Shunt Calculation and Fick Cardiac Output Calculation

A valve area calculation requires that both the Cardiac Output and the Valve Gradient be measured in the same condition.

During a condition only a Shunt calculation or Fick cardiac output calculation is allowed. If you try to perform both Fick cardiac output and a shunt calculation was previously performed in the same condition, the following warning message appears. Figure #1

**Figure #1**

![Warning Message](image)

Suggested Workaround: If you received the warning message in Figure #1.

1. Click the “Yes” button.
2. Perform the Fick Calculation in the condition where the valve gradient was measured.
3. Use the New Condition Icon, to change condition. Figure #2
4. Next re-enter the previous O2 sat results into the new condition.
5. Perform the shunt calculation in the new condition.
6. The Fick Calculation including the measured valve area and all necessary Shunt Calculation results will appear in Hemodynamic Report (3). Figure #3

**Figure #2**

![New Condition Icon](image)
Figure #3

Pressures [mmHg] & Gradients

Condition 1: Rest
HR 60 bpm
LV 121/114
AO 101/66

Valve Press diff Mean Area Area Index CO CI
Fick Aortic 29 25.00 1.10 0.60 3.24 1.75

Condition 2: Rest

Saturations

Condition 1: Rest
HB 12.60 g/100 ml RA 60.0% PA 78.0% AO 95.0%

Condition 2: Rest
HB 12.60 g/100 ml RA 60.0% PA 78.0% AO 95.0%

Cardiac Output (Flows) and Shunts

Condition 1: Rest
CO Type CO(l/min) CI(l/min/m²) Injection-Venous Site Sample/Arterial Site
Fick 12.18 3.24 1.75 RA AO

Condition 2: Rest
CO Type CO(l/min) CI(l/min/m²) Injection-Venous Site Sample/Arterial Site
Fick Shunts
Syst. Flow: 3.24 l/min Syst. Flow Index: 1.75 l/min/m²
L-R Flow: 3.06 l/min L-R Flow Ratio: 0.49
R-L Flow: R-L Flow Ratio: 0.49

Condition #1
Fick Calculation Results
Valve Area Results by Fick
Condition #2
Shunt Calculation Results
QP/QS

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