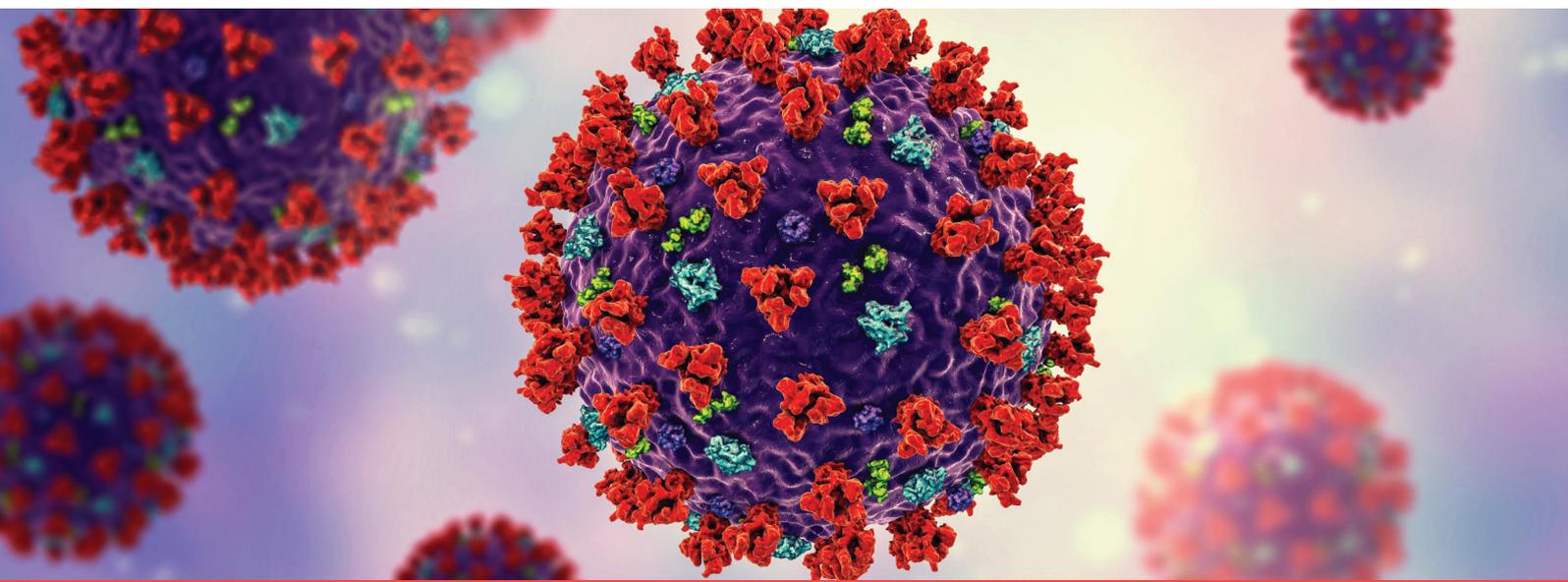
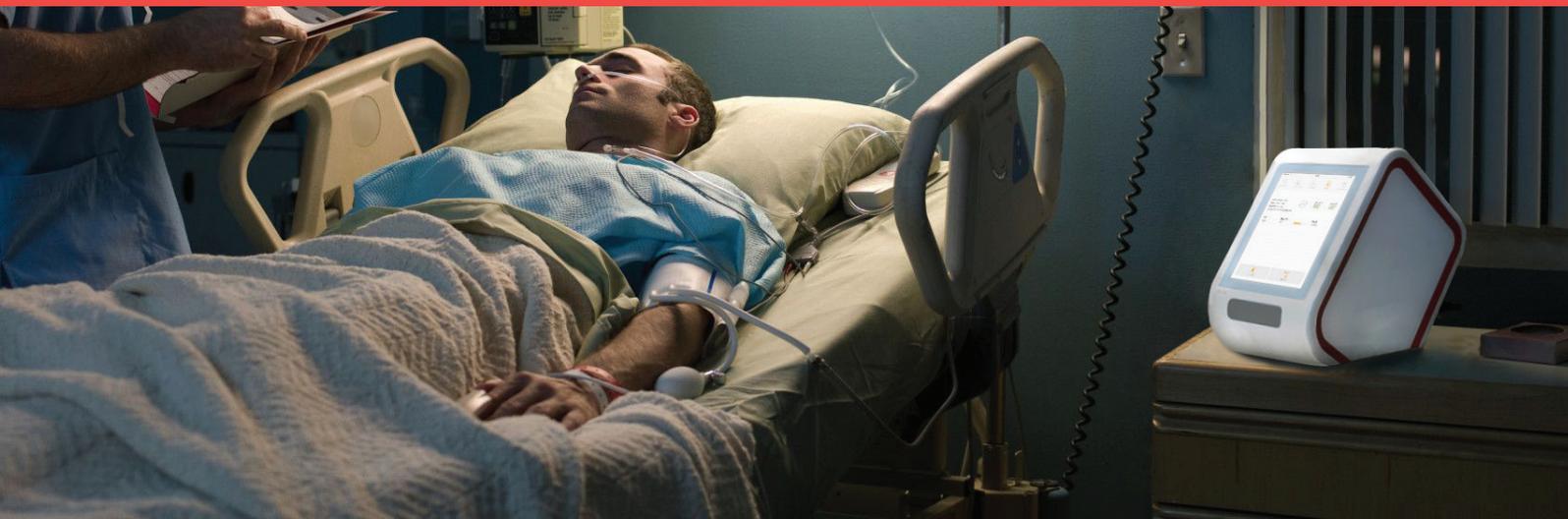


