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Title: ACVA Protocol for Bridging Therapy	
Effective Date:	Revised Date:

PURPOSE: To provide guidelines for anticoagulation bridging therapy and identify patients to be bridged.

PROCEDURE:

1. Recent stenting:
    - Aspirin 81 mg should be continued.
    - Patients anticipating "necessary elective" surgical procedures that meet the following criteria may hold their medications based on the following recommendations:
        a. > than 2 weeks post angioplasty
        b. > than 4 weeks post bare metal stent
        c. > 6 months post drug eluding stent (DES)
    - Clopidegrel should be stopped 5 days before procedure
    - Prasugrel should be stopped 7 days before procedure
    - Ticagrelor should be stopped 5 days before procedure
    - Medications should be resumed 48 hours post-surgery, if there are no signs of active bleeding.

2. Mechanical Valve Bridging
    - The following patients require bridging therapy
        a. Mitral valve prosthesis
        b. 2 or more mechanical valves
        c. Non-bileaflet aortic valve
        d. Bi-leaflet aortic valve with high risk features
            Atrial Fibrillation
            Heart Failure
            TIA/CVA
            Prior embolic event or intra-cardiac thrombus
    - Lovenox 1 mg/kg is recommended for both aortic and mitral mechanical valves per the 2014 Valve guidelines
    - Warfarin should be discontinued 5 days prior to the procedure.
    - Warfarin can be started 24 hours after the procedure with heparin drip overlap for 5 days or when INR becomes therapeutic. Lovenox may be used to bridge back to therapeutic INR levels also.
    - Bileaflet aortic valves at ***low risk*** do not require bridging. This is a new class 1 recommendation

3. Atrial fibrillation
    - Use the CHADSVASC risk calculator
    - Use the online creatinine clearance calculator

- Briding therapy is recommended for patient with the following:
  a. CHADS 2 $\geq$ 4 or CHADSVASC of 6
  b. Prior CVA or TIA
  c. Mitral valve stenosis
  d. Prior embolic event
  e. Intra-cardiac thrombus

- Pradaxa (dabigatran), Eliquis (abixabab) or Xarelto (rivoraxaban) discontinuation is based on the patient's creatinine clearance.
- Lovenox bridging therapy should be started the day after the oral anticoagulant is stopped.
  Dosing is based on 1 mg/kg SC every 12 hours.
- Lovenox should be discontinued 24 hours prior surgery.

- Pradaxa (dabigatran), Eliquis (abixabab) or Xarelto (rivoraxaban) discontinuation discontinuation criteria:

  Pradaxa

  CrCl >or = 50ml/min Discontinue 1-2 days prior surgery
  CrCl < 50ml/min Discontinue 3-5 days prior surgery

  Eliquis

  Low risk surgery discontinue 24 hours prior surgery
  Moderate to high risk surgery discontinue 24-48 hours prior surgery

  Xarelto

  Stop 24 hours prior to surgery

- Restart the original oral anticoagulation agent 48 hours after the procedure if there has been no bleeding.
- No heparin drip or Lovenox is necessary with the new agents described above after the procedure.

Approved:_____
Department Manager

Date:_____

Approved:_____
Administrator/Physician

Date:_____