

The Deluge

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How resilient is the human race? How much strength, perseverance, adaptability, and ingenuity does humanity possess to combat this scourge named COVID-19? It has come back with a vengeance—the second wave or Tsunami to be precise, flooding hospitals with greater than 72,000 cases per day in India at present (March 31, 2021). The new mutant avatars are infecting younger, healthier people and that too in a faster, more efficient way.¹

We never seem to learn from our mistakes and probably let our guard down too soon when the daily case count went down in December and January. The early warnings were coming from February onward but mass gatherings, be it social, political, religious, or cultural, continued often without the basic safety protocols being honored.

Any pandemic comprises various phases—reaching a peak of human-to-human transmission followed by a post-peak phase and post-pandemic stabilization. In the post-peak phase, there may be recurrences or surges of the cases called “waves.”²

It is of prime importance to be prepared for such subsequent waves. To the extent possible, pandemic preparedness should aim at strengthening existing systems rather than developing new ones and should be evidence-based. Treatment largely depends on accumulated data on the observed symptomatology, pathogenesis, and pathology as the pandemic progresses.³

Early identification of an emerging mutant or “variant of concern” by genome sequencing is of utmost importance to limit its spread. With the rapidly acquired knowledge about the behavior and molecular characteristics of a newly mutated virus and the relevant clinical samples being accessible, public health measures can urgently be mobilized.⁴

To reduce the spread of the virus, both nonpharmacological and pharmacological intervention strategies are to be instituted.

Stockpiling of devices, such as mouth masks, protective clothing, sanitizers for the public at large, and personal protection equipment (PPE) for healthcare workers, is essential, and these should be procured during “peacetime,” i.e., times of lower incidence, with agreements in place for the supplies of PPE during a surge without interfering with the regular hospital routine for nonpandemic patients. Platforms should be developed for the rapid development of broadly protective antiviral vaccines that can be produced either directly or after further adaptation to the newly emerged variant virus. Sufficient supplies and production capacity for antibiotics against secondary bacterial infections and platforms for repurposing of existing antivirals developed against other viruses, based on shared working mechanisms, broadly protective human monoclonal antibodies that can be produced either directly or after an adaptation to the newly emerged variant, as well as biological response modifiers should be developed.

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This should be based on accumulating data about the natural history and insights into the pathogenesis of the infection.^{5,6}

A strategy to ensure adequate mutual communication between scientists, policymakers, and the public is desirable to implement all policy measures. Adequate resources must be allocated for all aspects of pandemic response.⁷ There is a clear need for the countries to have the capacity to maintain an effective alert and a response system to detect and quickly react to outbreaks. Responding to pandemic threats requires global cooperation and participation.

However, the most promising measure to be adopted at present is to complete the mass vaccination drive, which is a Herculean task in a country with a populace of 139 crores.⁸ The impediments are an enormous population and also the fact that children, who are excluded from the beneficiary list, are the greatest carriers. Another aspect is that the currently available vaccines have an efficacy of 60 to 65%, and the immunity takes about eight weeks to develop. Hence, physical distancing, hand hygiene, and masks are our most trusted saviors.

At present, there is a scarcity of beds, oxygen, drugs, caregivers, doctors, nurses, and even crematoriums and burial grounds and an abundance of ailing bodies and corpses. The third wave is sweeping countries in Europe and is likely to hit India around July. Darwin had spoken of natural selection and survival of the fittest. One who is prepared for the future shall be the fittest to overcome this impending devastation. As Benjamin Franklin famously said, “By failing to prepare, you are preparing to fail.”

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