

Major Haemorrhage in Spinal Surgery

Immediate Action

- Communicate with surgeon and scrub team regarding blood loss
- Confirm blood availability and consider activating 'Major Haemorrhage' pathway by calling 23398
- Ensure large bore IV Access – 2nd anaesthetist to assist if required
- Set up rapid infuser or second fluid warmer

Useful Drugs

Tranexamic Acid

Dose 1g Bolus

Infusion 2mg/kg/hr – 8 Hours

Calcium Chloride 10%

Dose 5-10ml

Blood

Give FFP:RBC in at least a 1:2 Ratio. Consider Cryoprecipitate (2 pools)

Ongoing Management 0-15 mins

Calculating blood loss

- Confirm blood loss – suction canisters, cell salvage, weigh swabs, check under drapes

Assessment

- ABG/ VBG – Assess pH, Hb, Haematocrit and lactate
- Consider Cardiac output monitoring (i.e. PPV or LidCo)

Blood Pressure

- Whilst maintaining a MAP to protect vital organs adopt a period of 'hypotensive resuscitation' until bleeding is under control – use peripheral vasopressors

Ongoing Management 15-30+ mins

Ongoing Assessment of Blood loss

- Recheck blood loss - suction canisters, cell salvage, weigh swabs, check under drapes

Ongoing Assessment

- TEG analysis – Bring to cardiac theatres for analysis
- Bloods - FBC (Purple), U&E (Yellow), Coagulation(Blue)
- Consider other haematology tests e.g. Clauss Fibrinogen (Pink Bottle)

Transfusion Targets

- Hb > 70
- APPT and/or PT Ratio < 1.5
- Fibrinogen > 1.5g/L
- Platelets > $50 \times 10^9/L$
- Ensure unused blood returned to fridge within 30 mins

Post-operative Plan

- Consider HOBs / HDU / ICU as appropriate