The Day After···Efficacy: The Long Road Back to Normalcy

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The COVID-19 pandemic and its consequences are a grim reminder of the disruptive and destructive potential of epidemic infectious diseases. The unprecedented effort to develop vaccines against the etiologic agent of COVID-19, the coronavirus SARS-CoV-2 has accelerated the typical 5-10 year development timeline into less than 12 months, as the results from interim analyses of ongoing Phase III trials of SARS-CoV-2 vaccines are anticipated shortly. Many anticipate that one, or several, of the vaccines will show protection against disease or infection and be safe, but beyond the preliminary proof of efficacy and safety, what additional work is needed for a COVID-free future (if this is possible). The vaccine(s) will need to be manufactured, billions of doses, at high quality, and will then need to be distributed around the world and allocated with respect to access and equity to people everywhere. At the same time there are important additional questions. Scientifically, we need to optimize vaccine doses and schedules, determine correlates of protection, understand the real-world effectiveness of the vaccines and their impact on herd immunity, ensure long-term vaccine safety, and minimize confusion around emergency use and licensure. At the same time a number of sociopolitical issues may arise out of opposition to vaccination, or the continuation of other measures to reduce the risk of infection. The work of vaccination begins.

KEYWORDS

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