Staying ahead of cytokine storm syndrome

Testing for key inflammation markers

1 of 5
COVID-19 patients
develop severe pneumonia

Shortness of breath

Chest discomfort or pressure

COVID-19 pneumonia is caused by inflammation and fluid accumulation in the alveoli, the site of oxygen absorption and diffusion into the blood stream.

The SARS-CoV-2 virus utilizes the ACE 2 receptor to bind to alveolar cells which are rich in ACE2 receptors. ACE2 receptors are also found in multiple organs and blood vessels.

~5% of severe COVID-19 patients develop a systemic dysregulated cytokine response.

Early detection of inflammation markers can indicate the onset of a cytokine storm and assist clinicians with timely interventions.

As fluid and damage accumulate in the lungs, it becomes more and more difficult for the lungs to absorb oxygen and exchange it for carbon dioxide.

High serum levels of pro- and anti-inflammatory cytokines were found in patients with severe COVID-19.3,4

Key Marker

IL-6*

IL-18
TNF-α
IL-10

Other useful lab tests for cytokine storm patients:

ALT
AST
BIL
LDH
CRE
KIN
PT/INR
D-DIMER
PCT
CREA
CYSC
SAA*
CTNI
CRP
FERR

The onslaught of cytokines can cause multi-organ failure and disseminated intravascular coagulation, both contributing to death.