



Guidelines for Quarantine facilities COVID-19

The purpose of this document is to provide interim guidance for setting up of quarantine facilities

Guidelines for Quarantine facilities

Contents	Page No.
Introduction	3
Evaluation of Potential Sites	4
Risk assessment of the quarantine facility	5
Securing Entry and Exit points	6
Human resource Deployment, training, IEC, Clinical Examination and referral	7
Coordination, Recording, Monitoring and Supervision, Prevention Control (IPC) measures, Catering, Laundry and other related activities, Biomedical waste (BMW) management	8
Logistic management, IEC, sampling, Discharge , Terminal Disinfection	10-12
Daily Reporting format-Annex1	13
SOPs for medical personnel-Annex 2	14
SOPs for nursing staff-Annex 3	15
SOPs for movement of staff-Annex 4	16
SOPs for security staff-Annex 5	17
Supplies for the quarantine facility-Annex 6	18
HR for quarantine facility- Annex7	19
SoPs for screening of personnel entering quarantine facility- Annex 8	20
SoPs for Disinfection-Annex 9	21
Guidelines for facility incharge and quarantine people at the time of discharge-Annex 10	28
Checklist for Establishing a Quarantine facility	31

1.0. Introduction

Quarantine is the separation and restriction of movement or activities of persons who are not ill but who are believed to have been exposed to infection, for the purpose of preventing transmission of disease. Persons are usually quarantined in their homes, but they may also be quarantined in community-based facilities.

Quarantine can be applied to

- An individual or to a group of persons who are exposed at a large public gathering or to persons believed exposed on a conveyance during international travel.
- A wider population- or geographic-level basis.

Examples of this application include the closing of local or community borders or erection of a barrier around a geographic area (cordon sanitaire) with strict enforcement to prohibit movement into and out of the area.

The purpose of this document is to provide guidelines for setting up of quarantine facilities during the current COVID-19 outbreak.

The recommended duration of quarantine for Covid-19 based on available information is upto 14 days from the time of exposure.

The purpose of quarantine during the current outbreak is to reduce transmission by

- Separating contacts of COVID-19 patients from community
- Monitoring contacts for development of sign and symptoms of COVID-19, and
- Segregation of COVID-19 suspects, as early as possible from among other quarantined persons

The scope of this document is to cover the procedures required for

- Physical infrastructure/Functional Services requirement at quarantine facilities
- Procedure for medical monitoring of contacts, reporting formats
- Protocol for referrals of suspects/ Symptomatics and isolation of symptomatics if required temporarily
- Infection control practices by medical personnel, supporting staffs and catering staffs etc.

2.0. Evaluation of potential sites for facility-based quarantine is important for preparedness planning (Checklist at Annexure-11).

Requirements for Quarantine facility in a community-based facility is as under

1. Location:

- preferably placed in the outskirts of the urban/ city area (can be a hostel/unused health facilities/buildings, etc.)
- away from the people's reach, crowded and populated area
- well protected and secured (preferably by security personnel/ army)
- preferably should have better approachability to a tertiary hospital facility having critical care and isolation facility

2. Access considerations

- Parking space including Ambulances etc.
- Ease of access for delivery of food/medical/other supplies
- Differently-abled Friendly facilities (preferably)

3. Ventilation capacity: Well ventilated preferably natural

4. Basic infrastructure/functional requirements:

- Rooms/Dormitory separated from one another may be preferable with in-house capacity of 5-10 beds/room
- Each bed to be separated 1-2 meters (minimum 1 metre) apart from all sides.
- Lighting, well-ventilation, heating, electricity, ceiling fan
- Potable water to be available
- Functional telephone system for providing communications.
- Support services- fooding, snacks, recreation areas including television
- Laundry services
- Sanitation services/Cleaning and House keeping
- Properly covered bins as per BMW may be placed

5. Space requirements for the facility:

- Administrative offices- Main control room/clerical room
- Logistics areas/Pharmaceutical rooms

- Rest rooms- doctors/nurses/supporting staffs
- Clinical examination room/ nursing station / Sampling area
- Laundry facilities (on- or off-site)
- Mess/Meal preparation (on- or off-site)
- Holding area for contaminated waste
- Wash room/Bathroom/Toilet

6. Social support resources/ Recreational areas

- Television and radio / Reading materials/ indoor plays

7. **Monitoring the health of contacts:** During that period, contacts should be monitored at least daily for fever and respiratory symptoms.

2.2. Standard operating Procedures: To ensure smooth operation in the quarantine facility, the standard Operative procedures (SOPs) needs to be framed as under

- Daily monitoring surveillance using the daily reporting format (annex 1)
- Fever triage/ Isolation
- Case and contact monitoring and response
- Transfers of suspect/symptomatic to designated hospital (through ambulances)
- Public information
- Provider information (SOPs)
 - medical personnel (annex 2),
 - nursing staff (annex 3),
 - movement of health personnel and support staff (annex 4) and
 - security staff (annex 5)

Functional flow should be maintained to reduce/minimise the interactions between quarantine people and healthcare professionals/supporting staffs so that transmission of disease is prevented and controlled

3.0. Risk assessment of the quarantine facility

The risk level refers to how likely it is that someone in the Quarantine camp will become infected with corona virus as a result of movements and activities performed in the Quarantine camp.

