### Perioperative Management of Heparins (IV Unfractionated Heparin and LMWH)

**IV Unfractionated Heparin**
- **Pre-op**
  - Anticoagulation increases bleeding risk
  - Treatment must be stopped prior to surgery
  - Heparins have predictable pharmacokinetics and can be stopped close to the time of surgery

**IV Heparin**
- Stop infusion 4-6 hours prior to surgery

**Low Molecular Weight Heparin (LMWH)**

#### Prophylactic dose LMWH
- E.g. Clexane 40mg s/c OD
- **Stop at least 12 hours prior to surgery**
  - This allows for surgery to be carried out safely during daylight hours the following day should it be required

#### Treatment dose LMWH
- E.g. Clexane 1.5 mg/kg s/c OD
- **Stop at least 24 hours prior to surgery**
  - This allows for surgery to be carried out safely during daylight hours the following day should it be required

**IV Heparin**
- Surgeon to consider re-starting IV heparin 6-12 hours post-operatively if haemostasis adequate and no contraindication (e.g. epidural in-situ)

**Prophylactic dose LMWH**
- E.g. Clexane 40mg s/c OD

**Post-op**
- Anticoagulation increases bleeding risk
- Surgeon must assess haemostasis prior to re-starting treatment

**Prophylactic dose LMWH**
- E.g. Clexane 40mg s/c OD
- **Stop at least 12 hours prior to surgery**

**Treatment dose LMWH**
- E.g. Clexane 1.5 mg/kg s/c OD
- **Stop at least 24 hours prior to surgery**

**IV Heparin**
- Surgeon to consider re-starting IV heparin 6-12 hours post-operatively if haemostasis adequate and no contraindication (e.g. epidural in-situ)

**Treatment dose LMWH**
- E.g. Clexane 1.5 mg/kg s/c OD
- If adequate haemostasis achieved, give prophylactic LMWH at 6 – 8 hrs post-surgery

**Following high risk procedures and in patients with an increased bleeding risk or in any situation where increased risk of bleeding is unacceptable, treatment should not be re-started until at least 48 hours post-procedure**