

PiCCO: indications, contraindications and limitations

Indications for use of PiCCO:

- Guidance of fluid management in patients with complex hemodynamic failure, eg. combination septic and cardiogenic shock
- Unavailability of, or contraindications to, the use of PA catheters

Contraindications for use of PiCCO:

- **Atrial or ventricular arrhythmia:** you need a stable pulse to measure the contour of
- **Intra-Aortic Balloon pump:** once again, the pulse contour is all wrong; but you can still get thermodilution cardiac output measurements.
- **Aortic aneurysm:** the contour will be bizarre because the arterial compliance is going to be weird, with the aortic aneurysm acting as a damping system by absorbing all the pressure wave.
- **Extracorporeal circuit:** when you are on bypass, there is no real arterial waveform
- **Pneumonectomy:** PiCCO relies on there being a relatively normal pulmonary vasculature
- **Massive pulmonary embolism:** as above; it is essentially a pneumonectomy by embolism.
- **Intracardiac shunt:** the PA catheter will also give an inaccurate thermodilution reading