

1. distinguishing infectious and non-infectious SIRS
2. distinguishing sepsis from septic shock
3. recognition of the presence of nosocomial infection in ICU patients by serial determinations (CRP)
4. diagnosis of ventilator associated pneumonia
5. diagnosis of community acquired pneumonia
6. monitoring the response of infection to therapies (particularly CRP)
7. guidance of duration of antibiotic therapy (PCT)
8. decision on whether to initiate antibiotic therapy in non-ICU setting (PCT)

uses
evaluated

use of
CRP &
procalcitonin
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general

- CRP and PCT are the most common biomarkers to distinguish between sepsis and noninfectious SIRS at the moment although they show suboptimal diagnostic performance.

- Both biomarkers have been tested in a large number of diagnostic studies on infections and sepsis but have yielded great variability of results with wide ranges of sensitivity and specificity.

- These diagnostic studies were performed in heterogeneous clinical settings, and many of them had other methodological limitations in either their design or in data analysis and reporting, which makes it difficult to interpret their overall results and to draw practical conclusions.

- Seemingly, the PCT test has shown marginally better overall diagnostic accuracy than the several varieties of CRP test, especially in some clinical conditions.

- PCT assays are more costly, slower, and less accessible than those of CRP.

- Generally, research demonstrates that PCT is a better indicator of illness severity than CRP.

- Considering CRP kinetics, serial determinations of CRP can be useful for monitoring inflammatory activity, the onset of infections, and patient responses to therapy.