



Assessment of Health-related Country Preparedness and Readiness of Nepal for Responding to COVID-19 Pandemic

Preparedness and Readiness of Government of Nepal Designated Hospital-running-COVID Clinics

Fact sheet

A nation-wide study was conducted to assess the preparedness and readiness of the Government of Nepal (GoN) designated Hospital-running-COVID Clinics to respond to COVID-19 pandemic. A cross-sectional study was conducted among 95 COVID Clinics via face to face and telephonic interviews with focal persons. Among them, telephonic interviews were carried out in few unreachable COVID Clinics due to national lockdown. A total of 95 COVID Clinics were included in the study, among which two of the hospitals were found not to be running COVID Clinics. Hence, a total of 93 hospitals served as COVID Clinics. The data was collected during the time period of one month (26 April 2020 to 27 May 2020). All the designated COVID Clinics were included in the study and the response rate was 100%.

This fact sheet summarizes the main indicators of designated COVID Clinics related to COVID-19 preparedness and readiness. It will support the GoN/ Ministry of Health and Population (MoHP) to assess the current status of the Clinics, find the gaps and align the practices and resources for better preparedness and readiness to respond against COVID-19.

This study gathered data on general information of the Hospitals-running-COVID Clinics including 11 domains as described below.

Key Points

1. Health care facility preparedness and planning

- Majority of the COVID Clinics (99%) coordinated with the government and had COVID-19 task force committee (80%), management core team (96.7%), and COVID-19 Preparedness response plan (93.3%) respectively, while only 60.3% had an Infection Prevention Committee (IPC).
- 95.8% of the COVID Clinics had provision of hand washing, (soap water/ alcohol-based hand rub).
- The provision of Infra-red thermometer was available at 92.6% of the hospital entrance.

2. Infrastructure

For COVID Clinic

- 80 (86%) and 83 (89.2%) COVID Clinics had provision of waiting area/holding area and examination area respectively while only half of the Clinics 46 (49.5%) had provision of triage system.
- Only 52 (55.9%) COVID Clinics provided 24 hours service.

For Whole-Hospital

- Designated Emergency for non COVID patients were available in all the hospitals.
- There were a total of 13,724 beds in 93 hospitals.
- 35 hospitals (37.6%) had Intensive Care Unit (ICU) facilities with a total of 809 ICU beds and 314 functional ICU ventilators. Among them, very few, 10 (28.6%) hospitals had provision for negative pressure ICU. 23 (23.3%) hospitals had High Dependency Unit (HDU)/ Step down with a total number of 279 functional beds.
- Very few (3.2%) hospitals had availability of Extra- Corporeal Membrane Oxygenator (ECMO)
- More than a third of the hospitals (29%) had provision for Neonatal ICU (NICU) while only 22.6% of the hospitals had Pediatric ICU (PICU) provision.
- 93.5% of the hospital had Operation Theatres (OT) with a total of 273 OT rooms and 170 OT ventilators.

3. Clinical services

- About 7 in 10 COVID Clinics (71%) had provision of investigations (RDT and/or RT-PCR) in the same hospital.
- 61 (65.6%) Clinics had provision of providing RDT services whereas only 3.2% had RT-PCR facilities.
- Trained human resources to conduct RT-PCR were available in only one-third (33.3%) of the hospitals.

Laboratory services

- None of the COVID Clinics had dedicated Laboratory services (Routine Blood tests, Special blood tests, Culture and Tropical Disease Profile Test). However, all of them shared such laboratory facilities with their respective hospital services.

- Almost 9 in 10 hospitals had the facilities for testing Malaria, Typhoid and Tuberculosis, while about three-fourth (75.3%) of the hospital had the capacity for testing Dengue.

Isolation Facilities

- About 96% of the COVID Clinics had provision of Isolation for COVID suspected cases till the result was available, among which 68.5% had ante-room attached for PPE donning and doffing.
- There were a total of 1, 185 beds in isolation for suspected cases.
- Provision of admitting confirmed COVID patients were only present in 15 (16.1%) COVID Clinics and among them 11 (73.3%) hospitals had ante-room attached for PPE donning and doffing.
- There were in total 243 beds for the confirmed cases.

