Automatic Shunt Calculations - (QP/QS Ratio) Calculation

If a Shunt calculation is performed, all shunt results including PBF/ SBF Ratio are saved and printed in the Sensis Report. Both Hemodynamic Report (2) and Hemodynamic Report (3) include the (PBF/SBF Ratio) = (QP/QS Ratio).

Shunt Calculations are automatically performed, Sensis requires that you take O2 Sats from the following sites.
MV Before the right heart – mixed venous
PA After the right heart – pulmonary artery
PV Before the left heart – pulmonary vein Note: Sensis assumes PV = 96% if not measured.
SART After the left heart – Systemic artery

Assume the following O2 Saturation results are entered indicating a LEFT to RIGHT shunt. (Figure 1)
RA = 60% PA = 78% RPA = 81% AO = 96%

Click "Close" It is not necessary to click the "Adjust Shunt" button, Sensis will automatically detect a shunt if present.

Note: The "Adjust Shunt" button is used to return to the Shunt Fick window where different O2 Sat results can be exchanged.

(Figure 1)
The following Shunt results are displayed. Note: The RPA Sat is used in the shunt calculation.

\[ \frac{Q_P}{Q_S} = \frac{P_{BF}}{S_{BF}} \]

**F Ratio** = 2.35

1. Click the “Calculate Flows” button.

2. Click the “OK” button located in the bottom of Shunt Properties window in order for the results to appear on report. (Figure 2)

Calculated Shunt results can be reviewed during examination using the Hemodynamic Worksheet Icon. Located on the right side of the DMC display. (Figure 3)

(Figure 3)

The shunt can be adjusted by selecting a different O2 Sat result. Example: Replacing the RPA Sat result with the PA Sat result. (Figure 4)

Re-calculated (QP/QS Ratio) = (PBF/SBF Ratio) = 1.97 using PA Sat.

Use the “Calculate Flows” button, and the “OK” button to re-calculate the shunt with the PA O2 sat. 

(Figure 4)

Note #1: If a shunt is not determined then no (PBF/SBF Ratio) appears in the Sensis report.

Note #2: The Hemo WS Report does NOT contain the PBF/SBF Ratio Index.