THE FIRST **COVID-19 SEVERITY SCORE** FACILITATING PATIENT TRIAGE



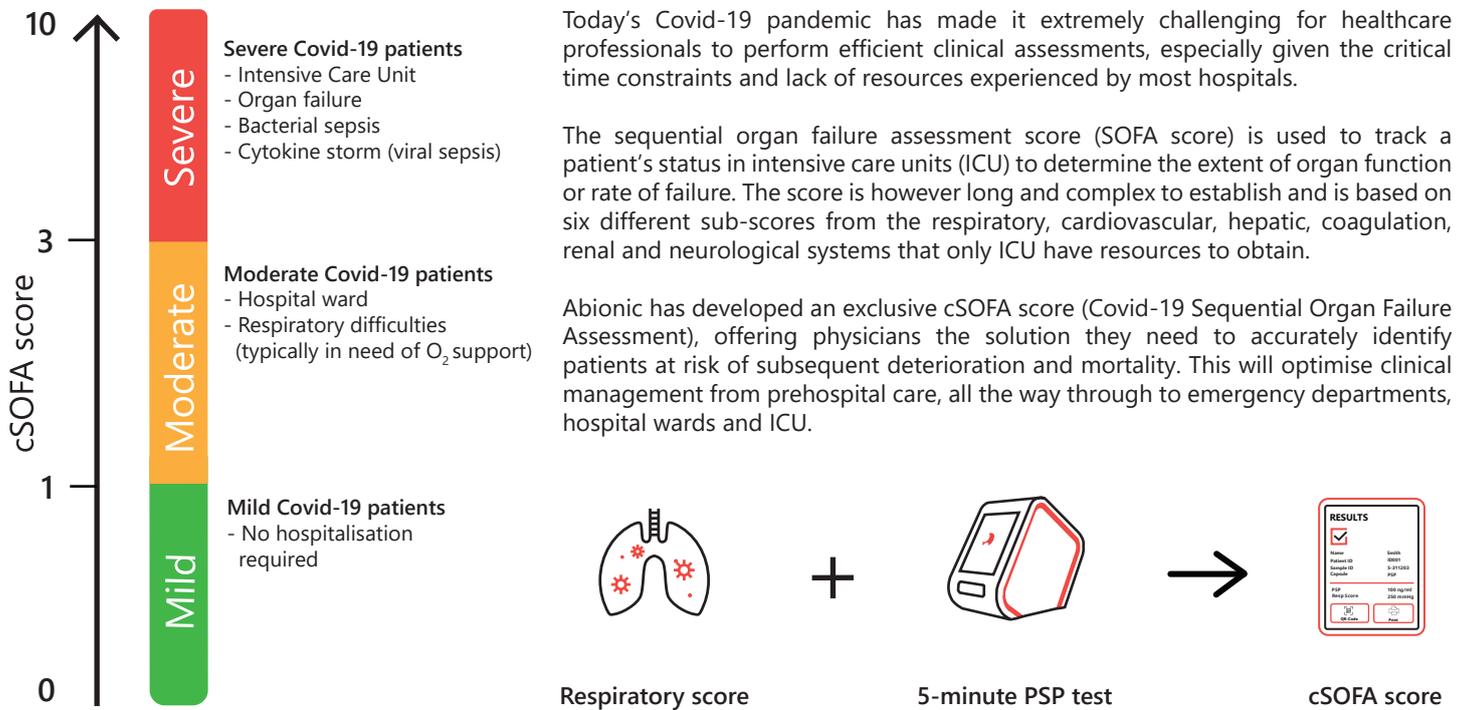
abioSCOPE®

**GET THE cSOFA SCORE IN 5 MINUTES
ASSESS COMPLICATIONS IN COVID-19 PATIENTS**



IDENTIFY COVID-19 PATIENTS AT RISK OF DETERIORATION

The clinical need to assess the SOFA score in Covid-19 patients: get the cSOFA score in 5 minutes

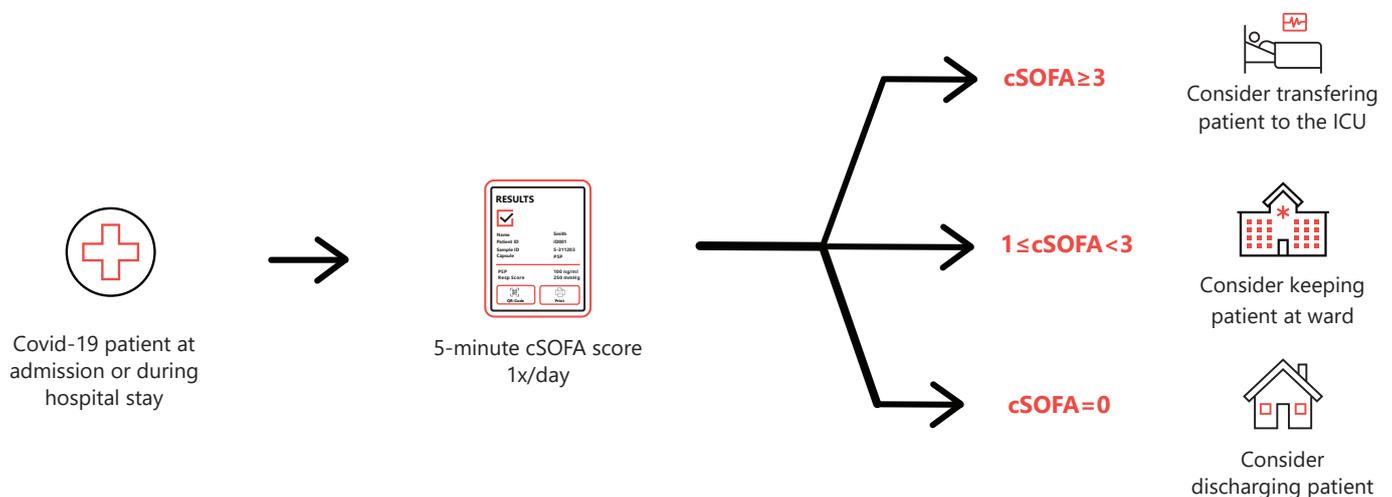


The cSOFA score is a 5-minute Covid-19 severity score to immediately assess your patient's clinical deterioration and to support your medical decision. The combination of a simple respiratory score (RESP) along with the blood biomarker Pancreatic Stone Protein (PSP), defines the cSOFA score, allowing for the severity assessment of an ongoing SARS-CoV-2 infection.

