END TIDAL CO2 MONITORING

Provides a constant surveillance of end tidal CO2 in ventilated infants demonstrating a trend of CO2 levels and correct positioning of ETT. The accuracy of the reading will be dependant on the weight of patient and respiratory rate, accuracy decreasing in VLBW infants and increased respiratory rate.

The reading will provide a wave form and indicate a trend in values rather than an accurate value. The use of TCM's will initially still be required to establish the accuracy level.

INCLUSION CRITERIA
Infants over 2 kg who are:
1. Post op cardiac patients
2. Ventilated and transferring between departments where possible
3. Heavily sedated/ muscle relaxed.

KEY POINTS
- The end tidal devise has a dead space of 0.5ml.
- End tidal CO2 units are single use and last for 72 hours. This time will be reduced with increased ETT secretions and humidity. Keep the sample line facing up and line under the heat source as much as possible to reduce rainout in the device. It is advisable to remove the humidification from the End Tidal device, approximately every 4 hours. Remove the device from the ETT (reconnect ventilator to the patient), air dry the unit and reinsert. This can aid in improving the accuracy of readings.
- TCMs should be re-membraned prior to use with each new patient and run in conjunction with End Tidal CO2.
- The device should not be used for 4 hours post surfactant delivery.
- End tidal CO2 is not accurate with oscillation ventilation or if moderate to large leak around ETT.

APPLICATION:
The end tidal device is positioned between the patients ETT and the ventilator flow sensor. The device is then connected to the X2 on the monitor. Reading starts immediately, no calibration is required. A wave form is displayed on the monitor with an end tidal CO2 value. If monitoring is required for patient transfer the X2 unit and microstream extension is removed with from the Monitor and placed in a MP50. This allows reading of > 3 wave forms and provides a power source to run the microstream extension unit.
References