

# IS NEPAL CAPABLE ENOUGH TO TACKLE THE COVID-19? (SHORT REVIEW)

\*Sitaram Khadka<sup>1,3</sup>; Muhammad Abdul Jabar Adnan<sup>2</sup>; Yogesh Bajgain<sup>1</sup>; Janak Shahi<sup>1</sup>; Tank Prasad Yadav<sup>1</sup>;  
Ravi Prasad Gupta<sup>1</sup>; Usman Rashid Malik<sup>4</sup>

<sup>1</sup>Punjab University College of Pharmacy, University of the Punjab, Lahore, Pakistan

<sup>2</sup>Department of Sports Sciences & Physical Education, Punjab University, Lahore, Pakistan

<sup>3</sup>Shree Birendra Hospital; Nepalese Army Institute of Health Sciences, Kathmandu, Nepal

<sup>4</sup>School of Pharmacy, Xian Jiatong University, Xian, China

\*Corresponding Author: [sitaramkhadka5693@gmail.com](mailto:sitaramkhadka5693@gmail.com)

**ABSTRACT:** COVID-19 is an infectious disease characterized by respiratory illness, which first appeared as an outbreak in Wuhan city in China and is declared a pandemic by WHO on 11 March 2020. The number of cases and deaths are increasing exponentially around the globe. There are altogether three confirmed cases in Nepal till now. As Nepal is a country of low-economic income, landlocked between India and China, and where the economy greatly depends upon the remittances of foreign workers and tourism, there is an increasing risk of infections from persons with travel history from foreign countries in Nepal. In the context of failure to manage COVID-19 even by developed countries, Nepal cannot adequately handle the situation in case of a massive outbreak. Therefore, the prime objective is the preventive measure which has been applied with full efforts at all levels, and support from people residing there is greatly needed to prevent the disaster.

**Keywords:** COVID-19, Nepal, Preventive measure, Outbreak

## INTRODUCTION

COVID-19 is an infectious disease caused by a new strain of coronavirus named Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) that causes a respiratory illness with the symptoms of fever, cough, shortness of breath and later death [1, 2]. The outbreak was first detected in Wuhan City in China in late December 2019. With the first death reported on 11 January 2020 in China, the disease started rising exponentially compelling World Health Organization (WHO) to declare a Public Health Emergency of International Concern (PHEIC) on 31 January 2020. WHO then released a Strategic Preparedness Response Plan (SPRP) to manage the disease worldwide and later declared it as a pandemic on 11 March 2020 due to the over 118,000 reported cases from 110 countries around the globe with the sustained risk of further global spread [3, 4, 5]. There are now 375,498 cases affected by COVID-19 around 196 countries in the world with 16,362 deaths till date (25 March 2020) assessed with a mortality rate of 3.4% [6, 7].

## STATUS AND ACTIVITIES

Three cases have been confirmed in Nepal on 23 January, 23, and 25 March 2020 in patients with travel history in China, France via Qatar, and UAE, respectively [8, 9]. The total number of cases reached 3 along with the fully recovered first case. Until now, 610 tests are conducted on suspected patients in Nepal [9].

Nepal is a country of low-income economy that is landlocked with India, where the cases are growing with the data of total cases of 606 and deaths of 10, and China from where the cases were originated and still on the topmost list with total cases of 81,218 and deaths of 3281, though the number of new cases is declining out there [10]. As the economy of Nepal largely depends upon the remittances of foreign workers and tourism, along with agriculture, there is an increasing risk of infections from the persons with travel history from foreign countries in Nepal. The healthcare facility in Nepal is not up to the level of developed countries. Therefore, in case of outbreaks like that of China

or Italy, Nepal cannot properly handle the situation, so the prime objective is to apply preventive measures and readiness preparations which are being practiced though there is lack of sufficient healthcare expertise, facilities, labs for investigation, testing kits, equipment like Personal Protective Equipment (PPE) to deal with for healthcare workers and items like hand sanitizer and masks for normal public as well. The black marketing of face masks and hand sanitizer has led the people into difficulty for safety measures [1, 12]. The medicine short supply problem is another issue to be faced due to the travel ban and lockdown as substantial amounts of raw materials are imported from China [13].

