

# PATIENT CARE THEORY 2

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## UNIT 4, PART 1: Oncology

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# Oncologic Emergencies

causes of most emergencies 4 categories:

- ❖ Metabolic emergencies
- ❖ Hematologic emergencies
- ❖ Infectious and inflammatory emergencies
- ❖ Mechanical emergencies



# Oncologic Emergencies

## **Metabolic emergencies**

- ❖ Electrolyte imbalances, substrate deprivation
- ❖ Tumor lysis syndrome (TLS) is the most common
  - a metabolic triad of hyperuricemia, hyperkalemia, and hyperphosphatemia
  - Renal failure
  - symptomatic hypocalcemia
- ❖ Hypercalcemia, hyponatremia, hypoglycemia, adrenal failure, and lactic acidosis are relatively common



# Oncologic Emergencies

## **Hematologic abnormalities**

- ❖ abnormal hematopoiesis
  - Hyperviscosity due to dysproteinemia
  - Hyperleukocytosis
  - underproduction is less common (e.g. thrombocytopenia, neutropenia)
- ❖ DIC - Coagulopathy
  - hemorrhage, thrombosis, or both



# Oncologic Emergencies

## **Infections or inflammatory emergencies**

- ❖ Immunosuppression = primary underlying cause
- ❖ increased risk for acute life-threatening infections and acute inflammatory processes
  - direct result of disease, treatment, or both
- ❖ Infectious emergencies
  - bacteria, parasites, mycoplasmata, viruses, and/or fungi
  - Pneumonitis, pancreatitis, hemorrhagic cystitis, enterocolitis extravasation of chemotherapy agent



# Oncologic Emergencies

## **Mechanical emergencies**

- ❖ acute events that result from direct compression, obstruction, or displacement of vital tissues by a neoplastic process
- ❖ e.g. Neurologic (e.g. cord compression or  $\uparrow$  ICP)
- ❖ Respiratory (e.g. A/W obstruction)
- ❖ Cardiovascular (e.g. tamponade)
- ❖ gastrointestinal (e.g. obstruction, bleeding)
- ❖ urologic
- ❖ fractures



# Common Cancer Related 911 Calls

- ❖ SOB
- ❖ Severe pain
- ❖ General weakness
- ❖ Fever\*
  - Patients are often told to get themselves to the hospital ASAP at the onset of any fever (during treatment)
- ❖ Sepsis
- ❖ Internal bleeding
- ❖ Stroke-like signs/symptoms



# Assessment & Management

- ❖ Thorough Hx and focused exam
- ❖ Supportive care
- ❖ ABCD
  - e.g. salbutamol for SOB and wheezing in lung Ca
- ❖ IV access
- ❖ Analgesia (e.g. ketorolac)
- ❖ Prepare for a variety of medical emergencies
- ❖ Ask about resuscitation wishes (for terminal Ca)
- ❖ Transport





# Cytotoxic chemicals

- ❖ Chemotherapy drugs are considered “cytotoxic”
- ❖ Refers to chemicals and medications that are toxic to cells
- ❖ Includes medications and biological sources from patients receiving chemotherapy (blood, urine, vomit, feces)
- ❖ Spill kits and containment materials may be found on scene.
  - Use PPE as required

# Cytotoxic chemicals

- ❖ Ask patient or family for information on the type of drug they are on (will likely have been given written information regarding the cytotoxic medication)
- ❖ Includes: usual routes for excretion of drug
  - Approximate time residues may continue to be excreted
  - Home storage of drugs
  - Handling precautions
  - Laundry precautions
  - Waste elimination handling procedures
  - How to deal with a spill

# QUESTIONS