Risk assessment includes identification of the biohazard risk precaution levels, along with its associated activities. The risk level refers to how

likely it is that someone in the Quarantine camp will become infected with corona virus as a result of procedures performed in the Quarantine camp. Areas were segregated and labeled as:

- **Low risk areas:** Areas having less direct contact with evacuee suspects such as control room center in the quarantine center, nursing station and areas of kitchen where food is cooked.
- **Moderate risk areas:** Moderate risk areas are where infectious aerosols are generated from areas where the suspects were inhabiting in their bed linen, pillows and nearby clothes; low concentration of infectious particles. Contaminated surface near the quarantine zones.
- **High risk areas (containment Quarantine camp):** Areas where direct dealing with the suspects are as under
Medical examination room, sample collection areas(high concentration of infectious particles while coughing, sneezing, gag reflex during nasopharangeal & oropharangeal sample collection). Toilet and bathroom areas, dining areas, areas of bio-waste collections, segregation and disposal.

Based on risk assessment, areas should be earmarked and infection prevention control measures to be applied as per MOHFW guidelines.

4.0 Securing Entry and Exit points

- In order to prevent and control infection in the facility, strategic points in the facility needs to be identified including
- The Control room where a person entering inside quarantined building to get proper awareness and training on infection control measures,
- A well informed and trained security to check (main entrance gate of the area) and a guard (24*7) with registers for ins and outs and a designated nursing officer for checking proper PPE wear (main entrance gate in the building)
- The international biohazard warning symbol and sign to be displayed on the doors of the rooms where suspects are kept, BMW management areas, samples of higher risk groups are handled

- Only authorized & trained persons or those designated in work areas to permitted to enter the quarantine areas;
- Doors to keep closed at all times preferably under observation of a guard.
- There should be double door entry was managed with only one door to be open at a single time.

5.0 . Human resource Deployment: In the quarantine facility, Chief Medical officer needs to be appointed as In-charge /nodal officer for overall coordination and supervision of the quarantine center. Services of General duty medical doctors, Medicine specialists, Pediatrics, Microbiologist (for diagnostic support and IPC), Psychiatrists & Psychologists are required for routine examination and relevant clinical care of the quarantined people. Para-medics including Staff Nurse and Lab. Technician, Pharmacist need to be posted. Public health specialist are required for monitoring public health aspects of the facility while services of clinical microbiologist are required for sample collection, packaging and infection prevention & control practices. House keeping staff also need to be deployed.

6.0 Training – Training is the most important and critical part to ensure that all activities takes place as per established protocol and SOPs, training of health care professionals and other relevant staffs was undertaken initially. Training of medical officers on SOPs needs to be followed at Quarantine centers for daily examination, movements in the facility, infection prevention control measures and use of PPE kit etc.

Training of clinicians, laboratory technicians and medics needs to be undertaken on appropriate sample collection (nasopharyngeal and throat) and triple layer packaging with cold chain maintenance.

Paramedical staffs i.e., staff nurses; medics, pharmacist etc. needs to be trained on SOPs to be followed at Quarantine centers and use of PPE kit. Staff undertaking the work in Laundry, Mess/Canteen, security and other related staff i.e., drivers, general duty staff etc. needs to be trained on use of mask, gloves , cleaning and disinfection procedures and use of PPE kit, etc.

Refresher training or regular direction to all the above staffs needs to be provided as on need basis. During the quarantine period as and when new staff was posted, it needs to be ensured that he/she received proper training before undertaking the work. It is to emphasized that all activities / procedures must be done under strict monitoring/observations of trained specialists.

7.0 . Daily Clinical Examination and referral - All quarantined people needs to be examined twice (morning & evening) daily clinically and those requiring

referrals for related symptoms of Corona virus (fever, cough, sore throat, breathlessness etc.) or any other reason needs to be referred to designated hospital in ambulance directly with due precautions as per referral SOP. Ambulances need to be placed in the facility in standby mode for transport including advanced lifesaving ambulance.

Daily census of the people needs to be undertaken twice a day (ex. Morning 8 am and evening 6 pm).

8.0 Coordination– Chief medical officer needs to supervise and coordinate with various organizations working with the facility. To ensure all activities take place according to standard protocol, separate teams were constituted for various purposes- Supervisory team, admin team, logistic team, referral team, medicine / equipment team, hygiene sanitation team.

Daily review meetings needs to be conducted under chairmanship of Chief medical officer to discuss day to day affairs and sort out any issue requiring attention.

24*7 control room needs to be established at the facility with monitor for CCTV cameras and speakers at each floor so that quarantined people can be communicated on routine basis and necessary instructions can be provided.

9.0 Recording and reporting mechanisms- To ensure standardized reporting, daily reporting formats of suspected cases with symptoms related to corona virus, no. of cases requiring referral, sample collection status needs to be designed (as per annexure 1). It needs to be sent daily to relevant higher authorities.

10.0 Monitoring and Supervision – Daily monitoring visit needs to be conducted inside quarantine facility and outside the facility in the surrounding campus by public health and incharge officers and gaps to be noted. Necessary corrective actions and preventive actions to be taken by the nodal officer. Visits also given by senior officers from for regular review.

