

## UVM Health HEMATOLOGY MILD THROMBOCYTOPENIA REFERRAL/CONSULT

This guidance is not for people with moderate to severe thrombocytopenia (platelet count  $<100 / \mu\text{l}$ ), 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  $30\text{-}50 / \mu\text{l}$ ).
  - 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

### 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 [https://www.uptodate.com/contents/drug-induced-immune-thrombocytopenia?search=thrombocytopenia%20drugs&source=search\\_result&selectedTitle=1%7E150&usage\\_type=default&display\\_rank=1#H2503311283](https://www.uptodate.com/contents/drug-induced-immune-thrombocytopenia?search=thrombocytopenia%20drugs&source=search_result&selectedTitle=1%7E150&usage_type=default&display_rank=1#H2503311283)
- Broad categories:
  - Chemotherapy for cancer
  - Radiation therapy for cancer
  - Immunosuppressive Drugs (eg, cyclosporine, MMF)

- o Some antibiotics, including penicillin and ampicillin
  - o Sulfonamides
  - o Certain anti-seizure medications, including valproic acid
  - o Gold salts for arthritis
  - o 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).

**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
  - o Signs of hemolysis: low haptoglobin, elevated reticulocyte count, elevated unconjugated bilirubin, high LDH, antibody detected on DAT
  - o 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