

## **GPIIb/IIIa Bridge when Holding an Oral Antiplatelet Agent**

After placement of a coronary drug-eluting stent (DES), patients are required to be on a P2Y12 inhibitor such as clopidogrel, prasugrel, and ticagrelor for at least a year. However, there are times when these patients require surgery within 1 month of receiving the stent where clopidogrel, prasugrel, or ticagrelor have to be stopped. These are our guidelines for high-risk patients who require bridge-therapy prior to urgent surgical procedures.

Tirofiban is a competitive reversal antagonist where platelet function is restored in 2-4 hours post discontinuation of therapy.

Management Guidelines for its use in this setting are as listed below.

### **Tirofiban:**

- Discontinue clopidogrel 5-7 days prior to surgery. At the discretion of the physician, aspirin therapy can be continued before, during and after the procedure\*
- Start Tirofiban 24-48 hours after the last clopidogrel dose
- **Dosing:**
  - No bolus needed
  - CrCl  $\geq$  30 ml/min: 0.1 mcg/kg/min, stop infusion 4 hours prior to surgery.
  - CrCl < 30 ml/min: 0.05 mcg/kg/min, stop infusion 8 hours prior to surgery
  - Restart infusion 2 hours after the end of surgery if deemed safe and continue for up to 6 hours after resumption of clopidogrel 75mg daily (option of 300mg re-load on day 1) (or prasugrel/ticagrelor) and aspirin

\*Aspirin may typically be held in situations such as neurosurgical and spinal procedures

Data exists for eptifibatid, however, the cost for 24 hours of therapy would be three-fold higher

Reference: Savonitto S, et al. Br J Anaesthesia 2010;104:285-91

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