11.0 Establishment of Infection Prevention Control (IPC) measures – As per risk assessment was undertaken with respect to probability of infection from possibly infected quarantine people to health care, other staffs and surrounding areas. Special map of the facility needs to be prepared to outline the details of movement of health care and other personnel around the quarantine area and in the building. It need to be ensured that movement of health care staffs and other personnel to undertake as per the designed map to prevent and control infections.

Separate fence needs to be raised around the building to prevent entry of animals especially dogs, monkeys and even birds if possible.

Well informed and trained security personnel needs to be deployed all around the building on 24*7 rotation basis to monitor the facility and to avoid entry of undesired persons/animals and even birds for eating any food remains/droppings inside the area.

To ensure that all health care personnel use PPE as per guidelines, they need to be properly trained and assisted during wearing of PPE. Separate areas to be earmarked for PPE Donning and Doffing. Compliance for same to be ensured by nodal officer.

Separate well informed and trained nursing officers need to be stationed at the building to regulate the movement of the staffs entering the facility. He/ She should be assigned the duty that every person entering the facility enters in the register of all the details on time of name, designation entry/exit. Nursing officer to ensure that all the persons are labeled while entering the building so that they can be identified by security staff. At the entrance, two door entries may be ensured to avoid mixing of quarantine people with health care staff.

It is to be ensured that all the quarantine facility is decontaminated daily (refer to infection prevention control guidelines) with disinfectants (freshly prepared 1% hypochlorite, detergent solution) including surface mopping of all the floor, bathrooms, toilets facility, under side of beds, other related items placed in the rooms of quarantine people .

A separate cubicle for people developing mild symptoms for temporary observation (transit room) may be considered so that it will lead to an early isolation of any symptomatic person and to prevent transmission to other cluster of groups.

12.0 Lodging, Catering, Laundry and other related activities –Disposable and pre-packed food to be needs to be served to quarantined people. All the quarantined people to be kept on separate beds with distance of 1-2 meters with no bed facing opposite to each other. All Beds were having disposable bed sheet that should be changed on daily basis. Personal toiletries/ towel/ blanket/ pillow with covers/electric kettle, room heater and water dispenser may be provided to each person depending on availability.

A separate room needs to be assigned to perform laundry services for cleaning of all the clothes and other washing related activities. Before laundering, all the washable items needs to be placed in 1% hypochlorite up to 30 minutes and later washed in detergent solution.

13.0 Waste management¹- General solid waste (household waste) generated at quarantine camps is to be handed over to the waste collector identified by the Urban local bodies (ULBs) or as per prevailing local method of disposal of general solid waste.

Biomedical waste if generated at quarantine camps/centres should be collected separately in yellow coloured bags (suitable for biomedical waste collection) provided by ULBs. These bags may be placed in separate and dedicated dustbins of appropriate size.

Persons operating quarantine camps should call the CBWTF (common biomedical waste treatment facility) operator to collect biomedical waste as and when it gets generated. Contact details of CBWTF will be available with local authorities.

In case a site is demarcated for storage of biomedical waste till it is lifted by the CBWTF, it should be regularly disinfected with freshly prepared 1% hypochlorite solution. Continuous training, monitoring & supervision of appropriate waste management must be done on a regular basis to ensure compliance.

For details, refer to the CPCB guidelines at

<https://ncdc.gov.in/showfile.php?lid=551>

14.0 Logistic management- All logistic to be used in quarantine facility i.e., PPE, medical equipment i.e. Thermal thermometer, Stethoscope, BP machine etc., office logistic, sample collection and packaging material, etc. to be purchased in advance.

Performa needs to be prepared for daily consumption of PPE, triple layer mask, gloves, etc. and monitored by logistic team on daily basis.

15.0 Information, Education & Communication (IEC) and Psycho-social support – As on arrival, there might be an obvious sense of psychological fear and panic among all the quarantine people and some of the involved stakeholders like health care professionals/staffs including doctors, security personnel etc.. An interpersonal communication needs to be made to all of them one after another in groups by Psychiatrist team initially and later on with individual counselling sessions. Quarantine people needs to be explained on Universal infection control measures, personal protective measures, written instructions on Do's and Don'ts in the quarantine zone to be provided to contain and avoid spread of the infection. Importance of frequent Hand washing specially after touching surfaces like door handles, stair railings, bed railings, etc. to be instructed for strict compliance. Everyday quarantine people to be counseled by clinicians regarding day to day queries. If needed, referral to be made to psychiatrist /psychologist team. If there is fear in the surrounding community it needs to be addressed.

16.0 Sample collection and packaging – For baseline testing, Samples (Nasopharyngeal swab and throat swabs) for COVID-19 need to be collected from all quarantine people & sent with triple layer packaging maintained in cold chain (2-8°C) to designated laboratory .

Safe collection & handling of specimens in the Quarantine camp needs to be performed in identified locations as per the SOP. Specimen containers generally used are viral transport medium (VTM vials containing 3 ml medium) with falcon tubes (50 ml) as secondary layer of Triple layer packaging system. Containers need to be correctly labeled to facilitate proper identification. Specimen request or specification forms to be placed in separate waterproof zip pouch envelopes with locking facility and pasted on the outside walls of the sample transport containers (Performa annexure). Just before the end of the 14 days quarantine period, resampling of nasopharyngeal swabs needs to be done.

