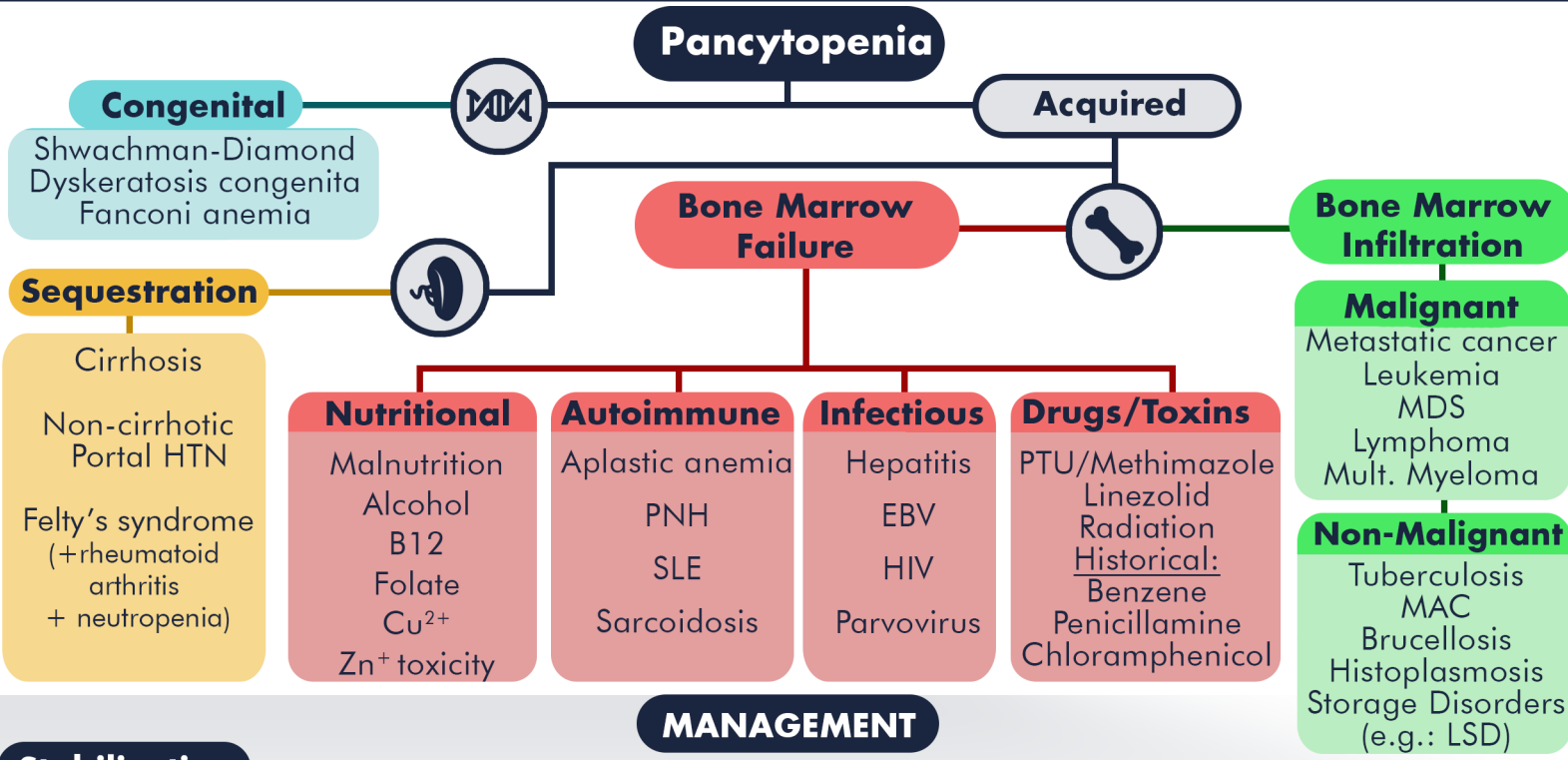


Pancytopenia

Joyce Zhou
Host

Dr. Aric Parnes
Hematologist

Sarah Onorato
Case Presenter



MANAGEMENT

Stabilization



• **Transfusion**
- RBCs / platelets

• **Broad-spectrum antibiotics:**
- for patients with infection and neutropenia

Time Course

- will dramatically change differential considered, review the past lab results

• Acute:

- Sudden changes: consider an acute process that affects the bone marrow:
 - acute leukemia
 - destructive process - infection



• Chronic:

- Nutritional deficiency becomes more likely
- Bone marrow processes:
 - myelodysplastic syndromes (MDS) can be a very slow progression

Clinical Findings

Signs of severity:

- Petechiae on legs
- Bruising
- Ecchymosis
- Blood blisters in the mouth.
 - suggests platelet dysfunction as well as thrombocytopenia
- Anemia
 - pallor
 - ↓ capillary refill
- Splenomegaly
 - may need ultrasound imaging
- Sepsis/septic shock

Lab Tests

- Repeating CBC with:
 - differential
 - MCV
 - reticulocyte count
- Blood smear
 - essential test
- Nutrition levels
 - vitamin B12
 - folate
 - copper
 - iron
- Coagulation
 - PT + PTT
 - fibrinogen
 - DIC panel
- Infection
 - HIV, hepatitis
- LFTs
- TSH, T4/3
 - rarely the cause but is easy and cheap to run

Marrow Biopsy

- When recommended by hematologist/oncologist
- Often the highest yield part of the workup

CLINICAL PEARLS

- Address severity of illness first (stabilize, ABCs, transfuse)
- Consider the time course & trends
- Get a blood smear