With the WHO guideline to develop a country-level operational plan to support national governments to prepare for and respond to COVID-19 in line with the SPRP [3], Nepal Government has taken various measures for the prevention and management of COVID-19. The Ministry of Health and Population (MOHP) has ordered all the healthcare institutions to take care of COVID-19 suspected cases in the isolation bed and to send the throat swab to the National Public Health Laboratory in Kathmandu, the only laboratory capable of COVID-19 testing with a capacity to conducting 500 tests per week and stocked with 1,000 viral transport media (VTM) kits for the transport of samples, following protocol without referring to other hospitals [14, 15, 16]. Nepal Government has assigned Sukraraj Tropical and Infectious Disease Hospital in Kathmandu as the essential medical Hospital for COVID-19 treatment and built up a transitory emergency Hospital in Chitwan as Bharatpur Corona Special Hospital. A gathering of the significant level coordination board of trustees for avoidance and control of COVID-19 chose to include 115 ICU beds and 1,000 isolation beds in the health care units of Kathmandu Valley along with 120 ICU beds in emergency health care units in different territories [17]. Provincial governments have also prepared for preventive measures with the establishment of quarantine centers, ICU and isolation beds, and help desk at different checkpoints with

experts on duty. The surveillance area has been increased by starting a fever clinic focusing on especially geriatric patients, patients with comorbidities, health care workers. To avoid the crowd and to focus on the management of COVID-19, the hospitals in Nepal are discouraging regular medical services, minor surgical procedures, follow up visit amidst COVID-19 pandemic [9]. The hotline services and call center service regarding the provision of information in every aspect of COVID-19 management; pamphlets distribution, awareness campaigns from audio-visual media, social media, or even through ring back tone from mobile are being practiced [14]. Nepal government, MOHP has also prepared an algorithm to suspect COVID-19 infection based on the WHO surveillance case definition, a handbook on clinical management guideline for healthcare workers and the collection of frequently asked questions and answers related to the laboratory testing of COVID-19 that help in the management of the disease for all steps of preparedness, mitigation, response and recovery phases [14].

The Government's initiative for prohibitive measures continued with the suspension of all incoming international flights as well as long-distance domestic travel, closing the borders with India and China, establishing health-desks at the international airport as well as for border checkpoints, lockdown process, closing all academic activities, establishing quarantine centers across the country, laboratory facility and processing to expand such facility to the provincial level too, coordinating within the national and international level for cooperation [14] are praiseworthy steps. Preparation of PPE, masks, and hand sanitizers are being started at a local and national level [18]. The cancellation of the Visit Nepal Year 2020, and lockdown process may severely impact on the economy of the country disturbing tourism, manufacturing, construction, and trade, but it is mandatory for the preparedness approach.

Meanwhile, Nepal's Army has also deployed army healthcare staff for the management of all phases of probable COVID-19 disaster, focusing on preventive approaches, preparing quarantines in every province and establishing a COVID-19 coordination center, isolation wards as well.

#### POINTS TO PONDER

As it is a viral infection, and despite all out efforts in the research sectors all over the world, no medicine or vaccine till date has been developed. The whole world has thus resolved to take preventive measures rather than cure. Primarily, the most emphasized practice is the social distancing in addition to hand washing, using gloves, goggles, and masks. Therefore, the countries with low-income economy like Nepal must give priority to scientific preventive measures in pre-disaster phase and be prepared for proper scientific management of the disease along with counseling during and post-disaster phase. Even the developed countries with the services of high profile expertise are failing in its proper control in time, Nepal will surely be in a problem once the massive outbreak occurs. Despite the preventive approaches implicated in Nepal, the compliance of people like support from the local level to the

national level is mandatory for the healthy nation free of COVID-19 to remain confined to the green zone.