PSP is easily quantified in 5 minutes from a single drop of blood using the CE marked IVD test on the abioSCOPE®.¹

THE FASTEST COVID-19 SEVERITY SCORE FACILITATING PATIENT TRIAGE

cSOFA as Covid-19 Sequential Organ Failure Assessment



**FIRST COVID-19 SEVERITY SCORE
FACILITATING PATIENT TRIAGE**



CLINICAL EVIDENCES

The cSOFA score is composed of two easy-to-measure parameters and correlates well with SOFA



A simplified respiratory component (RESP)

The RESP component is derived from the more complex SOFA score, which is used to track the status of a patient in the ICU and to determine the extent of organ function or rate of failure. However, this score is based on six different sub-scores making it complex to obtain and inaccessible outside of the ICU.



PSP blood biomarker on the abioSCOPE device

PSP is characterised by its diagnostic accuracy in predicting sepsis and/or multiple organ dysfunction in various types of critically ill patients². As of today more than 20 publications demonstrate that PSP correlates well with several sub-scores of SOFA. Preliminary data from the first European wave of SARS-CoV-2 infections shows a strong link between PSP concentration and the severity of these patients.

Respiratory System	RESP score	PSP ng/ml	PSP score	cSOFA score
Mechanically ventilated	3	>600	7	10 ↑ 0
Need O ₂ support	2	≤600	6	
Difficulties to breathe	1	≤500	5	
No breathing problem	0	≤400	4	
		≤300	3	
		≤200	2	
		≤170	1	
		≤120	0	

Table 1. Score table combining RESP score with PSP score to obtain cSOFA. An increasing score correlates with increasing severity, up to a maximum of 10.

The combination of PSP and the RESP component, gives the cSOFA score which enables a **rapid** and **accurate** assessment of the **severity** of the patient.

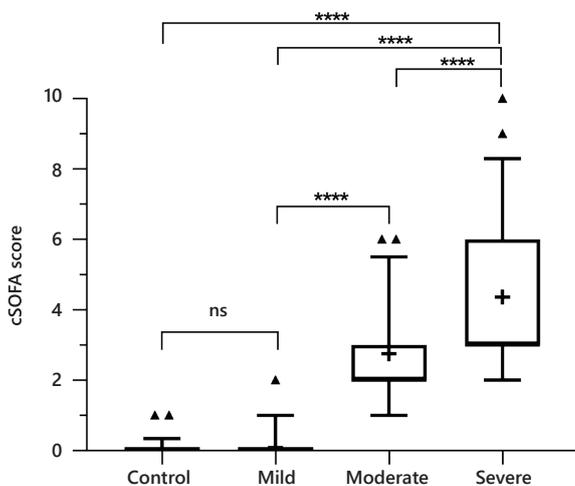


Figure 1. Distribution of control (healthy non-Covid-19 patients), mild, moderate, and severe Covid-19 patient groups against cSOFA scores, computed from the PSP values and the RESP score.

Cut-off	SN (95 %CI)	SP (95 %CI)
Non-hospitalised patient cSOFA=0	100 (96.4 to 100)	94.8 (88.5 to 97.8)

Table 2. Diagnostic performances of cSOFA at a cut-off of 0 to determine patient non-hospitalisation. SP stands for specificity, SN for sensitivity.

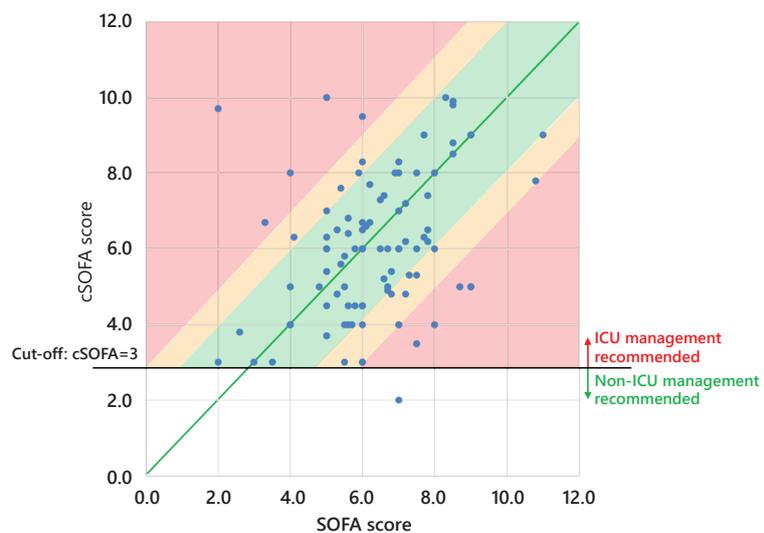


Figure 2. The cSOFA and SOFA score demonstrate a good correlation on 96 Covid-19 patients admitted to the ICU between March and April 2020. Each point is the average of the cSOFA and SOFA score over the entire length of stay.