17.0 Discharge of quarantine people from Quarantine Facility - The quarantine people need to be discharged at the end of 14 days of incubation period provided samples are negative on resampling. Instructions should be provided to self-monitor their health at their home (home quarantine) for next 14 days and immediately report to their District Surveillance officer (DSO), in case of development of symptoms suggestive of COVID-19. Written instructions were handed over to them individually. The District Surveillance Units (DSO) and State Surveillance Units (SSO) to be provided with contact details of the quarantine people to conduct active surveillance for next 14 days under intimation to the Central Surveillance Unit, IDSP (NCDC).

18.0 Terminal Disinfection and decontamination procedures: Quarantine facility terminal disinfection procedures to be performed as per guidelines. Cleaning/ decontamination to be performed using the proper personal protective equipment (PPE) and adopting three bucket system as prescribed in the SOP (at attached annexure).

Spraying of 1% sodium hypochlorite working solution (dilution 1:4 from an initial concentration of 4%) to be done on all the surfaces (protecting electrical points/appliances). This was followed by cleaning with a neutral detergent that is used for removing the traces formed by hypochlorite solution. While cleaning, windows need to be opened in order to protect the health of cleaning personnel.

All frequently touched areas, such as all accessible surfaces of walls and windows, the toilet bowl and bathroom surfaces need to be carefully cleaned. All textiles (e.g. pillow linens, curtains, etc.) should be first treated with 1% hypochlorite spray and then, packed and sent to get washed in laundry using a hot-water cycle (90°C) and adding laundry detergent. 1% hypochlorite solution

should also sprayed in the PPE doffing area and discard area twice a day on daily basis. Mattresses / pillows after spraying with 1% hypochlorite should be allowed to get dry (both sides) in bright sunlight for upto 3 hrs each.

DAILY REPORTING FORMAT (Daily Clinical Examination)

COVID-19

Name of the Centre:

Address:

Centre In Charge:

Contact No:

S.no	Date of reporting	Census in the Centre (8 AM)	Clinically examined	Suggestive Symptoms like fever, cough, breathing difficulty, other respiratory problems,	Other clinical cases and non 2019-nCoV	Cases referred to designated hospital	Cumulative cases referred to designated hospital	Cases discharged from designated hospital	Cases still admitted at designated hospital	Census in the Centre (8PM)	Remarks
------	-------------------	-----------------------------	---------------------	--	--	---------------------------------------	--	---	---	----------------------------	---------

etc

M	FM	FM	F	M	FM	FM	FM	FM	F

Annex 2

Standard Operative Procedures for medical personnel

There are shift duties of the doctors may be as under

Morning :	800AM to 200 PM
Afternoon :	200PM to 800 PM
Night :	800PM to 800 AM (next day)

General instructions for medical doctors from designated hospital (s) for performing their duty at Quarantine facility may be as under:

- a. The name of the duty officers and duty roster for to be displayed at the control room.
- b. Each team to follow the procedure mentioned below:
- c. The resident doctors on duty will report to the centre at the reporting time and mark attendance in the register.
- d. After that, they will go to clinical area to examine the quarantined people in the centre.
- e. The doctors on working duty will team up with medical officers from Quarantine facility to form a paired team (one from hospital and another from the Quarantine facility) to examine the cases.
- f. They will examine and assess the patients and report to the In-charge of the Quarantine facility.
- g. They will take care of the infection control/protective measures while examining the persons and follow guidelines placed at the door for safety/infection control measures.
- h. If any symptomatic case/ additional symptoms are observed/ reported, it should be discussed with the In-charge of the Quarantine facility for referral to the designated hospital, if required.
- i. They will complete examination of all patients and report before 12 noon on the same day and handover the report to the Office In-charge for onward transmission to the Ministry.
- j. They will not leave till the next relieving team arrived.
- k. They will hand over this information to the next relieving team.
- l. They will leave the Quarantine facility with due permission of In-charge of the Quarantine facility.
- m. If any doctor has not reported due to unavoidable circumstances, present available team will inform to the concerned authority of designated hospital for substitute.
- n. In case any patient needs to be transferred due to any eventuality to the referral centre, senior most doctor will accompany the ALS Ambulance to take care of the patient till he/she reaches and handed over to the centre.
- o. The medical team may take help of psychiatric/ counsellor team if required, for psychosocial support
- p. Team to work in harmony with the Quarantine facility medical team.
- θ. The senior most doctor on duty from the designated hospital will take decision of the clinical management.

