Vaccine-Induced Immune Thrombotic Thrombocytopenia (VITT) Diagnostic Flow Chart (Updated 20 April, 2021)

1. **Signs/symptoms of thromboembolism**
   - **NEW ONSET:**
     - Severe, persistent headache +/- vision change, seizure-like activity
     - Severe persistent abdominal pain
     - Leg pain or swelling
     - Chest pain and/or shortness of breath
   - **COVID vaccination 4-28 days prior to onset**
     - (AstraZeneca or Johnson & Johnson)

2. NO to 1 and/or 2
   - COVID vaccination 4-28 days prior to onset
     - (AstraZeneca or Johnson & Johnson)

---

**SCREEN for VITT**
- Order appropriate imaging based on symptom presentation
- Order urgent complete blood count

**Acute thrombosis present AND platelet count <150 x 10^9/L**

**Possible VITT**
- Order standard coagulation laboratory studies (PT, aPTT, Clauss fibrinogen, D-dimer)
- Order immunoassay for platelet factor 4 (PF4) antibodies (HITT ELISA is most reliable)

**PF4 ELISA positive** (high OD reading)

**VITT CONFIRMED**
- IVIG (0.5-1g/kg daily for 2 days)
- Steroids if platelets <50 x 10^9/L
- Avoid platelet transfusions, heparin, LMWH, VKA

---

**PF4 ELISA negative**

**NO thrombosis on imaging**

**Platelet count >150 x 10^9/L**

---

**If PF4 antibody immunoassay is not available, check D-dimer level. Markedly elevated D-dimer levels (e.g., >4x threshold for VTE exclusion) is highly suggestive of VITT. Treat as per VITT.**

---

**VITT Treatment**
- Give non-heparin anticoagulant: fondaparinux, argatroban, DOAC if platelet count >50 x 10^9/L and no serious bleeding
- Consult thrombosis expert
- Early plasma exchange if platelets < 30 x 10^9/L after IVIG and steroids