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UVM Health HEMATOLOGY MILD THROMBOCYTOPENIA Referrals/Consult

This guidance is not for people with moderate to severe thrombocytopenia (platelet count <100 / μl), pregnant people, or for people with signs / symptoms of a systemic illness (fever, tachycardia, moderate to severe unexplained malaise etc.)

Background:

- Mild thrombocytopenia is often associated with a transient illness, organ dysfunction (cirrhosis for example), or drug use (alcohol notoriously).
- Platelet clumping is the most common cause of pseudo-thrombocytopenia and is known a laboratory measurement issue (not a platelet problem).
- Hematologic causes include immune thrombocytopenia (which is not treated unless there is symptomatic bleeding or the platelet count drops below 30-50 / μl).
    - Atypical hemolytic uremic syndrome (aHUS) and thrombocytopenic purpura (TTP) usually present acutely with a severe illness and are uncommon in the outpatient setting

Purpose:

To identify patients who would benefit from urgent hematology referral to manage their thrombocytopenia.

To allow for timely work-up of other conditions such as infection which might cause thrombocytopenia.

Laboratory studies (within the prior 3 months):

- Complete Blood Count with differential with and without a citrate tube.
    - A single low platelet count should be repeated and confirmed.
    - Thrombocytopenia should be persistent for at least 1 month before referring (please refer to the urgent findings below)
    - Smear review to confirm if there is platelet clumping
- Comprehensive metabolic profile, HIV, Hepatitis B, Hepatitis C serologies
- Ferritin, B12, Folic Acid. If B12 <300 but > 200, then check methylmalonic acid.
- If concurrent unexplained anemia, add LDH, Haptoglobin, PT and PTT.
- If febrile illness: then check Babesia, Anaplasmosis, and Ehrlichia serologies

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Medication Review:

Review any medications or supplements for thrombocytopenia; stop any which can be stopped. **Some medications or chemicals that can cause thrombocytopenia include**:

- reference Drug Induced Immune Thrombocytopenia - uptodate.com
- Broad categories:
    - Chemotherapy for cancer
    - Radiation therapy for cancer
    - Immunosuppressive Drugs (eg, cyclosporine, MMF)
    - Some antibiotics, including penicillin and ampicillin
    - Sulfonamides
    - Certain anti-seizure medications, including valproic acid
    - Gold salts for arthritis
    - Quinine for malaria
- If patient drinks more than 2 standard drinks of alcohol / day or binge drinks twice a week or more: trial of alcohol cessation for at least 6 months to see if the thrombocytopenia resolves

Imaging Studies

- If enlarged liver or spleen on exam: perform abdominal ultrasound or CT scan (splenomegaly can cause sequestration of platelets)

Managing Nutritional Deficiencies and Organ Dysfunction

- If evidence of B12, folate, or iron deficiency: please ask for anemia pathway and correct. Thrombocytopenia can be caused by nutritional deficiencies.
- Evidence of liver disease: evaluate for cause of liver disease (Internal medicine work-up in addition to appropriate GI/liver specialist consultation; this does not require hematology consultation).

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Please call Hematology consult attending through PAS (802 847-2700) to expedite a referral for any of the following urgent findings:

Concern for bone marrow infiltration from cancer or a hematologic malignancy (abnormal circulating cells)

- There is evidence of hemolysis or microangiopathic hemolytic anemia
    - Signs of hemolysis: low haptoglobin, elevated reticulocyte count, elevated unconjugated bilirubin, high LDH, antibody detected on DAT
    - Signs of microangiopathy: schistocytes on peripheral smear
- Adenopathy or splenomegaly not associated with liver disease
- Thrombocytopenia progresses to severe or symptomatic thrombocytopenia
- A pregnant person in the third trimester