Annex 3

Standard Operative Procedures for Nursing Officer (supervisor)

- Maintain log of medical professionals/staffs entering/exiting in the quarantine facility, where the quarantine people are housed.
- A designated nursing officer (infection prevention & control nurse) has to ensure that the incoming officers/ staff to the quarantine building that are wearing appropriate PPE, and they are aware of universal infection control precautions {hand washing (alcohol/ sanitizers or soap + water; mask, gloves, PPE).
- After this he/she will allow the person to enter.
- The PPE doffed off by the outgoing medical professionals needs to be disposed in the yellow bag and hand sanitization should be ensured after disposing the PPE. **(PPE- donning On / doffing Off enclosed).**
- Yellow bags containing the infected materials placed in the nearby gate should be disposed off daily as per the Biomedical Waste Management Rules.
- The dustbins should be covered at all times. This should be ensured by Nursing officer. If required, disinfection has to be done as advised.
- Black bags (municipal wastes) - to be disposed after proper packaging daily as per the Biomedical Waste Management Rules.
- Supervise IPC in the facility in coordination with Microbiologist/Clinician

Standard Operative Procedures for Movement of Health Professionals and Support Staff Inside the Quarantine facility

The movements of health professionals are to be monitored at three vital points considering the control of infection for the prevailing disease-

CONTROL ROOM:

- Health professionals and support staff need to be made aware and trained in correct procedure of wearing mask and gloves.
- They need to be trained to follow the infection control measures as instructed including
 - hand washing with soap and water and sanitizing with alcohol-based sanitizers,
 - cough etiquettes,
 - donning and doffing of PPE etc.
 - before entering the quarantine facility.

Main Gate Security post: To monitor entry of persons/visitors to the facility and ensure that the personnel should comply with instructions / including wear the mask correctly.

Nursing Station at Quarantine building (ground floor):

1. Registration of name with time and purpose for entering the building
2. PPE should be donned here.
3. Nursing officer will check and ensure strict and correct wearing of PPE before entering the main quarantine area
4. After coming out from the main quarantine area, PPE to be doffed properly and placed in the designated bin for infective material (Yellow bag)
5. The hands should be sanitized before exiting the quarantine area
6. Mobile phones are not allowed to be used inside the building
7. Name of doctors to be written on the PPE with permanent marker for identification.

Standard Operative Procedures for Security Personnel at Quarantine facility

1. For security purpose, ensure 24 hours manning of the post of the quarantine facility.
2. The person manning the area must be trained and instructed to wear mask and gloves during the duty period.
3. Instructions for infection control measures like hand washing etc. should be properly briefed.
4. Doctors/Nursing staff/supporting staffs/other entering the quarantine area should wear appropriate PPE before entering the quarantine centers.
5. Log of those entering/exiting the Quarantine facility should be maintained. Only those having specific purpose inside the Quarantine facility should be allowed to enter.
6. The log should be put up daily to the controlling authority.
7. Security guard should have a whistle to give signals to people to not come near the quarantine facility if they do not have any purpose to visit the Quarantine facility.
8. He should report immediately to the officer In-charge controlling the security of the quarantine facility, if anybody does not follow the instructions as directed.
9. The security personnel should not leave after completing his shift till his reliever reports for duty.
10. The officer In-charge controlling the security of the quarantine facility will supervise the duty roster and roles and responsibilities of all the personnel deployed at the quarantine area for smooth functioning.

Annexure-6

Requirements of Equipment for Quarantine Facility

Equipment	Daily Consumption for holding 300 persons
Gloves <ul style="list-style-type: none"> • reusable vinyl or rubber gloves for environmental cleaning • latex single-use gloves for clinical care 	200
Hair covers (optional)	1500
Particulate respirators (N95, FFP2, or equivalent)	150
Medical (surgical or procedure) masks	1500
Gowns and aprons (single-use long-sleeved fluid-resistant or reusable non-fluid-resistant gowns)	150
PPE Kit	130
Alcohol-based hand rub	50
Plain soap (liquid if possible, for washing hands in clean water)	500
Clean single-use towels (e.g. paper towels)	1500
Sharps containers	5
Appropriate detergent for environmental cleaning and disinfectant for disinfection of surfaces, instruments or equipment	20 litres
Large plastic bags	200
Appropriate clinical waste bags	100
Linen bags	500
Collection container for used equipment	200

Human Resource requirement for Quarantine Facility

The requisite human resources at a Quarantine Facility can be divided into two broad categories:

General Requirements of medical personnel for the facility as under

Medical personnel- (catering facility of 300 people)

- I. On- Duty Doctors in 6 hours shift of 2 doctors
- II. Nursing Staff in 6 hours shift of 4 nurses
- III. Lab. Technicians in 6 hours shift of 4 technicians

1. Health professionals: (Multi-disciplinary team)

- Medical doctors (Multi-Speciality team)- General duty doctors, Specialists like Medicine, Paediatrician, Psychiatrist / Psychologist, Public Health specialist, Microbiologist etc.
- Nursing officers
- Pharmacists
- Paramedics
- Lab. Technicians (preferably)

2. Supporting staffs like Safai Karamchari, Housekeeping, Laundry workers, Cooks, etc.

3. Security staffs

Annexure- 8

Checklist for screening entry of persons inside the quarantine building

- Only authorised personnel should enter the quarantine facility for carrying out pre-determined activity. While entering the quarantine facility, it should be ensured that personnel are wearing the requisite personal protective equipment
 - A pre-identified staff should be designated to screen the personnel entering in the quarantine facility using following check-list.
 - I. Is the person entering the quarantine building either doctors/nursing officers/ supporting staffs/ Govt. officials etc. posted or authorized to enter the quarantine building in the Centre?
 - II. Whether the person entering the quarantine building is having duty inside the building during that time?
 - III. Whether the person entering wear protective suit correctly?
 - IV. Whether the person entering wear N-95 Mask correctly?
 - V. Whether the person entering wear goggles correctly?
 - VI. Whether the person entering wear headgear correctly?
 - VII. Whether the person entering wear boots correctly?
 - VIII. Whether PPE has no gaps/physical damages which can be a risk in the disease transmission?
 - IX. If it is 'YES' in all Qs from 1to 9, then, the person is allowed to enter the quarantine building.
 - X. If any of the Qs is NO, then , to ask for appropriate donning of PPE initially and if not still then, to contact the concerned officer supervising the nursing officers and if required, NCDC Team on duty /In-charge of the center.
-

