

**NON INVASIVE ASSESSMENT OF HEMODYNAMIC
RESPONSE TO A FLUID CHALLENGE USING FEMORAL
DOPPLER IN CRITICALLY ILL PATIENT WITH SEPTIC
SHOCK**

Thesis

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Abstract

Septic shock is a subset of sepsis in which underlying circulatory and cellular/metabolic abnormalities are profound enough to substantially cause mortality. Patients with septic shock can be identified with a clinical construct of sepsis with persisting hypotension requiring vasopressors to maintain MAP \geq 65 mm Hg and having a serum lactate > 2 mmol/L (18 mg/dL) despite adequate volume resuscitation. With these criteria, hospital mortality is in excess of 40%. ^(2, 3)

Adequate fluid resuscitation is one of the keystones in the management of severe sepsis. Since severe sepsis is associated with absolute or relative hypovolemia, the aims being to preserve intravascular fluid volume, restore effective tissue perfusion, and reestablish and maintain a balance between tissue oxygen demand and supply. ⁽⁴⁾

Resuscitation of circulatory failure implies volemic optimization, which targets oxygen delivery improvement. ⁽⁵⁾ Predicting fluid responsiveness in critically ill patients at bedside is a great challenge for physicians. Both static and dynamic indices failed to become established. ^(6, 7) Although arterial pulse pressure (PP) variation based on heart-lung interactions and its surrogate appeared as reliable indices to predict hemodynamic effects of volume expansion on several reports. ⁽⁸⁻¹¹⁾ Many recent data underlined misinterpretation conditions observed in most of critically ill patients

Key words: ASSESSMENT OF HEMODYNAMIC RESPONSE TO A FLUID