Management of Acute Type B Aortic Dissections Guideline

Early medical management:
Aggressive BP control, analgesia and anti-emetics

<table>
<thead>
<tr>
<th>Haemodynamic targets (initial)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Systolic BP 100-120 mmHg</td>
</tr>
<tr>
<td>• MAP &lt;80 mmHg</td>
</tr>
<tr>
<td>• Targets should be changed ONLY after consultation with Vascular team</td>
</tr>
</tbody>
</table>

If patient develops leg weakness, the Vascular surgeon and Vascular anaesthetist must be contacted immediately. Potential interventions for spinal cord ischaemia
- Increasing target BP to avoid potential spinal cord infarction
- Emergency CSF drain
- Repeat CT or MRI imaging

Analgesia
- **Morphine** (1-10mg) IV titrated to effect
  Then
  - **Morphine PCA** 1mg bolus 5 min lockout

  *If the patient has renal impairment, morphine can be replaced with fentanyl 10 microgram bolus 5 min lockout*
  - Regular **Paracetamol** (unless contra-indications)

Anti-emetics
- **Ondansetron** 4mg IV every 8 hours
- Supplemental cyclizine 50mg IV every 8 hours and metoclopramide 10mg IV every 8 hours may be used

BP control
*Intravenous therapy*
1. **Labetalol** (first choice)
   a. Administer IV bolus injections for initial control of blood pressure (10mg slow IV bolus injections at 2 minute intervals to a maximum of 200mg per course of boluses).
   b. AND ALSO start an IV infusion to maintain blood pressure control.
      i. Concentration 5mg/ml for CVC use OR 1mg/ml for PVC use
      ii. Dose – Start at 15mg/hr and titrate to clinical effect, but often 10-60mg/hour.
2. **Nicardipine** (second line in addition to labetalol, or first line if contra-indications to beta-blocker)
   a. IV infusion *(change IV infusion site every 12h if peripherally administered)*
      i. Concentration 25mg made up to 250ml (5% glucose) = 100micrograms/ml
      ii. Dose – titrated to clinical effect
      iii. Start at 50ml/hour (5mg/hour). The rate may be increased every 10 mins by 25ml/hour to a maximum of 150ml/hour (15mg/hour).
      iv. Once target BP is achieved reduce dose gradually, usual maintenance dose 2-4mg/hour
v. 3. **Hydralazine** (third line)
   a. IV bolus – 5mg slow IV injection bolus at 20 minute intervals to a usual maximum of 20mg
   b. IV infusion
      i. Concentration 60mg made up to 60ml (0.9% sodium chloride) = 1mg/ml
      ii. Dose – titrated to clinical effect
      iii. Start at 3ml/hr (50micrograms/min). The rate may be increased every 10 mins by 3ml/hour to a maximum of 18ml/hour (300micrograms/min).

**Oral therapy – Start as soon as possible (Day 1 unless contra-indicated)**

*Titrate first line drug to maximum tolerated dose before introducing next line drugs*

1. **Bisoprolol** (first choice)
   a. 2.5-20mg once daily
2. **Amlodipine** (second line in addition to bisoprolol, or first line if contra-indications to beta-blocker)
   a. 5-10mg once daily
3. **Doxazosin** (third line in addition to bisoprolol and amlodipine)
   a. 1-16mg once daily
4. **Hydralazine** (fourth line in addition to bisoprolol, amlodipine and doxazosin)
   a. 10-25mg four times daily

NB ACE Inhibitors and diuretics should be avoided initially while the kidneys are at risk.

**References**