Rapid Breathing (20/min)
May Present
High Heart Rate (90/min)
Low Urine Output
Lethargy
Low Platelets
Sweating
Fever

SYMPTOMS

HYPERDYNAMIC PHASE
High Cardiac Index
High Cardiac Output
High Blood Pressure
Not Improved by Fluid Resuscitation

HYPODYNAMIC PHASE
Low Cardiac Output
Low Blood Pressure

MULTISYSTEMIC ORGAN FAILURE
DEATH

HEMODYNAMIC PHASES
(blood flow dynamics)

IMMUNOLOGY OF SEPSIS
Recognition of the Stimuli
Proinflammatory Response
Growth Infection
Growth Recognition
Systemic Response
Damage to host leads to DAMPs
Strong Activation of Complement
Coagulation

Proinflammatory Response
Growing Infection
Growing Recognition
Systemic Response
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DAMPS
PAMPS
IL-8
IL-1B
IL-6
TNFα
IL-R1N
TGF-β
IL-10

Complements
C3
C4
C2
C1

Immunosuppression
O2 Tension
Coagulation

Antigen Presentation
Neutrophils, DCs and Monocytes

Depiction and Deletion of DCs and Monocytes
Th1/Th2 Cells
Continued Strong Signaling
Neutrophil NETing
Neutrophil Apoptosis
Clotting
Platelet Depletion

B Cell
Platelet

LEGEND
Monocytes
T Cell
Exocytosis
Antigen Presentation
Neutrophils, DCs and Monocytes
Monocytes
Macrophages
Neutrophils (Live)
Neutrophils (Dead)
Erythrocyte
Dendritic Cells (DCs)