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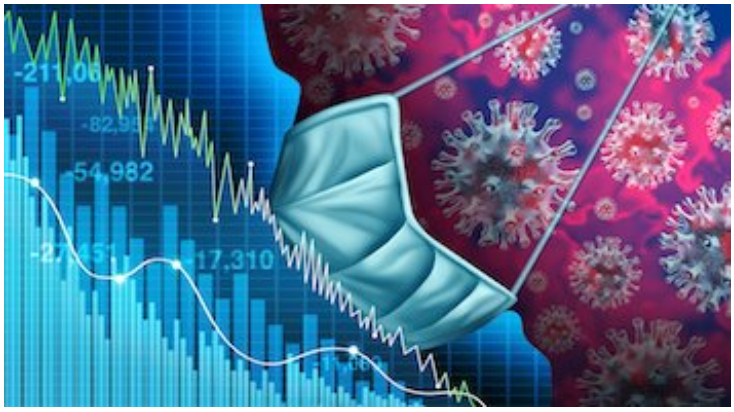
Antiviral Agentsâ?? As Most Effective Therapeutic Option for Treating COVID-19: Course5 Intelligence

10 July 2020 | Reports/white papers

Anti-inflammatory drugs, convalescent plasma therapy are opined to be the next-best treatments; AI, ML, Big Data and IoT emerge as powerful tools



Course5 Intelligence, a leading analytics and AI solutions provider headquartered in India, has released a research report that provides unique insights and perspectives on the diagnostics and treatment of COVID-19. The COVID-19 Report encapsulates feedback collected through focussed interviews with 30 leading physicians and infectious disease specialists across six countries i.e., US, Germany, France, Italy, Spain and UK to understand key challenges in the diagnosis and treatment of the disease.

According to the report, 73 percent doctors cited ‘antiviral agents’ as the most effective therapy for treating COVID-19. Using ‘anti-inflammatory’ drugs to treat patients was found to be the second best alternative by around 13 percent of the doctors, followed by ‘convalescent plasma’ therapy, across the surveyed countries. The only exception was Italy, where physicians found ‘convalescent plasma’ therapy more promising than any other treatment.

While surveying the challenges faced by physicians in diagnosing COVID-19 patients, 63 percent doctors were of the view that ‘sensitivity and specificity issues with testing kits’ is the biggest challenge in diagnosis, followed by ‘restrictive criteria on who should be tested’ which received 60 percent votes. ‘Shortage of testing kits’ and ‘turnaround time for processing’ were viewed as the next biggest challenges.

On the other hand, 80 percent physicians cited ‘ineffective therapies’ as the principal challenge in treating COVID-19 patients. ‘Large affected population’ and ‘insufficient or late diagnosis’ were the second and third biggest challenges and received 70 percent and 50 percent votes respectively. Interestingly in Germany, 50 percent of the doctors voted for ‘insurance coverage’ as the second biggest challenge in treating patients affected with COVID-19.

The report further notes that several regulatory agencies around the world such as U.S. Food and Drug Administration (US FDA) and the European Medicines Agency (EMA) among others have been issuing new guidance to help accelerate development and approval of diagnostic tests, therapies and vaccines for COVID-19. This guidance ranges from emergency use authorization and expedited regulatory reviews and approvals to assist with clinical trial design.

The global fight against COVID-19 has found powerful tools in the form Artificial Intelligence, Machine Learning, Big Data and IoT technologies that are playing a key role in drug discovery and development, diagnostics, disease awareness and monitoring, and patient and resource management. These transformative technologies, both separately and in combination with each other, have enabled real-time collection and analysis and transmission of data. The data, along with the devices themselves, create the Internet of Medical Things (IoMT), which when coupled with other digital technologies, establishes a highly interconnected digital ecosystem that collects real-time data to be used by AI to comprehend healthcare trends, design innovative new drugs and predict treatment outcomes.

Ashwin Mittal, CEO of Course5 Intelligence, said: “The report gives an insight into the most recent medical, regulatory, and technological advances in our global response against the COVID-19 pandemic. The global healthcare system has shown tremendous resilience over the past few months with collaborations between pharmaceutical companies, research institutes, public health bodies and governments like never before. Our report is designed to help and to provide useful insights to all of these stakeholders in the fight against the pandemic. While the fight is far from over, our collective resolution coupled with technological advancements makes us hopeful for a brighter tomorrow.”

Course5’s COVID-19 report maps the pathology of the disease, advances in diagnostics, therapeutic interventions covering treatment and vaccines, and the role of AI and digital technologies in the fight against the pandemic. The report also compares COVID-19 with SARS and MERS and tries to draw lessons learned from past epidemics to aid policymaking during COVID-19.