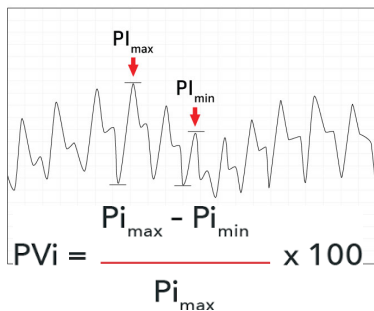


Perioperative Goal Directed Fluid Therapy (GDFT)

Pleth Variability Index (PVI)

Definition of PVI: a measure of changes in the perfusion index during a complete respiratory cycle and allows continuous assessment of respiratory variations in the plethysmographic waveform.



PVI may reflect physiologic factors such as vascular tone, circulating blood volume, and intrathoracic pressure excursions.

PVI is useful in predicting fluid responsiveness in mechanically ventilated patients. PVI at a threshold value of 14% provided 95% sensitivity and 81.2% specificity to predict fluid responsiveness.

PVI is not reliable during peunoperitium in predicting fluid responsiveness and neither in cardiac surgical patients such as CABG, regardless of ventilatory status.

In summary, PVI is a useful noninvasive tool in assessing fluid responsiveness. However, caution needs to be taken when vascular tone is significantly changed.