Personal Protective Equipment (PPE)

- Among 93 (33.3%) COVID Clinics, only 42 (45.2%) of them had categorized PPE sets according to MoHP and NMC guidelines.
- There were altogether 10,761 N95 masks; 5,454 Goggles or Visor; 213,033 Gloves (loose/ Surgical gloves); 5,310 Water resistant or standard disposable gowns; 107,173 Caps, 1,97,360 surgical masks; 1,81,029 non-surgical gloves; 5,331 Gowns, and 2,643 Eye protection.

4. Support services

- Only 3.2 % of the COVID Clinics had dedicated diagnostics services, while almost 95% reported to share such services with respective hospitals if needed.
- None of the Clinics had CT scan service. Very few Clinics (3.2%) had designated Portable X-ray and Ultrasonography (USG) facilities.
- Only few Clinics (19.4%) had facilities of Central Pipeline Oxygen Supply (CPOS).
- Designated ambulance services were available in 40 (43%) hospitals with a total number of 53 ambulances.

5. Human resources

- Only 14 % of COVID Clinics had dedicated medical officers whereas, 86% of the Clinics had medical officers pooled from respective hospitals.
- On an average 3 Health Care Workers (doctors and/or nurses) worked in one shift in the COVID Clinics. They worked for 9 hours on an average in a single shift.

Capacity building (Training/ Orientation)

- Only 60.2% of the Clinics had orientated their health Care workers on running COVID Clinics.
- 67 (72%) of the Clinics had provided training on COVID-19 testing and sample handling whereas training on use of PPE was provided by 76.3% of Clinics.
- Only 25 (26.9%) Clinics had given orientation about handling the dead body to their health care workers.

6. Infection, Prevention and Control (IPC)

- The practice of segregation and transportation of waste as per Health care waste management guidelines 2014 was present in 80 (86%) of COVID Clinics.
- There was provision of disinfecting modality for PPE by Hypochlorite solution in 89.2%, UV sterilization in 10.8%, and autoclave in 83.9% Clinics respectively.

7. Medicine and Consumables

- Majority 90 (96.8%) of the COVID Clinic had essential Emergency medicines and 74 (79.6%) had recommended drugs for COVID-19.
- Hydroxychloroquine, Chloroquine and Azithromycin were available in almost all COVID Clinics. However, none of the Clinics had Ramdesivir, Tocilizumab (IL-6 blocker) or provision of convalescent plasma.

8. Discharge and Follow up

- Most of the COVID Clinics (68%) had the provision of ambulance service for the patients at the time of discharge.
- 78% of Clinics had the provision of contact and follow up of discharged patients and 73% of Clinics had counseling provision for home isolation.

9. Safety provisions for staffs

- 54.8% and 49.5% of the hospitals had the provision of COVID-19 testing and quarantine facilities for their staffs respectively.

10. Handling of dead body

- Very few (6.5%) COVID Clinics had availability of body bags.
- The total number of body bags were 214.

11. Presence of printed copies of Guidelines and Directives published or endorsed by Ministry of Health and Populations

- Except one, all the guidelines and directives published/endorsed by MoHP during the study period had been archived by more than 50% of the hospitals.

Indicators	Yes N (%)	No N (%)	Quantity
1.Health care facility preparedness and planning			
Provision of Coordination with government authority	94(98.9)	1(1.1)	
COVID-19 task force committee	79(83.2)	16(16.8)	
COVID-19 management core team	80 (84.2)	15 (15.8)	
Hospital COVID-19 Preparedness response plan	79(83.2)	16(16.8)	
Provision of hand washing, (soap water/ alcohol hand rub) at the hospital entrance	91(95.8)	4(4.2)	
Provision of Infra-red thermometer available at the hospital entrance	88(92.6)	7(7.4)	
2.Infrastructure			
For COVID Clinic			
Waiting area/ holding area	80 (86)	13 (14)	
Examination area	83 (89.2)	10 (10.8)	
Triage system	46 (49.5)	47 (50.5)	
24 hours COVID Clinic service	52 (55.9)	41 (44.1)	
For Whole-Hospital			
Designated Emergency for non COVID patients	93(100)	0	
Total no of hospital beds			13,724
Intensive Care unit	35 (37.6)	58 (62.4)	
Number of functional beds in ICU			809
Functional ICU Ventilator			314
Provision of negative pressure ICU (n=35)	10 (28.6)	25 (71.4)	
High Dependency Unit/Step down	23(24.7)	70 (75.3)	
Number of functional beds in HDU/ Step down			279
Extra- Corporeal Membrane Oxygenator (ECMO)	3 (3.2)	90 (96.8)	
Provision of NICU	27 (29)	66 (71)	
Provision of PICU	21 (22.6)	72 (77.4)	
Provision of Operation Theatre	87 (93.5)	6 (6.5)	
Number of OT rooms			273
Number of OT ventilators			170

