## Guidance for the Management of Symptomatic Persons who have Received a Viral Vector COVID-19 Vaccine



### **Background**

This document is intended to assist AHS staff in the diagnosis and management of Vaccine-induced Immune Thrombotic Thrombocytopenia (VITT).

Health practitioners are urged to be on alert for possible cases of thromboembolism, disseminated intravascular coagulopathy (DIC) or cerebral venous sinus thrombosis (CVST) occurring within 4 to 28 days after receiving a viral vector COVID-19 vaccine (AstraZeneca/COVISHIELD or Janssen/Johnson & Johnson), in association with a low platelet count.

Treatment for this condition requires specialized medical attention, and an urgent hematology consult should be initiated if a patient has a clinical presentation compatible with the possibility of thrombosis and thrombocytopenia in the 4 to 28 day period after receiving a viral vector COVID-19 vaccine.

#### **Advice for Patients**

Health practitioners should inform their patients/clients to seek immediate medical attention for symptoms of thromboembolism and thrombocytopenia particularly with onset 4 to 28 days after immunization with a viral vector COVID-19 vaccine. These can include: new and/or severe headaches; shortness of breath or chest pain; pain in the abdomen; a painful, cold numb extremity; or easy bruising or bleeding.

Patients are provided an <u>aftercare</u> sheet at their AHS immunization appointment advising them to seek urgent medical care if they do have any of these symptoms.

## When to Suspect VITT

Patients presenting with the following symptoms should be asked about their vaccine history:

- a persistent and severe headache
- focal neurological symptoms or visual changes, including blurred or double vision, or episodes suspicious for seizure
- shortness of breath
- abdominal or chest pain
- swelling, pain and/or redness in a limb
- pallor and coldness in a limb
- unusual bleeding, multiple small bruises, reddish or purplish spots or blood blisters under the skin

If their immunization falls within 4 to 28 days prior to symptoms, in a patient with any of the above they should be evaluated as soon as possible for VITT in addition to other potential etiologies.

## Clinical work-up for possible VITT cases

For those with the above symptoms 4 to 28 days after immunization:

- 1) A complete blood count (CBC) and D-dimer should be drawn immediately.
  - Patients who are assessed in an outpatient setting with low platelets (<150 x 10<sup>9</sup>/L) should be sent urgently to an Emergency Department for further assessment.
  - If the platelet count is >150 x 10<sup>9</sup>/L and the patient has a normal D-dimer, this is unlikely to be VITT. As other potentially serious conditions may present with similar symptoms, clinicians should proceed to workup and manage these conditions as clinically indicated.

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- All discharged patients should be provided with discharge precautions and directions regarding follow-up. They also should be advised to return promptly for a reassessment if symptoms worsen.
- If the platelet count is >150 x 10<sup>9</sup>/L and the patient has an abnormal D-dimer, or there is particular clinical suspicion for VITT, the patient should be advised to return for repeat bloodwork within 24 hours.
- 2) If the patient presents with a persistent and severe headache, nausea/vomiting, visual changes, focal neurological deficits or episodes suspicious for seizures, dedicated cerebral venous imaging is appropriate.
  - A non-contrast CT head may be ordered in patients with normal lab results (i.e. low suspicion of VITT).
  - In clients with additional clinical suspicion (i.e. symptoms and abnormal blood work) contrast enhanced CT cerebral venography OR MR venography should be ordered on an emergent basis.
  - Some clients may not have a visible clot on initial imaging. Repeat imaging may be indicated if clinical suspicion for VITT is high.
- 3) Contact Hematology/Thrombosis Expert via ROCA/<u>RAAPID</u>. Transfer of the patient to a tertiary care site for further assessment and treatment may also be indicated.
- 4) The consultant will order additional tests that are needed to confirm a diagnosis of VITT.
  - Refer to <u>Specimen requirements for investigation of COVID-19 Vaccine-Induced Immune Thrombotic Thrombocytopenia (VITT)</u>

#### Reporting

If VITT is suspected post-immunization, it **MUST** be reported as soon as possible by completing and submitting the Adverse Event Following Immunization (AEFI) report form. If you are unable to complete the electronic form, call 1-855-444-2324 (1-855-444-CDCI). More information about AEFI is available <a href="here">here</a>.

## **Diagnosis**

A low platelet count and the presence of a blood clot on diagnostic imaging, makes the diagnosis of VITT presumptive. The confirmatory diagnosis of VITT is made by testing for Heparin-Induced Thrombocytopenia (HIT).

HIT testing in Alberta is managed by the Special Coagulation Testing Labs in Edmonton and Calgary, and confirmatory testing (Serotonin Release Assay) is completed at McMaster.

#### **Treating Patients with Presumptive or Confirmed VITT**

Patients with presumptive VITT must be treated in consultation with a hematologist. Confirmatory test results are not required in order to initiate treatment. The following may be recommended:

- First line anticoagulants: direct oral factor Xa inhibitors (e.g., rivaroxaban, apixaban, edoxaban) or direct thrombin inhibitor (e.g. argatroban)
- IVIG 1g/kg daily for at least 2 days
- Heparin, low molecular weight heparin and platelet transfusions should be avoided
- Other treatment modalities may be required including steroids and plasmapheresis

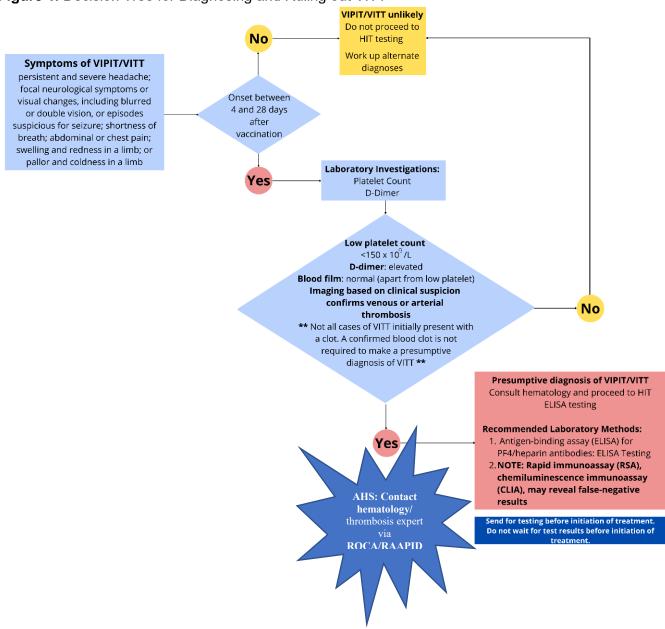
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### Where to go for Further Information

For further information on managing VITT, please see this <u>guidance from Thrombosis Canada</u> and the Ontario Science Table.

Figure 1. Decision Tree for Diagnosing and Ruling out VITT



Source: Thrombosis Canada, Adapted from Ontario's COVID-19 Science Advisory Table