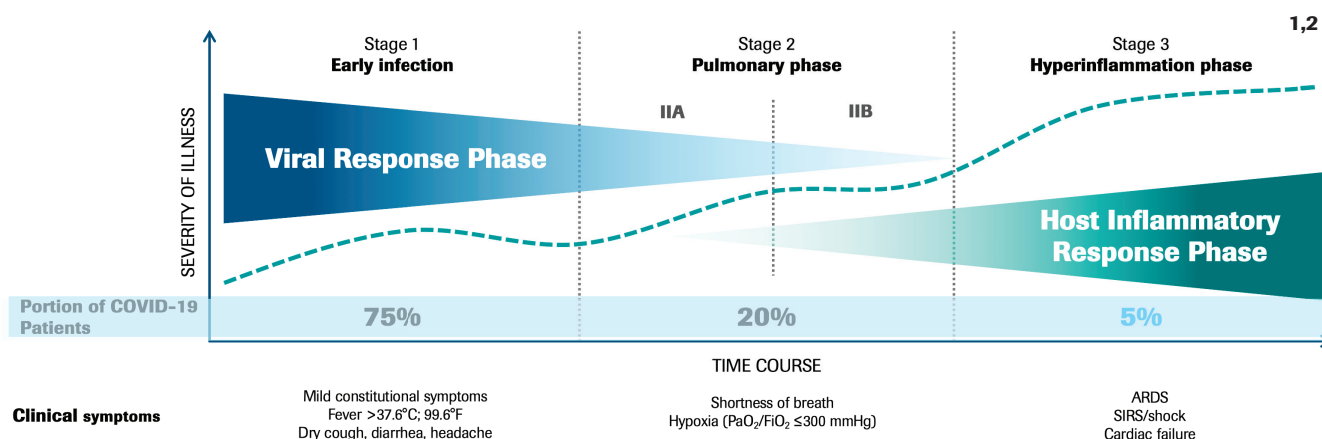


# Laboratory Results Play a Key Role in the Management of SARS-CoV-2 Infected Patients



**Biomarkers may assist in assessing patients along the continuum of the response phase when evaluating multi-organ involvement.<sup>3</sup>**

Coagulation	
<b>D-Dimer (↑)*</b>	Activation of blood coagulation and/or disseminated coagulopathy

Infection	
<b>PCT (N, ↑ or ↑↑)*</b>	Marker of bacterial infection. Can be elevated if bacterial co-infection present and sepsis develops.
<b>Lymphocyte count (CBC) (↓)*</b>	Immunological response to infections

Infectious Disease	
<b>Anti-SARS-CoV-2 (+)</b>	Indicates SARS-CoV-2 exposure and formation of antibodies

Inflammation	
<b>CRP (N, ↑ or ↑↑)*</b>	Marker of inflammation/response to infection
<b>Ferritin (N, ↑ or ↑↑)*</b>	Acute phase protein. May identify chronic inflammation or infection.
<b>IL-6 (↑)*</b>	Proinflammatory cytokine. Marker of inflammation. Aid in determination of risk for Intubation.

General Chemistry	
<b>Glucose</b>	Metabolic abnormalities

General Organ Damage	
<b>Lactate (↑ or ↑↑)</b>	Marker of tissue hypoperfusion. Indicates organ damage and shock
<b>Lactate Dehydrogenase (LDH) (↑)*</b>	LDH levels may be useful to predict disease severity. May indicate organ damage and shock.

Cardiac	
<b>Troponin T (↑)*</b>	Aid in diagnosis of AMI, risk stratification for ACS. Indicates cardiac injury
<b>NT-Pro BNP (↑)</b>	Aid in diagnosis of heart failure and cardiac stress

Hepatic	
<b>Albumin (↓)*</b>	Impairment of liver function or inflammation
<b>ALT (↑)*</b>	Monitoring of liver function. Indicate liver injury.
<b>AST (↑)*</b>	
<b>Bilirubin (↑)*</b>	Liver injury and/or organ damage

Renal	
<b>Urea/BUN (↑)*</b>	Kidney injury
<b>Creatinine (↑)*</b>	Kidney injury
<b>Cystatin C (↑)</b>	Kidney injury

Abnormal results may be: N Neutral, Elevated, Highly Elevated, Decreased depending on the response phase  
<sup>\*</sup>Included in IFCC Biochemical Monitoring of COVID-19 Patients recommended test list<sup>3</sup>

1. J Heart Lung Transplant. 2020 May; 39(5): 405-407.  
 2. Herold T et al. J Allerg and Clin Immunol (2020), doi: <https://doi.org/10.1016/j.jaci.2020.05.008>  
 3. Lippi G & Plembani M. The critical role of laboratory medicine during coronavirus disease 2019 (COVID-19) and other viral outbreaks (2020) In press  
 4. <https://www.ifcc.org/ifcc-news/2020-03-26-ifcc-information-guide-on-covid-19/> (accessed July 15, 2020)