IABP Safety Checklist

To be used on admission/as part of shift checks following patient transfer.

Equipment Checks

Mains Power On

16hrs to fully charge battery (80% charged within first 2 hrs)
Should be plugged into UPS

Helium Tank Open

Turn the helium tap anti-clockwise to open

Helium Tank Level

Check helium pressure gauge is above red line, if not contact perfusionist

- Within office hours – Ext. *23252*
- Out of office hours – Ext. *21111* (via CTITU) or via *Switchboard*

IABP Tubing Connections

Ensure connections are secure between patient and the pump (both helium & a-line)
If helium line becomes disconnected refer to – ***IABP Troubleshooting Guide/Help Screen***

IABP Tubing Patency

If blood/dried blood particles/more likely grey specs are seen in the pneumatic tubing this may indicate balloon rupture
First – stop pump > clamp helium line (stopping the pump automatically deflates the balloon) > disconnect balloon/tubing from pump > Notify medical staff immediately and refer to:

- ***IABP Troubleshooting Guide/Help Screen***

In "Auto" Mode (CS100/CS300 models)

Trigger source automatically derived from ECG but will automatically adjust to "Pressure" trigger if ECG lost.
Should only be in "Semi-Auto" mode if advised by Consultant/Cardiologist
Never set to "Manual"

IABP Frequency

As prescribed by Consultant/cardiologist – 1:1, 1:2, 1:3

Augmentation

Usually fully augmented unless reduced by Consultant/Cardiologist for weaning
Never set less than ¾ Augmentation – Risk of clot formation
Alarm limits – as prescribed

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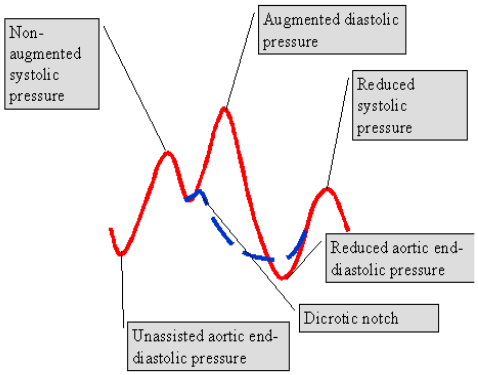
Observe Arterial Trace



Red line represent actual aortic pressure tracing with an initial ***Unassisted Systolic Pressure*** (or non-augmented systolic pressure) followed by a pump generated ***Augmented Diastolic Pressure*** and then an ***Assisted Systolic Pressure*** (or reduced systolic pressure)
A sharp "V" should be visible between unassisted systole and augmented diastole.

- If not refer to ***IABP Troubleshoot Guide***

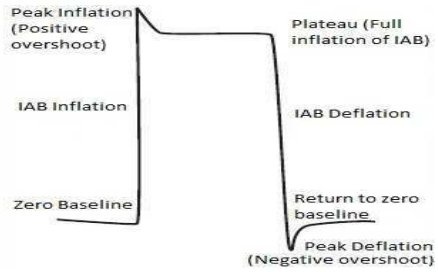
Accurate Arterial Readings

Check pressure bag height – 3ft above transducer, add separate drip stand to bed to achieve this
Maintain pressure – 300mmHg with NaCl 0.9%

- Initial flush bag may contain heparin if IABP inserted elsewhere – e.g. Angiography

Zero at start of shift – to phlebostatic axis
Ensure arterial line tubing length less than 8ft – do not add extratubing as this may affect readings
If dampened trace and blockage of lumen suspected refer to ***IABP Troubleshooting Guide***
Do not sample from IABP arterial line

Normal Balloon Pressure Waveform



If waveform looks different to this please refer to ***IABP Troubleshooting Guide***

Documentation

24hr Chart – Hourly Checks

Graph section of TPR Chart – IABP Systolic, Diastolic, Mean
Haemodynamic (boxed) section of TPR chart

- ABP/MAP, Diastolic Augmentation
- Frequency – 1:1, 1:2, 1:3
- Bilateral Pedal Pulses & Left radial pulse – colour, temperature, sensation
- Catheter site/helium tubing check

Nursing Notes

As above – plus goals for diastolic augmentation and MAP.
Other haemodynamic supports required (e.g. Inotropes)
Site checks & dressing changes
Rationale for medically altered trigger source (if not ECG)
Weaning plan, record of ECHO, most recent Chest x-ray
- Especially on admission/after CPR/if obs change following any change in patient position

Platelet Count

Observe for thrombocytopaenia/signs of bleeding – especially if on IV heparin

Patient Checks

Insertion Site

Check whether sheath/sheathless insertion
- If sheath in situ patient may be restricted to angle at which they can sit up

Check anteriorly and posteriorly for signs of blood, haematoma
If present refer to ***IABP Troubleshooting Guide***
Ensure dressing is clean and intact – refer to ***SPSP Guidance***
Check for signs of infection, inform medical staff if suspected
Maintain alignment of affected limb

Medical staff must be made aware of any of the following complications as radiological confirmation of catheter placement may be required:

Lower Limb Perfusion
- Reduction in bloodflow – using Doppler USS available on IABP
- Distal pedal pulses on both limbs, colour, temperature and capillary filling (if awake include sensation/movement)

Left Arm Perfusion – Reduction in blood flow by manually checking left radial pulse – colour, temperature and if awake sensation/movement
Urine Output – Decreased UO/anuria
Shoulder pain – Possibility of aortic wall dissection – sudden excruciating pain
GCS - Decreased

Additional Points to Note:

Catheter Immobility – IAB Catheter ***must not be Immobile*** for **≥ *30 minutes***. If catheter is immobile for more than 30 minutes the pump ***must not*** be restarted, the IAB catheter must be removed and patient reviewed as to whether a new catheter is required to be inserted.

Cardiac Arrest – During cardiac arrest follow ALS protocol – delivery of DC shock will not adversely affect pump. Use arterial pressure as the trigger during chest compressions (1:1). Revert to ECG R wave signal as clinically indicated.