#### REFERENCE

- [1] Naming the coronavirus disease (COVID-19) and the virus that causes it [Internet]. WHO. 2020. Available from: [https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-\(covid-2019\)-and-the-virus-that-causes-it](https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-(covid-2019)-and-the-virus-that-causes-it). Accessed 25 Mar 2020.
- [2] Prevention C for DC and. Coronavirus Disease-2019 [Internet]. 2020. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>. Accessed 25 Mar 2020.
- [3] WHO. Strategic Preparedness and Response Plan [Internet]. 2020. Available from: <https://www.who.int/docs/default-source/coronaviruse/srp-04022020.pdf>. Accessed 25 Mar 2020.
- [4] A comprehensive timeline of the new coronavirus pandemic, from China's first COVID-19 case to the present. Business Insider [Internet]. 2020 Mar; Available from: <https://www.businessinsider.com/coronavirus-pandemic-timeline-history-major-events-2020-3>. Accessed 25 Mar 2020.
- [5] World Health Organization Declares COVID-19 a "Pandemic." Here's What That Means. TIME [Internet]. 2020; Available from: <https://time.com/5791661/who-coronavirus-pandemic-declaration/>. Accessed 25 Mar 2020.
- [6] WHO. Coronavirus Disease (COVID-19) Outbreak Situation [Internet]. 2020. Available from: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>. Accessed 25 Mar 2020
- [7] Worldometer. COVID-19 Mortality Rate [Internet]. 2020. Available from: <https://www.worldometers.info/coronavirus/coronavirus-death-rate/>. Accessed 25 Mar 2020.
- [8] SitRep#1; Health Sector Response to Novel Coronavirus (2019-nCoV) [Internet]. Government of Nepal, Ministry of Health and Population. 2020 [cited 2020 Mar 25]. Available from: [https://drive.google.com/drive/folders/1SQz5zoNNwYGi\\_wBeHxNU6sYs261fg1Tx](https://drive.google.com/drive/folders/1SQz5zoNNwYGi_wBeHxNU6sYs261fg1Tx).
- [9] Ministry of Health and Population-Nepal HEOC. Situation Report on COVID-19. 2020. Accessed 25 Mar 2020.
- [10] Worldometer. Coronavirus [Internet]. 2020. Available from: <https://www.worldometers.info/coronavirus/>. Accessed 25 Mar 2020.
- [11] Hospitals urge the ministry to arrange for face masks, gloves, and other protective gear. The Kathmandu Post [Internet]. 2020 Mar 4; Available from <https://kathmandupost.com/health/2020/03/04/hospital-s-urge-ministry-to-arrange-for-face-masks-gloves-and-other-protective-gear>. Accessed 25 Mar 2020.
- [12] Hand sanitisers in short supply due to buying rush sparked by outbreak fears. The Kathmandu Post [Internet]. 2020 Mar 4; Available from: <https://kathmandupost.com/money/2020/03/04/hand->

- sanitisers-in-short-supply-due-to-buying-rush-sparked-by-outbreak-fears. Accessed 25 Mar 2020.
- [13] Nepali economy starts to feel the pinch as coronavirus spreads. The Kathmandu Post [Internet]. 2020 Mar 4; Available from: <https://kathmandupost.com/national/2020/03/04/nepali-economy-starts-to-feel-the-pinch-as-coronavirus-spreads>. Accessed 25 Mar 2020.
- [14] SitRep#42; Health Sector Response to Novel Coronavirus (2019-nCoV) [Internet]. Government of Nepal, Ministry of Health and Population. 2020 [cited 2020 Mar 25]. Available from: [https://drive.google.com/drive/folders/1T2fy5ejtqQO4\\_sGXspZzfGl6R3boOZU](https://drive.google.com/drive/folders/1T2fy5ejtqQO4_sGXspZzfGl6R3boOZU).
- [15] Stock of kits to transport coronavirus samples limited. The Himalayan Times [Internet]. 2020; Available from: <https://thehimalayantimes.com/nepal/stock-of-kits-to-transport-coronavirus-samples-limited/>. Accessed 25 Mar 2020.
- [16] Central laboratory is equipped to test 500 Covid-19 cases a week, but that is far too low, say public health experts. The Kathmandu Post [Internet]. 2020; Available from: <https://kathmandupost.com/health/2020/03/12/central-laboratory-is-equipped-to-test-500-COVID-19-cases-a-week-but-that-is-far-too-low-say-public-health-experts>. Accessed 25 Mar 2020.
- [17] Govt to set up 235 ICU beds amid coronavirus fears. My Republica. 2020;. Accessed 25 Mar 2020.
- [18] Mahabir Pun seeking tailors for PPE. Khabarhub [Internet]. 2020; Available from: <https://english.khabarhub.com/2020/24/84357/>. Accessed 25 Mar 2020.