

Assessment of worldwide COVID-19 transmission landscape for predicting its upcoming severity along with a clinical update for its prevention

Adhyeta Choudhuri¹, Maskura Khatun¹, Arnab Bandyopadhyay¹, Udayan Dasgupta¹,
Sufia Chowdhury¹, Anirban Biswas¹, Indrani Samanta¹, Dipanjana Das¹, Debolina Sinha¹,
Anantaa Ghatak¹, Rima Das¹, Sankar Ghosh¹, Chinmay Saha¹, and Sharbadeb Kundu¹

¹University of Kalyani

October 23, 2020

Abstract

The recent COVID-19 pandemic has created havoc across the globe. Although there are several controversies regarding its origin, the worldwide scientific fraternity currently indulges in developing various therapeutic strategies to combat this threat. Consequently, we aimed to provide a comprehensive evaluation of this pandemic's global transmission landscape to get an insight into its imminent fate on global populations. For this, we have analyzed the data on daily reported COVID-19 cases for 294 days since inception, i.e., from 31 December 2019 to 19 October 2020, in 210 countries across the five continents available in the ECDC database. Additionally, we have summarised an up-to-date list of currently available/under trial 23 drugs and vaccines to provide a consolidated reference to those who have a growing interest in knowing the status of related repurposed drugs and vaccines and to become acquainted with their mechanism of actions for preventing the pathogenesis of SARS-CoV-2 into the human host. We performed an extensive literature review to justify our findings and get the latest know-how on the COVID-19 pathogenesis. Our findings show that India is presently in the most critical condition, where the maximum COVID-19 cases (19.37%) are reported globally in the last 14 days, which has turned into a major concern. So the government should give priority to deal with this pandemic. Besides, American and European countries are also in a risky position, as they harbor 33.31% and 34.52% of total COVID-19 cases in the last 14 days, respectively. The sudden spurt in the number of COVID-19 cases in Europe due to the beginning of extensive testing probably reflects the relaxation in policies for controlling this pandemic. Nevertheless, we should make predictions on how this virus would evolve further, which might help us design a 'magic compound' that can prevent any likely situation.

Hosted file

TBED_COVID-paper_2020_23Oct.pdf available at <https://authorea.com/users/369763/articles/488567-assessment-of-worldwide-covid-19-transmission-landscape-for-predicting-its-upcoming-severity-along-with-a-clinical-update-for-its-prevention>