Annexure – 9

Guidelines for Disinfection of quarantine facility (for COVID-19)

(Refer to NCDC Website for latest updates)

Guidelines for disinfection of quarantine facility (for COVID-19)

Scope: This document aims to provide interim guidance about the environmental cleaning / decontamination in quarantine camp facilities (e.g. barracks, cubicles in rooms, offices, and toilets, etc.) where persons with potential exposure to COVID-19 have housed.

The causative agent involved in the current outbreaks of 2019-nCoV acute respiratory disease, the 2019-nCoV (genus: Betacoronavirus), belongs to the family of Coronaviridae, a large family of enveloped, positive-sense single-stranded RNA viruses. Coronaviruses are transmitted in most instances through large respiratory droplets and contact transmission, but other modes of transmission have also been proposed worldwide.

The time of survival and the conditions affecting the 2019-nCoV viability in the environment are currently unknown. According to studies assessing the environmental stability of other coronaviruses, the Severe Acute Respiratory Syndrome coronavirus (SARS-CoV) is estimated to survive several days in the environment and the Middle East Respiratory Syndrome-related coronavirus (MERS-CoV) more than 48 hours at an average room temperature (20°C) on different surfaces [1-3].

Environmental cleaning: Due to the potential survival of the virus in the environment for several days, the premises and areas potentially contaminated with the 2019-nCoV should be cleaned before their re-use, using products containing antimicrobial agents known to be effective against coronaviruses. Although there is lack of specific evidence for their effectiveness against 2019-nCoV virus, cleaning with water and household detergents and use of common disinfectant products should be sufficient for general precautionary cleaning. Tests carried out using SARS-CoV showed that sodium hypochlorite is effective.

These guidelines provide guidance for environmental cleaning in quarantine facilities housing people exposed/ potential exposure to COVID-19 and have been adapted based on the Hospital Infection Prevention and Control guidelines drafted by NCDC in collaboration with WHO and other stakeholders.

Area/Items	Item/Equipment	Process	Method/ Procedure
Clinical Area			
General clinical areas	Dust mops Mop (No broom will be used for sweeping)	Sweeping Cleaning Daily mopping	<ul style="list-style-type: none"> Sweep with the dust mop or damp mop to remove surface dust. Sweep under the furniture and remove dust from corners. Gathered dust must be removed using a hearth brush and shovel. The sweep tool should be cleaned or replaced after use.
Floors (clinical areas) – daily mopping	Detergent/ sanitizer–hot water, sodium hypochlorite(1%) Three buckets (one with plain water and one with detergent solution; one bucket for sodium hypochlorite(1%))		<ul style="list-style-type: none"> Prepare cleaning solution using detergent with warm water Use the three-bucket technique for mopping the floor, one bucket with plain water and one with the detergent solution. First mop the area with the warm water and detergent solution. After mopping clean the mop in plain water and squeeze it. Repeat this procedure for the remaining area. Mop area again using sodium hypochlorite 1% after drying the area. In between mopping if solution or water is dirty change it frequently. Mop the floor starting at the far corner of the room and work towards the door. Clean articles between cleaning. <p>Note: Mopping should be done twice a day</p>
Ceiling and Walls	Sweeping tool Duster Bowl/ small bucket of soap solution Plain water	Damp dusting	<ul style="list-style-type: none"> Damp dusting with a long handled tool for the walls and ceiling done with very little moisture, just enough to collect the dust. Damp dusting should be done in straight lines that overlap one another. Change the mop head/cover when soiled. <p>Note: Should be done once a week or after examining a suspect case</p>

	Care of mop	Hot water Detergent Sodium hypochlorite 1%	<ul style="list-style-type: none"> • Clean with hot water and detergent solution, disinfect it with sodium hypochlorite and keep for drying upsidedown.
Doors and door knobs	Damp cloth or Sponge squeeze mop Detergent	Thorough washing	<ul style="list-style-type: none"> • The doors are to be washed with a brush, using detergent and water once a week (on one defined day); gently apply cloth to soiled area, taking care not to remove paint, then wipe with warm water to remove excess cleaningagent. • Door knobs and other frequently touched surfaces should be cleaned daily.
Isolation room	Detergent/ Sanitizer– warm water, sodium hypochlorite (1%) Three buckets (one with plain water and one with detergent solution); separate bucket for sodium hypochlorite (1%)	Terminal cleaning	<ul style="list-style-type: none"> • Before cleaning an isolation room, liaise with infection control team for details of any special requirements. Staff will be instructed on specific cleaning procedures required with reference to • Safety uniform to be worn. • Chemicals or disinfectants to be used. • Also, if bed screen and shower screen are to be cleaned or changed, refer cleaning in isolation rooms.
All clinical areas/ Laboratories/ Wherever spill care is required	Sodium hypochlorite (1%) Rag piece Absorbent paper Unsterile gloves Spill care kit Mop Hot water	Blood and body fluid spill care	<ul style="list-style-type: none"> • Wear non-sterile gloves. • For large spills, cover with absorbent paper/ rag piece • if any broken glass and sharps, using a pair of forceps and gloves, carefully retrieve. Use a large amount of folded absorbent paper to collect small glass splinters. Place the broken items into the puncture proof sharps container. • Cover the spill with sodium hypochlorite(1%)for 10–20 minutes contact time. • Clean up spill and discard into infectious waste bin, and mop area with soap and hot water. • Clean the mop and mop area with 1% sodium hypochlorite. • Wash mop with detergent and hot water and allow it to dry.

