The following are high or moderate thromboembolic risk conditions:

- **Venous Thromboembolism (VTE)**
  - Malignancy
  - Recent event w/in last 12wks
  - Severe thrombophilias, such as:
    - Antiphospholipid antibody, lupus anticoagulant
    - Protein C, S, or antithrombin deficiency
    - Leiden factor V homozygous
    - Prothrombin G20210A homozygous
    - Combined heterozygous mutations

- **Atrial Fibrillation**
  - Any hx of TIA, stroke, arterial thromboembolism, or intracardiac thrombus
  - Advanced degree of spontaneous echo contrast may benefit from bridging tx; consider expert consultation
  - Valvular AFib
    - Defined as AFib in presence of rheumatic mitral stenosis, a mechanical or bioprosthesis heart valve, or mitral valve repair
    (Definition adapted from 2014 AHA/ACC/HRS Guideline for the Management of Patients With Atrial Fibrillation: Executive Summary, JACC. 2014)

- **Mechanical valves**
  - Any mechanical mitral or tricuspid valve, or multiple mechanical valves
  - Mechanical aortic valve & any risk for thromboembolism, including:
    - AFib
    - Previous thromboembolism
    - Known intracardiac thrombus
Mechanical heart valves that typically require perioperative bridging include:

- **All** mechanical prostheses in mitral position
- Any pt w/ multiple valves
- **Nonbileaflet mechanical aortic valves** (ie, high-risk valves such as older generation)
- Pts w/ prosthetic aortic valves who have additional risk factors (eg, AFib, previous thromboembolism, known intracardiac thrombus) are more prone to thrombosis
- Any older generation valves (regardless of position) defined as Caged-ball valves (eg, Starr-Edwards, Braunwald Cutter) & tilting disc valves (eg, Bjork-Shiley) are more prone to thrombosis and should **always** be considered for bridging w/ heparin (LMWH or unfractionated)

### Low thromboembolic risk conditions

The following are low thromboembolic risk conditions:

- VTE >3mo ago & no active cancer

- Nonvalvular AFib in absence of high-risk features (hx of TIA, stroke, arterial thromboembolism, or intracardiac thrombus; or advanced degree of spontaneous echo contrast
  - Nonvalvular AFib is defined as AFib in absence of rheumatic mitral stenosis, a mechanical or bioprosthetic heart valve, or mitral valve repair

- Bileaflet mechanical aortic valve in absence of high-risk features such as:
  - AFib
  - Previous thromboembolism
  - Known intracardiac thrombus
- Mechanical heart valves that typically require perioperative bridging include:
  - **All** mechanical prostheses in mitral position
  - Any pt w/ **multiple valves**
  - **Nonbileaflet mechanical aortic valves** (ie, high-risk valves such as older generation)
  - Pts w/ prosthetic **aortic valves who have additional risk factors** (eg, AFib, previous thromboembolism, known intracardiac thrombus) are more prone to thrombosis
  - Any **older generation valves** (regardless of position) defined as Caged-ball valves (eg, Starr-Edwards, Braunwald Cutter) & tilting disc valves (eg, Bjork-Shiley) are more prone to thrombosis and should **always** be considered for bridging w/ heparin (LMWH or unfractionated)