



COVID-19 in Nepal: Diagnostic and Management Dilemma



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Dear Editor,

An outbreak of coronavirus disease 2019 (COVID-19) caused by a novel coronavirus (SARS-CoV-2) has created a global health crisis.¹ Globally, there have been more than 53 million confirmed cases causing more than 1.2 million deaths.² Although the World Health Organization (WHO) reports an overall decrease in weekly cases in Southeast Asia, COVID-19 cases are rising sharply in Nepal.³ As of November 12, 2020, Nepal has documented the pandemic in all seven provinces and 77 districts, confirming 204 242 cases and 1189 deaths (Figure 1).⁴ Out of the total number of confirmed cases, 164 592 cases have recovered while 38 461 active cases are in self-quarantine via home isolation. Among critically ill patients with COVID-19, 379 are in the intensive care unit (ICU) from which 78 cases are on ventilation support.^{2,4}

Due to the limited critical care delivery infrastructure, the COVID-19 pandemic has caused an unparalleled health crisis in Nepal. There is a lack of adequate PPE (personal protective equipment), standardized quarantine and isolation system, and insufficient testing kits for SARS-CoV-2 detection in the laboratory creating health havoc nationwide. Since the government has lifted the nearly four-month lockdown, the numbers of COVID-19 infected cases and death tolls are skyrocketing in Nepal.

To identify people infected with SARS-CoV-2 and prevent the further spread of the disease, diagnostic testing remains

crucial.⁵ Currently, a total of 67 COVID-19 designated diagnostic laboratories in Nepal, of which approximately a third are from the private sector. With the rise of newly infected cases throughout the nation, most of the diagnostic laboratories are facing shortages of reagent supply, instrument access, and increased staffing needs. Consequently, swab samples collected for testing are being piled up in the laboratories resulting in a serious delay in sample processing and their results.^{6,7} This situation has further resulted in frustration, boredom, and infection fears among people living in various quarantine and isolation centers across the country.

The ongoing, unprecedented outbreak of COVID-19 is straining the laboratory services and other areas of healthcare interventions in Nepal. Even though the WHO considers the necessity for countries to prioritize diagnostic testing to contain the coronavirus spread,⁸ Nepalese government is not doing adequate testing while lacking timely decisions that are based on scientific evidence.⁹ Adequate testing means fewer people in unnecessary quarantine, lower load on hospitals, and faster contact tracing accordingly preventing onward transmission and spread of the disease. Therefore, the government of Nepal should emphasize more on molecular diagnostic technologies for COVID-19 and make the diagnostic facilities affordable and accessible in all districts of Nepal. Additionally, to limit the socio-economic and mental health burden of the ongoing pandemic,⁹ both the states and the federal government in

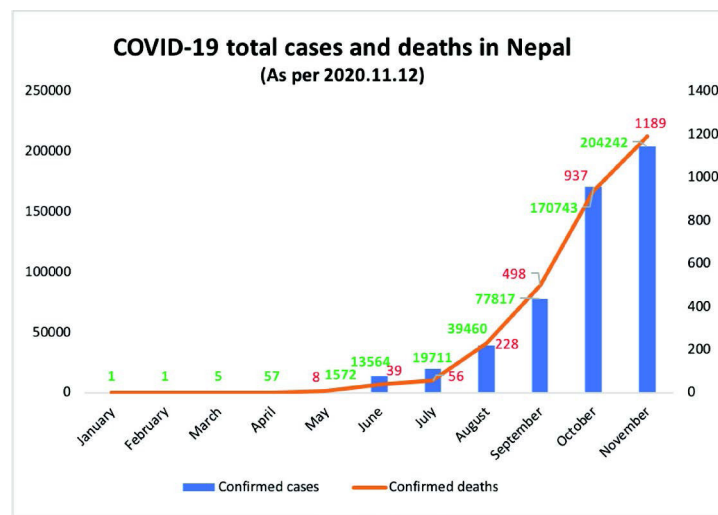


Figure 1. The Number of Confirmed COVID-19 Cases (Green-Colored Text) and Deaths (Red-Colored Text) in Nepal

coordination with the public health authorities must continue to ensure: (1) effective public services, (2) strategic thinking and research-based decisions, (3) efficient and fair allocation of the health care resources, and (4) continuing collaborative and people-focused leadership. At last, this might be the right time for the government to take a national-level approach to strengthen the diagnostics capacity, manage the risks of a COVID-19 pandemic, and attain a state of preparedness for possible future outbreaks and pandemics, by uniting all government institutions, civil society, and the private sector.

Authors' Contributions

PS and KP contributed equally to the manuscript. RK and ST helped in providing the necessary information and writing the manuscript. All authors read and approved the final manuscript.

Conflict of Interest Disclosures

The authors declare that they have no conflicts of interest.

Ethical Approval

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