**The 4T score**

| 4Ts | 2 Points | 1 Point | 0 Points |
|-----|----------|---------|---------|
| Thrombocytopenia | Platelet count fall > 50% and platelet nadir ≥ 20 x 10^9/L | Platelet count fall 30-50% or platelet nadir 10-19 x 10^9/L | Platelet count fall < 30% or platelet nadir < 10 x 10^9/L |
| Timing of platelet count fall | Clear onset between days 5-14 or platelet fall ≤ 1 day (prior heparin exposure within 30 days) | Consistent with days 5-14 fall, but not clear (e.g., missing platelet counts) or onset after day 14 or fall ≤ 1 day (prior heparin exposure 30-100 days ago) | Platelet count fall ≤ 4 days without recent exposure |
| Thrombosis or other sequelae | New thrombosis (confirmed); skin necrosis at heparin injection sites; anaphylactoid reaction after IV heparin bolus; adrenal hemorrhage | Progressive or recurrent thrombosis; Non-necrotizing (erythematous) skin lesions; Suspected thrombosis (not confirmed) | None |

Other causes of thrombocytopenia
- None apparent
- Possible
- Definite

**Diagnosis and Treatment of Patients with Heparin-Induced Thrombocytopenia**

**When to suspect HIT?**
- Unexplained 30-50% drop in platelets from baseline (even if still >150,000)
- Steady drop in PLT count (no fluctuation) while Hb/Hct relatively stable
- Occurs in the setting of current or recent exposure to heparin
- New thrombosis may or may not be present

**What to do when HIT is suspected?**
- **Page pharmacy and/or heme/onc for assistance**
- **Calculate AND document the 4T**
  - If there is a low probability 4T score (0-3) → **continue heparin** and do NOT send any labs or pursue any further workup
  - Consider pan-extremity screening US to check for asymptomatic DVT especially in patients with low 4T score, when identifying thrombosis would completely change scoring and management
  - If there is an intermediate- (4-5) or high-probability (6-8) 4T score →
    - Discontinue all forms of UFH and LMWH, including flushes
    - Send PF4 ELISA (immunoassay)
    - Initiate non-heparin anticoagulant (Argatroban, fondaparinux or DOAC; Most patients will require TX dose)
    - Page pharmacy for assistance

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What to do if immunoassay (ELISA) is NEGATIVE?
- HIT is ruled out
  - Discontinue non-heparin anticoagulant
  - Resume UFH or LMWH if still indicated

What to do if immunoassay (ELISA) is POSITIVE?
- Continue non-heparin anticoagulant at a TX dose
- Order a Functional, Serotonin Release Assay (SRA) to confirm the diagnosis

What to do if SRA is NEGATIVE?
- HIT is ruled out
  - Discontinue non-heparin anticoagulant
  - Resume UFH or LMWH if still indicated

What to do if SRA is POSITIVE?
- HIT is CONFIRMED
  - Diagnose with Acute HIT
  - Continue non-heparin anticoagulant
  - Document adverse reaction in medical record
  - Educate patient to inform all future providers
  - Follow up with pharmacy or heme/onc about further management
  - In acute isolated HIT, suggest bilateral lower-extremity US to screen for asymptomatic DVT. In patients with upper-extremity CVC, suggest US of the limb with a catheter to screen for asymptomatic DVT.

Based on American Society of Hematology guidelines 2018