Oxyswan Insertion and Calibration



Selecting a Measurement Label

Always select a measurement label before inserting a catheter/probe. Use the SvO2 label when the catheter/probe will be located in the pulmonary artery (measuring mixed venous oxygen saturation). This is the only label which allows the measurement value to be used to calculate oxygen extraction.

To select a measurement label:

- 1. Select Main Setup then Measurements followed by <SO₂ Label>
- 2. Select Label
- 3. Select the appropriate label for the catheter/probe location. SvO2

Connecting the Optical Module

- 1. Connect the optical module to the SO2 module. Allow the optical module to warm up before you insert the probe/catheter and perform a calibration. Although the warm-up message disappears from the screen after on minute, it is preferable to let the optical module warm up for 10 minutes for best accuracy.
- 2. Position the optical module to avoid contact with liquids. Fluid entering the catheter-optical



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module connection will impair measurement performance.

- 3. Place the optical module on the catheter tray in the space provided and open the lid.
- 4. MD to place. Document insertion length in cm.

After Insertion

The SO2 probe/catheter is thin and flexible, treat it carefully. Avoid kinking, bending or grasping the probe/catheter with forceps or a hemostat. Damage to the fiber results in low intensity light and a sudden decrease in intensity readings. Refer to the documentation provided with the fiber-optic probe/catheter, paying special attention to any precautions, warnings or contraindications. Secure the optical module directly attached or in close proximity to the patient, to avoid placing excessive tension on the catheter, which would result in movement of the catheter tip from the optimal position in the patient.

You **must** perform an in-vivo calibration once the probe/catheter is in place. The probe/catheter should be replaced after it has been in place for 72 hours.

Performing In-Vivo Calibration

Perform an in-vivo calibration:

- \Rightarrow when you place the catheter in a patient.
- \Rightarrow if the catheter was disconnected from the optical module.
- \Rightarrow when the catheter has been in the patient for 24 hours.
- ⇒ if any significant change in light intensity occurs that the monitor cannot correct automatically

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Setting up the In-Vivo Calibration

Check for:

- \Rightarrow Proper positioning of the probe/catheter in the patient.
- \Rightarrow Relatively stable oxygen saturation in patient.
- \Rightarrow Light intensity indicator is indicating a stable medium to high level.

Depending on the probe/catheter in use you may need to enter a catheter correction factor. This will be indicated in the table in the Accessories chapter or in the catheter documentation.

- 1. In the Setup <SO₂ Label> menu, select Catheter Factor.
- 2. Enter the correction factor.

Making the In-Vivo Calibration

- 1. Be prepared to draw a blood sample from the patient.
- 2. In the Setup <SO₂ Label> menu, select Start In-VivoCal.
- 3. To clear the distal lumen, draw off and discard at least 2 ml of blood before taking the sample.
- 4. Draw a blood sample from the distal port of the catheter (from the PA port) and flush the line slowly and gently.
- 5. The correct Merlin order is <u>venous blood gas with co-ox</u>.
- 6. Select CalibrationValue and select from the list the value received from the lab. This is the <u>O2HB</u>
- 7. Select <u>Hb [g/dl]</u> and enter the corresponding value from the blood gas.
- Complete the calibration by selecting Store In-VivoCal (even if the stored calibration value did not change) and select Confirm.
 This updates the data stored in the optical module.

Selecting Recall Last Cal recalls the previously stored calibration value.

If the calibration fails, check that the light intensity indicator is indicating a stable medium to high level. Repeat the calibration.

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