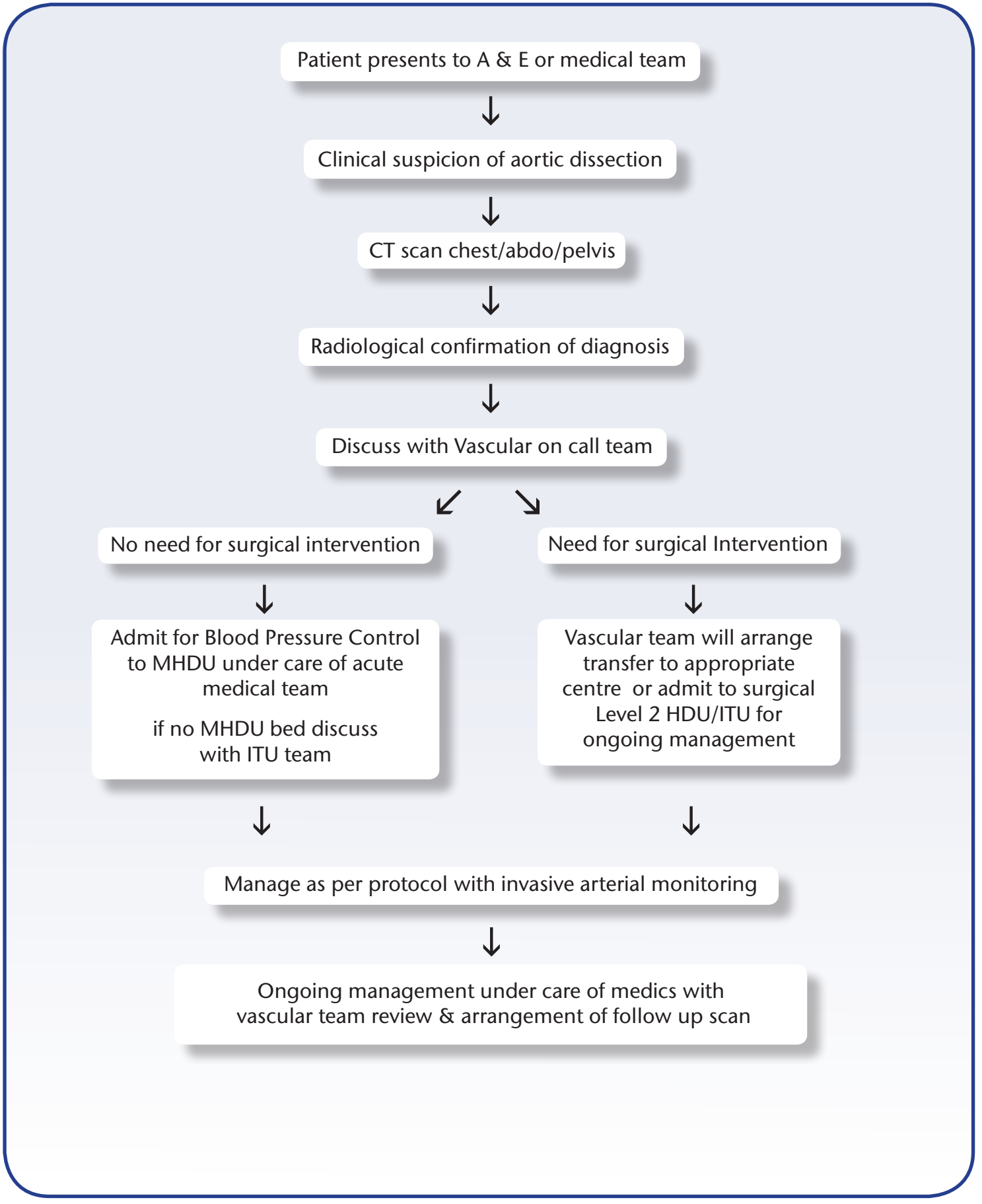
Management of Patients with Acute Type B Aortic Dissection

Exclude need for surgical intervention then early medical management with aggressive BP control in MHDU
Invasive Arterial Blood Pressure (IABP) measurement/urinary catheter/continuous ECG monitoring



BP Control

Systolic IABP target	100-120 mmHg
Mean Arterial Pressure target	< 80mmHg
Heart rate target	50 – 60 bpm

If patient develops leg weakness, contact vascular surgeon immediately – possible spinal cord ischaemia – interventions include:
Increasing IABP to avoid infarction of spinal cord
Repeat CT or MRI
Emergency Cerebrospinal Fluid drain

Intravenous therapy

1: Labetalol (1st choice)
IV bolus for initial control- 10mg bolus slowly every 2mins to achieve target (max 200mg)
And also start
IV infusion - 1mg/ml (peripheral) or 5mg/ml (central line) – start at 15mg/hour and titrate to effect – often 10 – 60mg/hour

2: Nicardipine
(2nd line in addition to labetolol or 1st line if contraindications)
IV infusion -25mg made up to 250mls (5% Dextrose) – 100mcg/ml
Titrate to clinical effect – start at 30 -50ml/hour (3-5mg/hour)
Can increase every 15 minutes by 25ml/hour to max 150ml/hour
Once target achieved reduce dose gradually – usual maintenance is 20 – 40ml/hour (2 – 4mg/hour)

3: Hydralazine (3rd line in addition to Nicardipine and / or Labetolol)
IV bolus -5mg slowly every 20 minutes (max 20mg)
IV infusion - 60mg/60ml (0.9% Sodium Chloride) i.e 1mg/ml– start at 3ml/hour – increase every 10 minutes by 3ml/hour – max 18ml/hour(300mcg/minute) Max 18ml/hour

Oral Therapy – start as soon as possible

Bisoprolol 2.5 – 20mg once a day
Amlodipine (in addition to Bisoprolol) 5 – 10mg once a day
Doxazosin (in addition to above) 1 – 16mg once a day
Hydralazine (in addition to above) 10 – 25mg four times a day

Avoid ACE Inhibitors & diuretics initially while risk of acute kidney Injury

Analgesia

Morphine 1 – 10mg IV titrated to effect then PCA 1mg/5minute lockout – can use fentanyl if renal impairment
Paracetamol 1g IV up to four times a day (decrease dose if less than 50kg)

Antiemetic

Ondansetron 4mg IV 8 hourly as required
Cyclizine 50mg IV 8 hourly / Metoclopramide 10mg IV 8 hourly as required

Adapted from Critical Care Guidelines NHS Lothian and summary of product characteristics.
Permission granted to use given by Dr Mark Dunn Critical Care consultant (lead author)

References

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