Think **DISSECTION**

The Management of Acute Type B Aortic Dissections

Maaz Syed, ST Vascular Surgery
Orwa Falah, Consultant Vascular Surgery
Mark Dunn, Consultant Critical Care
Euan McGregor, Consultant Anaesthetics
Alistair Nimmo, Consultant Anaesthetics

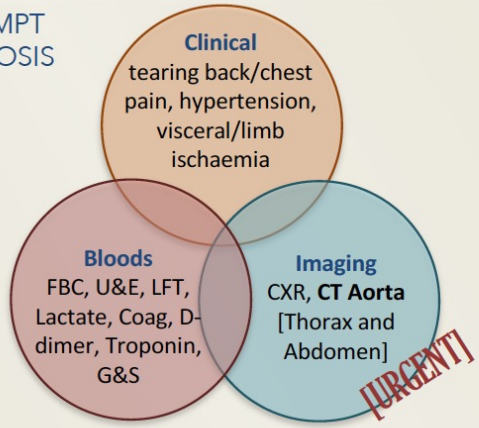
NHS Lothian

1 RESUSCITATION

A B C D E

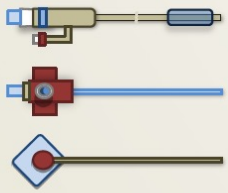
Early anticipation of critical care involvement

2 PROMPT DIAGNOSIS



Hypotension may be due to myocardial ischaemia, tamponade, aortic root incompetence, or an aortic bleed. These warrant urgent investigations.

3 SYSTEMIC MONITORING



Urinary Catheter

Invasive BP

ECG Rhythm

Urgent Critical Care opinion regarding Level 2 bed (HDU)

4 ANALGESIA AND ANTI-EMETICS

Morphine 1 – 10mg IV titrated to effect;
Morphine PCA 1mg bolus; 5min lock out;
Fentanyl 10µg IV bolus 5min lock out [renal failure]
Paracetamol 1g QDS (unless contraindicated)

Ondansetron 4mg IV every 8 hours OR
Cyclizine 50mg IV PRN 8 hourly OR
Metoclopramide 10mg IV PRN 8 hourly

5 BLOOD PRESSURE CONTROL

Systolic BP target:	**100 -120mmHg**
MAP target:	**<80mmHg**
Heart rate target:	**50 – 60 bpm**
Urine output target:	**0.5 ml/kg/hr**

1 **Labetalol** 10mg IV bolus every 2 min [max 200mg]
THEN IV infusion 15mg/hr titrated to clinical effect.
Concentration: 1mg/ml [PVC] or 5mg/ml [CVC].

2 **Nicardipine** 25mg in 250ml [100µg/ml]
Add to Labetalol, or 1st line if intolerant to β-blockers
Start at 50ml/hour (5mg/hour).
Increase every 10 min by 25ml/hour;
Max 150ml/hour (15mg/hour).
Once target BP is achieved reduce dose gradually, usual maintenance dose 2-4mg/hour

3 **Hydralazine** 5mg slow IV bolus every 20min [max 20mg] (in addition to previous agent)
THEN IV infusion 1mg/ml titrated to clinical effect;
Start at 3ml/hr (50µg/min).
Increased every 10 mins by 3ml/hour.
Max 18ml/hour (300 µg/min).

TYPE A → **Urgent Cardiothoracic Opinion** [bleep: 1682]

TYPE B → **Urgent Vascular Surgery** [via switchboard] **and Critical Care** [bleep: 2306] **Opinion**

6 LONG-TERM MANAGEMENT

CONVERT TO ORAL BLOOD PRESSURE CONTROL AS EARLY AS TOLERATED

Target **BP** 120/80 mmHg
Repeat CT before discharge (usually at 48 hours)
Follow-up CT at 1, 6 and 12 months.
Outpatient follow-up at 8 weeks post discharge, unless indicated sooner.

1	**Bisoprolol**	2.5 – 20mg once daily
2	± **Amlodipine**	5 – 10mg once daily
3	± **Doxazosin**	1 – 16mg once daily

HIGH RISK FEATURES OF TYPE B DISSECTIONS !

- **Visceral** / **limb** ischaemia
- Entry tear **≥10mm**
- **Inner curve** entry tear
- Aortic diameter **≥4cm**
- On-going **Pain** or **HTN**
- **Retrograde** dissection
- False lumen (FL) **≥22mm**
- Partial FL **thrombosis**
- **Fusiform** index ≥0.64
- Grow **≥1cm/yr** or **≥5.5cm**