoagulants as prescribed

Priority: Hemorrhage

Syndrome of inappropriate antidiuretic hormone (SIADH) causes the body to retain too much water by stimulating substances that mimic antidiuretic hormone.

Signs and Symptoms:

- Weakness
- Muscle cramps
- Loss of appetite
- Fatigue
- Hyponatremia
- **3Cs** (coma, confusion, changes in personality)

Interventions:

- ***DIET:*** Limit OFI, Increase Na intake
- Administer an antagonist to antidiuretic hormone
- Chemotherapy

Spinal Cord Compression occurs when a tumor directly enters the spinal cord or when the vertebral column collapses from tumor entry, impinging on the spinal cord.

Signs and Symptoms:

- Numbness

- Tingling
- Loss of urethral, vaginal, and rectal sensation
- Muscle weakness

Interventions:

- Administer high-dose corticosteroids
- Chemotherapy or Radiation therapy
- Use of neck or back braces

Hypercalcemia a late manifestation of extensive malignancy that occurs most often with bone metastasis.

Signs and Symptoms:

- Fatigue
- Anorexia
- Nausea and vomiting
- Constipation
- Polyuria

Interventions:

- Monitor serum calcium level and ECG changes (*shortened QT/ST interval, wide or flat T wave)*
- Administer oral or parenteral fluids as prescribed
- Prepare the client for dialysis if needed
- Encourage ambulation

Superior Vena Cava Syndrome occurs when the SVC is compressed or obstructed by tumor growth (commonly associated with lung cancer and lymphoma).

Signs and Symptoms:

- **Early:** Edema of the face esp. the eyes
- *Strokes' sign* (tightening of shirt or blouse collar)
- **Late:** Edema in the arms and hand
- Dyspnea
- Erythema of the upper body
- Epistaxis
- **Alarming signs:** Airway obstruction
- Hemorrhage
- Mental status change
- Decreased cardiac output
- Hypotension

Interventions:

- Place the client in semi-Fowler’s position

- Administer corticosteroids and diuretics as prescribed
- High-dose radiation therapy to the mediastinal area

Tumor lysis syndrome occurs when large quantities of tumor cells are destroyed rapidly and intracellular components such as K+ and BUA are released into the bloodstream faster than the body can eliminate them.

Signs and Symptoms:

- Hyperkalemia
- Hyperphosphatemia
- Hypocalcemia
- Hyperuricemia (acute kidney injury)

Interventions:

- Encourage oral hydration
- Monitor renal function and intake and output
- **DIET:** renal diet low in potassium and phosphorus
- Administer diuretics and antihyperuricemia meds as prescribed
- Prepare to administer IV infusion of glucose and insulin to treat hyperkalemia.
- Prepare the client for dialysis if needed.

Anaphylactic Reaction an acute allergic reaction to an antigen to which the body has become hypersensitive.

ASSESSMENT	SIGNS AND SYMPTOMS	PRIORITY INTERVENTIONS
		"ABC"
Obtain an allergy history	Dyspnea *(Tachypnea)*	***B:*** Assess *respiratory status*
Administer a test dose when prescribed	Chest tightness or pain	Stop the medication
Monitor vital signs	Pruritus or urticaria	Contact the health care provider (HCP) and the Rapid Response Team if necessary
	Tachycardia	***B:*** Administer oxygen
	Dizziness, LOC	Maintain the intravenous (IV) access with normal saline
	Anxiety or agitation	***C:*** Raise the client's feet and legs, if not contraindicated
	Flushed appearance	Administer prescribed emergency medications, such as epinephrine (Epi-pen, Prednisone, Diphenhydramine),
	Hypotension	Monitor vital signs
	Cyanosis	Document the event, actions taken, and the client's response