Stethoscope	Alcohol-based rub/Spirit swab	Cleaning	<ul style="list-style-type: none"> • Should be cleaned with detergent and water. • Should be wiped with alcohol based rub/spirit swab before each patient contact.
BP cuffs and covers	Detergent Hot water	Washing	<ul style="list-style-type: none"> • Cuffsshouldbewipedwithalcohol-based disinfectant and regular laundering is recommended for the cover.
Thermometer	Detergent and water Alcohol rub Individual thermometer holder	Cleaning	<ul style="list-style-type: none"> • Should be stored dry in individual holder. • Clean with detergent and tepid water and wipe with alcohol rub in between patient use. • Store in individual holder inverted. • Preferably one thermometer for each patient.
Injection and dressing trolley	Detergent and water Duster Disinfectant (70% alcohol)	Cleaning	<ul style="list-style-type: none"> • To be cleaned daily with detergent and water. • After each use should be wiped with disinfectant.
Refrigerators	Detergent and water Absorbent paper or clean cloth	Cleaning (weekly)	<ul style="list-style-type: none"> • Empty the fridge and store thingsappropriately. • Defrost, decontaminate and clean with detergent. • Dry it properly and replace the things. • Weekly cleaning is recommended.

Area/Items	Item/Equipment	Process	Method/ procedure
------------	----------------	---------	-------------------

Lodging area

General cleaning	Detergent and warm water Mop Two buckets Clean utility gloves Handmops	Daily mopping floors Thorough washing	<ul style="list-style-type: none"> • Scrub floors with hot water and detergent with using minimal water. (Do not pour thewater.) • Clean with plainwater. • Allow to dry • Hypochlorite 1% mopping canbe done. <p>Note:Recommend general cleaning procedure should be done twice a day</p>
Lockers, tables, cupboard, wardrobes, benches, shelves and cots	Damp duster Warm water Detergent Dry duster	Damp dusting	<ul style="list-style-type: none"> • Damp dust with warm waterand detergent.
Railings	Detergent/ Sanitizer–hotwater, sodium hypochlorite	Daily dusting	<ul style="list-style-type: none"> • Damp dust with warm water and detergent followed by disinfection with hypochlorite

	1% Three small buckets/ or big bowls One with plain water One with detergent solution One for sodium hypochlorite 1%		
Mirrors and Glass	Warm water Detergent water/ cleaning solution Damp cloth Wiper	Cleaning	<ul style="list-style-type: none"> Using warm water and a small quantity of detergent and using a damp cloth, wipe over the mirror and surround, then using a dry lint-free cloth, buff the mirror and glass to a clean dryfinish.
Sluice room Stainless steel/ Any other sink	Powder cleanser Detergent powder Wiper Cloth	Cleaning	<ul style="list-style-type: none"> Sinks are to be cleaned with a powder cleanser. First wet the sink. Sprinkle on a little powder cleanser and work around the surface with a cloth, include the plughole. Do not use the powder cleanser on a dry sink. After removing spillage and any stains, flush away with running water. Wipe down the surface of the sink.
Pantry furniture	Duster	Dusting	<ul style="list-style-type: none"> Damp dust
Telephone	Warm water detergent solution Duster	General cleaning	<ul style="list-style-type: none"> Damp dust with warm water and detergent. Pay special attention to the ear and mouth piece and dry it properly.
Desks	Damp cloth Furniture polish	Dusting	<ul style="list-style-type: none"> Wipe top sides and draw handles with a damp cloth. Wooden desks should be cleaned with furniture polish and buffed to clear glows. Pen holder etc. to be cleaned or dusted.
Chairs (Vinyl)	Warm water and detergent	Cleaning	<ul style="list-style-type: none"> Wipe down with warm water and detergent. Remove any marks under arms and seat. Check for damage to stoppers, if stopper require replacement, report to maintenance department.
Furniture and fittings	Warm water and detergent Rag piece	Dusting	<ul style="list-style-type: none"> Using warm water and detergent, damp dust all furniture and fittings, including chairs, stools, beds, tables, cupboards, wardrobes, lockers, trolleys, benches, shelves and storage racks, waste/ bins, fire extinguishers, oxygen cylinders, televisions window sills and dry properly.
Bed tables, bedside lockers	Warm water and detergent Wiper Duster	Cleaning	<ul style="list-style-type: none"> Wipe down over bed table. Wipe top and underneath base and stand, using warm water and detergent. Dry on completion. Wipe down the bedside. Remove marks from fronts of draws and sides. Using warm water and detergent, wash the top to remove any sticky marks and dust.
Light switches	Damp cloth (never	Cleaning	<ul style="list-style-type: none"> Light switches to be cleaned of dust, spots and finger

