METHOD FOR PREDICTING MORTALITY IN COVID-19 PATIENTS

The Need

Currently, the recommended laboratory method to diagnose SARS-CoV-2 acute infection is RT-qPCR in respiratory samples. Some, diagnostic tests for COVID-19 have also been designed to detect SARS-CoV-2 antigen in nasopharyngeal secretions and have been included in the first line of detection.

However, there is an unmet medical need of finding highly sensitive and specific tests, for those patients that arrive to emergencies , able to predict mortality risk, the presence of viremia and/or high degree of viral replication in earlier stages. Very often the identification of bad prognosis patients arrives too late for the efficiency of treatments.

The Solution

This technology provides an in vitro method able to select, patients suffering from Coronavirus infection with a bad prognosis and/or higher mortality risk and that may benefit from receiving an antiviral therapy or ICU admission.

The solution is based in determining the presence and level of a Coronavirus structural protein in plasma, serum or blood samples obtained from the patient, being this level correlated with existence of viremia and/or of high degree of viral replication

Innovative Aspects

This type of test would bring the opportunity to:

1. Early stage and rapid identification of COVID patients with higher mortality risk and to be admitted in ICU.
2. Identify patients that could benefit the most from antiviral therapy.
3. Use an easy to perform prognosis from minimally invasive samples from plasma, serum or blood samples

The IVD can be easily implemented for analysis in health services' currently available devices.

Stage of Development:

The method is currently being validated by the group in a bigger cohort of patients arriving though emergency services at hospitals.

Blood Test by Nick Youngson CC BY-SA 3.0 Alpha Stock Images

Intellectual Property:

• Priority European Patent 22 December 2020

Aims

Looking for companies to develop, and commercialise the IVD thought licence or collaboration agreements.

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