

Systemic Inflammatory Response Syndrome (SIRS) Criteria

Systemic Inflammatory Response Syndrome (SIRS) is an inflammatory state affecting the whole body, which is a subset of cytokine storm. It is the body's response to an infectious or non-infectious insult, and there are specific diagnostic criteria to be met.



PLAY PICMONIC

Must have 2 or more of the following:

Temperature $< 36^{\circ}\text{C}$ or $> 38^{\circ}\text{C}$

Thermometer with Less Than Cold 36 and Greater Than Hot 38

Patients must display either a temperature below 36°C or above 38°C .

Pulse > 90 beats per minute

Heart-timer Greater Than 90

Though it is not classified as tachycardia, patients with a heart rate greater than 90 beats per minutes (bpm) fit this part of the SIRS criteria.

Respirations $> 20/\text{min}$ or $\text{PCO}_2 < 32$

Lung-respirations Greater Than 20 or Partial-pressure-gauge blowing CO_2 Less Than 32

Patients must be either tachypneic, with a respiratory rate greater than 20, or must have an arterial partial pressure of carbon dioxide less than 32.

WBC $< 4,000$ or $> 12,000$ or 10% bands

White-mac-man Less Than (4) Fork-thousand or Greater Than (12) Carton-thousand or (10) Tin Band of young WBC

Another manifestation of SIRS is that patients have leukocytes below 4,000 cells/ mm^3 or above 12,000 cells/ mm^3 or greater than 10% bands (immature neutrophils), which is called left shift.

Mechanism

Subset of Cytokine Storm and Related to Sepsis

Side-toe-kite in Storm and Sepsis-snake

SIRS is a subset of cytokine storm, where there is abnormal regulation of various cytokines. Furthermore, it is related to sepsis, an illness which fulfills the SIRS criteria, and is related to infection.