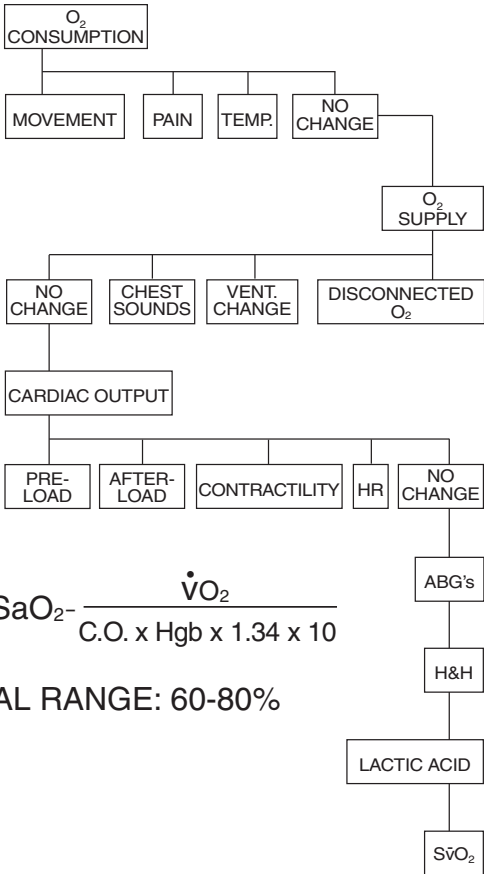


DECISION TREE

If $S\bar{v}O_2$ changes by +/- 10% and is sustained for 5 minutes or longer, profile the patient to identify the following possible hemodynamic changes.



$$S\bar{v}O_2 \approx SaO_2 - \frac{\dot{V}O_2}{C.O. \times Hgb \times 1.34 \times 10}$$

NORMAL RANGE: 60-80%

DERIVED PARAMETERS

$\dot{D}O_2$ (l)	≈	SaO ₂ x CO x Hgb x 1.34 x 10 700-1400 mL/min (520-720 mL/min/m ²)
$\dot{V}O_2$ (l)	≈	(SaO ₂ -SvO ₂) x CO x Hgb x 1.34 x 10 180-280 mL/min (110-160 mL/min/m ²)
CO	=	HR x SV 4-8 L/min
CI	=	CO/BSA (2.8-3.6 L/min/m ²)
SV (l)	=	CO/HR x 1000 50-130 mL/beat (30-50 mL/beat/m ²)
SVR (l)	=	(MAP-CVP)/CO x 79.9 770-1500 dyne sec cm ⁻⁵ (1760-2600 dyne sec cm ⁻⁵ /m ²)
PVR (l)	=	(MPAP-PCWP)/CO x 79.9 20-120 dyne sec cm ⁻⁵ (45-225 dyne sec cm ⁻⁵ /m ²)
RVSWI	=	(MPAP-CVP) x SV x .0136 4-8 gm m/m ²
LVSWI	=	(MAP-PCWP) x SV x .0136 44-68 gm m/m ²

GLOSSARY

ABG	Arterial Blood Gas
CO	Cardiac Output
CI	Cardiac Index
CVP	Central Venous Pressure
$\dot{D}O_2$ (l)	Oxygen Delivery (Index)
H & H	Hemoglobin & Hematocrit
HR	Heart Rate
LVSWI	Left Ventricular Stroke Work Index
MAP	Mean Arterial Pressure
PCWP	Pulmonary Capillary Wedge Pressure
PVR (l)	Pulmonary Vascular Resistance (Index)
RVSWI	Right Ventricular Stroke Work Index
SV (l)	Stroke Volume (Index)
SVR (l)	Systemic Vascular Resistance (Index)
$\dot{V}O_2$ (l)	Oxygen Consumption (Index)