Cut-off	SN (95 %CI)	SP (95 %CI)
Transfer patient to the ICU cSOFA≥3	95.3 (84.3 to 98.8)	84.9 (78.1 to 90.3)

Table 3. Diagnostic performances of cSOFA at a cut-off of 3 to determine Covid-19 patients' severity. SP stands for specificity, SN for sensitivity.

The PSP test and the RESP score combined into the cSOFA score, enables the discrimination between non-severe and severe SARS-CoV-2 infection among adults, with a p-value <0.0001.

**FIRST COVID-19 SEVERITY SCORE
FACILITATING PATIENT TRIAGE**



“ The cSOFA is a great tool to help predict these possible clinical deteriorations and to guide patients through the hospital system, which is certainly very useful in these times of healthcare system overload. ”



Dr. François Ventura, MD, MBA

“ In the case of Covid-19, better understanding and predicting Covid-19 disease severity [...] are essential to effectively combatting this deadly respiratory pandemic. There are calls for a multitiered, Covid-19 diagnostic strategy incorporating rapid, point-of-care host immune testing to identify patients at risk of disease and progression.³ ”

The Lancet Global Health



Overall, the **fast and highly accurate severity cSOFA score** enables healthcare professionals to efficiently assess **Covid-19 patients within 5 minutes** to measure the likelihood of **clinical deterioration**. This facilitates patient triaging and assignment to the appropriate level of care right from admission, whilst also liberating vital clinical resources, **key to optimising patient management**.

DISRUPTIVE NANOTECHNOLOGY BASED PLATFORM

5-minute PSP test on the abioSCOPE®



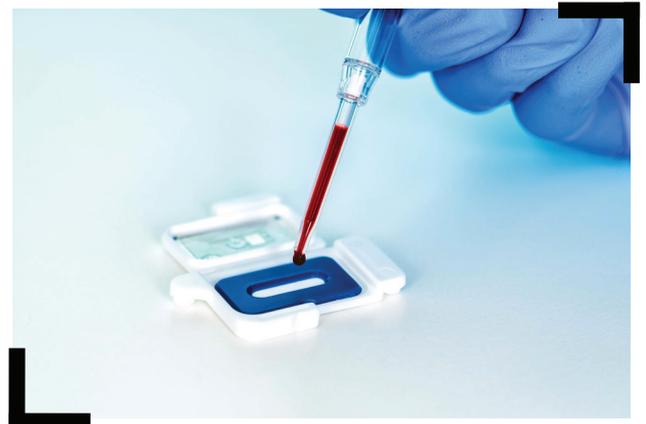
Rapid turnaround time
5 minutes from blood sampling to actionable results



Easy to use
Simple 4 steps with a blood volume of 50 µl from a fingerstick



No maintenance
Contamination-free device, no washing step required



Laboratory quality results
Laboratory equivalent performances



Connectivity options
HL7, Ethernet to HIS/LIS, barcode scanner and QR code



Complementary menu in development
Available tests: allergy, ferritin
Coming soon: D-Dimer, CRP among others

References:

1. Putallaz L, van den Bogaard P, Laub P, Rebeaud R. Nanofluidics Drives Point-of-care Technology for on the Spot Protein Marker Analysis with Rapid Actionable Results. J Nanomed Nanotech. 2019 Oct;10(5):536
2. Eggimann P, Que YA, Rebeaud F. Measurement of pancreatic stone protein in the identification and management of sepsis. Biomark Med. 2019 Feb;13(2):135-145
3. Ginsburg A S, Klugman K P. COVID-19 pneumonia and the appropriate use of antibiotics. The Lancet Global Health. 2020 Nov; Volume 8, Issue 12, E1453-E1454.