3.Clinical Services				
Provision of investigation (RDT and/or RT-PCR) in same hospital	66(71)	27(29)		
RDT service	61(65.6)	32(34.4)		
RT-PCR service	3(3.2)	90(96.8)		
Trained human resource to conduct RT-PCR	31(33.3)	62(66.7)		75
Laboratory services				
Tropical Disease Profile Test				
Malaria	83 (89.2)	10 (10.8)		
Typhoid	84 (90.3)	9 (9.7)		
Tuberculosis	84 (90.3)	9 (9.7)		
Dengue	70 (75.3)	23 (24.7)		
Isolation Facilities				
Provision of Isolation for suspected cases till the result is available	89 (95.7)	4(4.3)		
Ante-room attached for PPE donning and doffing (suspected cases) (n=89)	61(68.5)	28(31.5)		
Total number of beds in isolation for suspected cases				1185
Provision of admitting confirmed COVID patient	15(16.1)	78(83.9)		
Ante-room attached for PPE donning and doffing (confirmed cases) (n=15)	11(73.3)	4 (26.7)		
Total number of beds for confirmed case				243
Personal Protective Equipment (PPE)				
Categorization of PPE sets according to MoHP and NMC guidelines	42 (45.2)	51(54.8)		
N95 mask				10,761
Goggles or Visor				5,454
Gloves (loose gloves / Surgical gloves)				2,13,033
Water resistant OR standard disposable gowns				5,310
Cap: Regular disposable				1,07,173
Surgical mask				1,97,360
Non-surgical gloves				1,81,029
Gowns				5,331
Eye protection				2,643
Indicators	Yes1*	Yes2*	No	Quantity
	N (%)	N (%)	N (%)	N
4.Support Services				
Availability of diagnostics services	3 (3.2)	88 (94.6)	2 (2.2)	
Portable X-ray	3 (3.2)	44 (47.3)	46 (49.5)	
Portable USG	3 (3.2)	56 (60.2)	34 (36.6)	
Facility of Central Pipeline Oxygen Supply (CPOS)	18 (19.4)	0 (0)	75 (18.6)	
Dedicated Ambulance services for COVID	40 (43)		53 (57)	
Number of Ambulances				53

5.Human resources			
General Practitioner/ Emergency Medicine	8 (8.6)	55 (59.1)	30 (32.3)
Medical Officer	13 (14)	80 (86)	0 (0)
Yes1* Dedicated services to COVID Clinic only			
Yes2* Services either shared or pooled from respective hospitals			
Indicators	Yes N (%)	No N (%)	Quantity
Capacity building (Training/ Orientation)			
COVID Clinic	56 (60.2)	37 (39.8)	
COVID-19 testing and sample handling	67 (72)	26 (28)	
Handling of dead body	25 (26.9)	68 (73.1)	
6.Infection, prevention and Control (IPC)			
Practice of Segregation and transportation of Waste as per Health care waste management guidelines 2014	80 (86)	13 (14)	
Provision of disinfecting modality for PPE			
Hypochlorite solution	83 (89.2)	10 (10.8)	
UV sterilization	10 (10.8)	83 (89.2)	
Autoclave	78 (83.9)	15 (16.1)	
7.Medicine and Consumables			
Availability of Essential & Emergency Medicines	90 (96.8)	3 (3.2)	
Availability of Recommended Drugs for COVID-19	74 (79.6)	19 (20.4)	
8.Discharge and Follow up			
Provision of Ambulance service for discharge	68 (73.1)	25 (26.9)	
Provision for Contact and Follow up	78 (83.9)	15 (16.1)	
Provision for home isolation	73 (78.5)	20 (21.5)	
9.Safety provisions for staffs			
COVID-19 testing provision	51 (54.8)	42 (45.2)	
Quarantine provision	46 (49.5)	47 (50.5)	
10.Handling of dead body			
Availability of body bags	6 (6.5)	87 (93.5)	214

Data presented in this fact sheet relate only to selected indicators

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