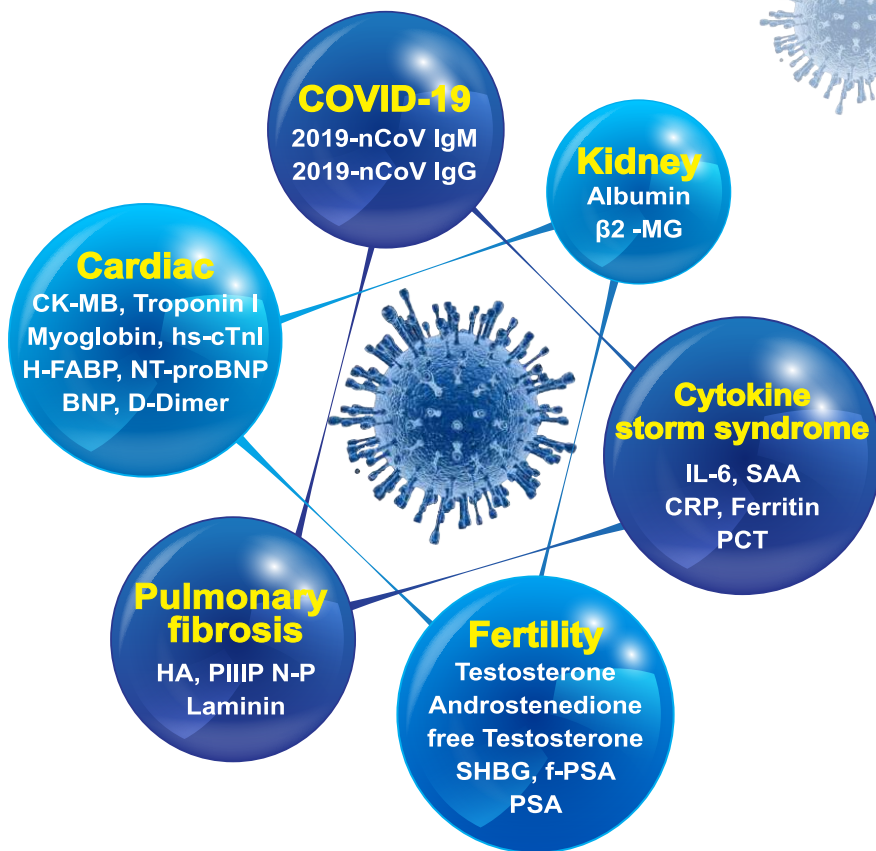




WHAT CAN WE TEST BEYOND THE VIRUS?

SNIBE Provides Joint Detection Solution for SARS-CoV-2



2019-nCoV (official name SARS-CoV-2) could not only lead to COVID-19 (Coronavirus Disease 2019), but also cause other severe symptoms in patients:

1) **Cytokine Storm Syndrome**: Most patients present with elevated level of C-reactive protein (**CRP**) and normal level of procalcitonin (**PCT**, which can differentiate bacterial infection) ^[1]. Level of inflammatory factors (**IL-6, SAA**) often increase in severely or critically ill patients. (Cytokine storm syndrome refers to the overreaction of the immune system, which causes serious inflammatory reaction and indicates the aggravation of the patient's condition.)

2) **Heart and Blood Vessels Injury**: Degenerated or necrosed myocardial cells present, it is essential to test Cardiac panel (**CK-MB, Troponin I, Myoglobin, hs-cTnI, H-FABP, NT-proBNP, BNP**) to monitor cardiac status in case of further heart injury. In severe cases, **D-Dimer** level increases and peripheral blood lymphocytes progressively decrease.

3) **Acute Kidney Injury**: SARS-CoV-2 attacks the kidneys, resulting in elevated level of **Albumin** in urine.

4) **Male Fertility Dysfunction**: The male reproductive function is affected during COVID-19 convalescence, fertility panel (**Testosterone, Androstenedione, free Testosterone, SHBG, f-PSA, PSA**, etc) is suggested to be used to monitor male hormone levels ^[2].

5) **Pulmonary fibrosis**: fibrosis indicators (**HA, PIIP N-P, Laminin**) can be used as early warning indicators of poor prognosis for critical patients with COVID-19 ^[3].

Reference:

[1] Diagnosis and Treatment Protocol for Novel Coronavirus Pneumonia Trial Version 7

[2] Caibin Fan, Kai Li, Yanhong Ding, et al. ACE2 Expression in Kidney and Testis May Cause Kidney and Testis Damage After 2019-nCoV Infection. medRxiv 2020.02.12.20022418.

[3] Ming Ding, Qiang Zhang. Correlation analysis of the severity and clinical prognosis of 32 cases of patients with COVID-19. Respiratory Medicine 167 (2020) 105981.



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