Table III. Perioperative management of anticoagulation with warfarin

## Low risk:

- Atrial fibrillation with CHADS2 score 0-2 (with no prior stroke or transient ischemic attack).
- Bileaflet aortic valve replacement without additional stroke risk factors.
- Venous thromboembolism (VTE) >12 months previous and no other risk factors.

Bridging is not recommended.

- 1. Stop warfarin 5 days before surgery.
- 2. Check INR on day of surgery.
- 3. Restart warfarin postoperatively approximately 12-24 hours after surgery (evening of, or next morning) and when hemostasis is adequate, and monitor INR daily.

## Intermediate risk:

- Atrial fibrillation with CHADS2 score 3-4.
- Bileaflet aortic valve replacement with >1 of the following risk factors: atrial fibrillation, prior stroke or TIA, HTN, DM, congestive heart failure, age >75.
- VTE within past 3-12 months.
- Non-severe thrombophilia (i.e., heterozygous Factor V Leiden or prothrombin gene mutation).
- Recurrent VTE.
- Active cancer (treated within 6 months or palliative).

Bridging should be considered based on an assessment of individual patient and surgeryrelated risk factors and in discussion with the surgical team.

In patients with atrial fibrillation and low to intermediate risk of stroke, the BRIDGE Trial demonstrated that periprocedural bridging with LMWH did not reduce the incidence of arterial thromboembolism compared to no bridging. It did increase the risk of major bleeding.

## High risk:

- Rheumatic atrial fibrillation.
- Atrial fibrillation with CHADS2 score of 5-6.
- Any mitral valve prosthesis.
- Older aortic valve design (tilting disk or caged ball).

## Bridging is recommended.

- 1. Stop warfarin 5 days before surgery.
- 2. Start therapeutic dose heparin infusion or LMWH 36 hours after last dose of warfarin.

- Atrial fibrillation or mechanical valve with recent stroke or TIA (within 3 months for atrial fibrillation, 6 months for mechanical valve).
- Recent VTE (within 3 months).
- Severe thrombophilia (e.g., deficiency of protein C, protein S, or antithrombin; antiphospholipid antibodies; multiple abnormalities).
- 3. Discontinue LMWH 24 hours and heparin infusion 4- 6 hours before surgery.
- 4. Restart heparin infusion or LMWH when hemostasis is adequate.
- 5. Restart warfarin postoperatively approximately 12-24 hours after surgery (evening of, or next morning) and when hemostasis is adequate, and monitor INR daily.
  6. Discontinue heparin infusion or
- LMWH when INR in therapeutic range for 24 hours.