ODM+ Case Study – Postoperative Warming: 3-Week Old Baby

Weight 3.6 kg (8 lb), height 58 cm (23 in), body surface area (BSA) 0.22 m². Postoperative bowel resection.

1. The baby had fluid management in the operating theatre guided by the ODM+ and was now in intensive care for postoperative monitoring. **Flow Time corrected (FTc)** is reduced and there is a small respiratory swing on the waveform. **Heart Rate (HR)** may be acceptable.

2. **FTc**, **Stroke Volume (SV)**, **Peak Velocity (PV)**, **Cardiac Output/Index (CO/I)** are increasing. The baby feels warmer to touch. This may indicate a reduction in afterload due to warming after surgery. However, since the respiratory swing continued, there may now be a slight relative hypovolaemia, so some fluid was given.

3. Following the fluid, **FTc**, **SV**, **PV**, **CO/I** are increasing. **HR** may be increasing for several reasons; e.g., further relative hypovolaemia as the baby continues to warm or pain/distress.

![Monitoring Mode](image)

**Summary**

The ODM+ can be used safely to assess cardiac function and its responses to interventions. The ODM+ is precise enough to see small changes in central vascular flow. Flow is very responsive to even small changes in circulating blood volume as well as changes in arterial compliance.