# Blood Disorders: Good News You Already Know This One!

PART FOUR
Overview: Assessment Components

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1

## Assessment Components

- Health History
  - Ask the right questions
- Physical Findings
- Laboratory & Diagnostic Tests

2

## Assessment: Subjective Data

- Important Health Information
  - Past health history
  - Medications
  - Surgery or other treatments/ procedures

3

## Past Medical History

- Anemia
- Blood clotting issues
- Blood diseases (leukemia)
- Liver/ kidney/ spleen disorders
- Malabsorption issues
- Recurrent infections

- *Family history: Strong genetic link with some hematologic problems
  - Sickle cell, hemophilia, thalassemia

4

## Past Surgical History

- Splenectomy
- GI (gastrectomy/ duodenumectomy, gastric bypass,ileal rescetion)
  - Issues with nutritional absorption
    - Iron/ cobalamin (vit B12),
- Post-op bleeding problems
- Hx of blood transfusions or reactions
  - Transfusion reactions and iron overload increases with the number of blood transfusions

5

## Medications

- Complete history: prescribed and OTC
  - Herbal therapy can interfere with clotting

- Drugs that cause bone marrow depression
  - Antineoplastics
    - Tx Malignancies
  - Antiretrovirals
    - Tx HIV

- Warfarin (long term)
  - May be at risk for bleeding problems

6

## Assessment: Health Management

- Difficulty meeting ADL's due to lack of energy
- Social History
  - Smoking
  - Drinking ETOH
  - Illicit drugs

7

## Assessment: Nutritional – Metabolic

- Obtain weight
- Assess N/V, oral discomfort or anorexia
- Diet history (iron, B12 & folic acid)
  - Inadequate intake of meat, eggs, whole grain, leafy green veggies can contribute to iron and folic acid deficiencies
- Unusual bleeding or bruising
- Cardiovascular disorders (valvular disease or HTN)
- Pulmonary disorders (hypoxemia = chronic stimulation of erythropoietin = polycythemia)

8

## Assessment: Elimination

- Stool color
  - Black or tarry
  - Light or clay colored
  - Change in bowel pattern
- Urine color
  - Dark or "tea colored"
  - Foul odor or cloudy appearance
  - Decrease in UOP

9 Hemolytic Anemia: Increased bilirubin

## Activity- Exercise

- Dyspnea at rest or on exertion
- Limitations in joint motion or swollen joints
  - Arthralgia (joint pain)

10

## Sleep-Rest

- Experiencing excessing fatigue?
  - May not feel well rested after a good nights sleep

11

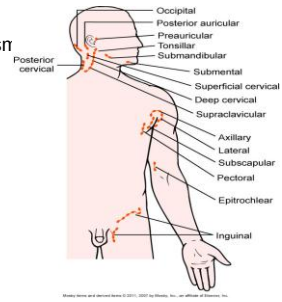
## Cognitive – Perceptual

- Numbness/ tingling?
- Problems:
  - Vision, hearing or taste
- Changes in mental function

12

## Physical Examination

- Objective data
  - Lymph node assessm




13

## Physical Examination

- Cardiopulmonary
  - Tachycardia
  - Palpitations
  - Orthostatic Hypotension
  - Low 02 saturation
  - Shortness of breath

14

## Physical Examination

- Abdominal Assessment
  - Hepatomegaly
  - Splenomegaly
  - Distended abdomen

15

## Laboratory Tests

- CBC with peripheral smear
  - Identifies the morphology (shape and appearance of blood cells)
  - RBC's
    - Hemoglobin (Hgb)
    - Hematocrit (Hct)

16

## Laboratory Tests

- CBC with peripheral smear
  - WBC's (CBC with differential)
    - Measures percentage of each leukocyte
  - Platelet Count
    - Measures the number of platelets (per microliter of blood)

17

## Laboratory Tests

- Blood Typing
  - Blood reactions occur based on ABO incompatibilities
    - Result in hemolysis or RBC's
    - Type 0 blood: universal donor
    - Type AB blood: universal recipient
- Rh Factor
  - Rh + people have the D antigen
    - Example: AB+
      - Coombs test is used to identify Rh status

18

## Laboratory Tests

- Iron Metabolism
  - Serum iron
  - Total iron-binding capacity (TIBC)
  - Serum ferritin
    - Iron stores
  - Transferrin Saturation

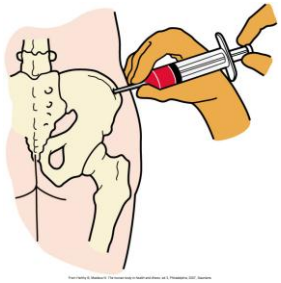
19

## Diagnostic Studies

- Radiologic Studies
  - CT or MRI to evaluate
    - Spleen
    - Liver
    - Lymph nodes
- Biopsies
  - Bone Marrow examination
  - Lymph node biopsy

20

## Bone Marrow Aspiration



21

## Biopsies

- Lymph Node Biopsy
  - Incision made: lymph node and surrounding tissue are removed whenever possible
- Molecular Cytogenetic & Gene Analysis
  - Assess genetic or chromosomal abnormalities of cancer cells
  - Useful in confirming diagnosis & determining tx/ prognosis

22

## Common Interventions/Treatments

- Injury prevention
- Dietary guidelines
- Mineral/ Vitamin supplements

23

## Common Interventions/Treatments

- Blood & Blood product transfusions
- Stem cell transplantation
- Pharmacological agents
  - Steroids
- Surgery

24

# Blood Disorders

The End!

25