

The Value of Diagnostic Information in Acute Respiratory infections – Observations from the COVID-19 pandemic

Executive Summary

The COVID-19 pandemic¹ has exposed governments and healthcare systems to unprecedented challenges, facing the surge of a novel, highly contagious virus that can potentially cause fatal forms of acute respiratory infections. With global public health at stake, policymakers were looking for solutions to tackle this situation as fast as possible and came to appreciate the significant value of information at hand gained from *In vitro* Diagnostics (IVDs).

During the pandemic, IVDs have offered a wide spectrum of information that helps to control the spread of SARS-CoV-2 in the population and improve the management of patients with acute respiratory tract infections:

- Information gained from IVD testing contributes to slowing down or even breaking the transmission chains of SARS-CoV-2 and consequently preventing COVID-19 diseases. Thanks to diagnostic information, ongoing SARS-CoV-2 infections, including in people without symptoms, can be detected in a timely manner. Therefore, appropriate social distancing measures can be put in place, both at individual (isolation) and population (lockdown) level.
- Diagnostic information facilitates optimal disease management for patients with acute respiratory tract infections, not only stemming from SARS-CoV-2 but also from other co-circulating infection agents such as influenza viruses. Information obtained from IVD tests allows to differentiate other types of respiratory infections with similar presentation to COVID-19 (including influenza). This can help improve diagnosis, treatment, and care.

As outlined in the Value of Diagnostic Information Concept,² throughout the pandemic, diagnostic information has had a tangible and positive impact on citizens, healthcare professionals, healthcare providers, health systems, and society as a whole.

By carving out the value of diagnostic information in acute respiratory infections against the background of the COVID-19 pandemic, this case study highlights the need for appropriate policy actions to unlock the full potential of diagnostic information – in times of public health crises but also beyond. The healthcare challenges now and in the future are immense: respiratory tract infections other than COVID-19, such as influenza, constitute a significant disease burden in many European countries every season (despite available immunisation). Simultaneously, cardiovascular diseases³ remain the number one cause of death in Europe. The better use of diagnostic information can be part of the solution to address these challenges.

Hence, with this case study, we would like to make a series of recommendations for policymakers to consider:

- A. Enhance integration of IVD information in healthcare systems;
- B. Raise awareness of IVDs through multi-stakeholder engagement at EU and national level;
- C. Build an enabling ecosystem that recognises and rewards the value of diagnostic information and hence incentivises future IVD innovation.

¹ In the context of this case study, we refer to 'COVID-19 pandemic' to indicate the outbreak of SARS-CoV-2 started in 2020.

² Wurcel V. et al., [The Value of Diagnostic Information in Personalised Healthcare: A Comprehensive Concept to Facilitate Bringing This Technology into Healthcare Systems](#), 22 July 2019

³ MedTech Europe, [The Value of Diagnostic Information in Heart Failure](#), 31 March 2020