and over-bed lights	wet) Detergent Warm water		marks. Clean with a damp cloth (never wet) and detergent. <ul style="list-style-type: none"> Over-bed lighting to be damp dusted. Clean with warm water and detergent.
Curtains	Soft clothes Water Mild soap solution	Cleaning	<ul style="list-style-type: none"> Clean with water and soap for curtains
White clothes	Sodium hypochlorite 1% Tap water	Washing	<ul style="list-style-type: none"> Should be washed under running water and soaked in 1% sodium hypochlorite for 20minutes. Note: PPE should be worn while washing soiled linen.
Mattress and pillow covers (cloth)	Tap water	Washing	<ul style="list-style-type: none"> Mattress and pillows should be covered with a reusable mattress cover. It should be changed for each patient and when soiled sent to the laundry according to schedule.
Mattress/ Pillow with rexin cover	Sodium hypochlorite 1%	Terminal Damp dusting and cleaning	<ul style="list-style-type: none"> If with rexin cover, can be cleaned with 1% sodium hypochlorite before use for next patient
Normal/ without rexin	Sunlight	Drying in sunlight	<ul style="list-style-type: none"> If routine mattress, dry it in bright sunlight for 1-2 days before using for next patient
Water jars	Vim powder Soap and water	Cleaning	<ul style="list-style-type: none"> Recommended boiled water for drinking Water jars should be scrubbed/ cleaned with soap and water and boiled water before filling withwater.

Areas	Agents / Toilet cleaner	Procedure
Cleaning of toilets		
Toilet pot/ commode	Sodium hypochlorite 1%/ Soap powder / long handle angular brush	<ul style="list-style-type: none"> Inside of toilet pot/commode: Scrub with the recommended agents and the long handle angular brush. Outside: Clean with recommended agents; use a nylon scrubber.
Lid/commode	Nylon scrubber and soap powder	<ul style="list-style-type: none"> Wet and scrub with soap powder and the nylon scrubber inside and outside
Toilet floor	Soap powder and scrubbing brush/ nylon broom	<ul style="list-style-type: none"> Scrub floor with soap powder and the scrubbing brush Wash with water Use sodium hypochlorite1% dilution
Tap	Nylon scrubber and soap powder	<ul style="list-style-type: none"> Wet and scrub with soap powder and the nylon scrubber.
Outside sink	Soap powder and nylon scrubber	<ul style="list-style-type: none"> Scrub with the nylon scrubber.
Showers area / Taps and fittings	Warm water Detergent powder Nylon Scrubber	<ul style="list-style-type: none"> Thoroughly scrub the floors/tiles with warm water and detergent Wipe over taps and fittings with a damp cloth and detergent. Care should be taken to clean the underside of taps and fittings.

Soap dispensers	Detergent and water	<ul style="list-style-type: none">• Taps should be dried after cleaning• Daily dusting• Should be cleaned weekly with detergent and water and dried.
-----------------	---------------------	--

Note: Dry the floors with a separate drying mop.

Guidelines for Quarantine facility Incharge, Health professionals, Quarantine people and their family members to guide them with respect to the discharge from Quarantine facility and follow up action in the community.

A. For the Quarantine facility Incharge & Health Professionals at the Quarantine facility:

- The final sample collection for all the travellers shall be taken up on the 13th and 14th day while being in the facility.
- The samples shall be collected and sent to the designated laboratories.
- The reports for the same shall be received latest by 16th/17th day in the facility through ICMR.
- Based on the reports a decision can be taken to discharge the travellers.
- Discharge shall accordingly, if agreed to, will be done on the 18th day from the Quarantine facility. Quarantine facility Incharge shall accordingly intimate the travellers in advance for them to make arrangement for their onward journey.
- A detailed enumeration of the proposed place of stay by the travellers during the next 14 days will be obtained including contact numbers by the Quarantine facility Incharge.
- The Quarantine facility Incharges will plan dropping the travellers in either of the locations i.e. ISBT, Railway Station or Airport as per the preference of the travellers.

B. For the Travellers in the Quarantine facility:

1. While travelling back home:

- Provide details of your stay for next 14 days including the contact numbers.
- Obtain list of District and State Surveillance Officers for follow up and reporting in case of any issue.
- Use triple layer surgical mask (follow correct use and disposal of mask as briefed during the stay in quarantine centre)
- Follow frequent hand-wash with soap and water or use alcohol based hand sanitizer.
- Use respiratory etiquettes (use tissue paper/ hand-kerchief to cover your nose and mouth, turn head away from the person facing of you, while coughing/ sneezing).
- Monitor your temperature twice daily.

- Retain the aircraft boarding pass/ rail ticket/ details of Journey by taxi (including contact number of drivers etc)

2. After reaching home

- Avoid crowded places.
- Monitor your health for a period of next 14 days (after leaving the quarantine centre).
- Monitor body temperature twice daily.
- At all times:
 - Maintain personal hygiene
 - Wash hands with soap and water frequently or use alcohol based hand sanitizer.
 - Use respiratory etiquettes (use tissue paper/ hand-kerchief to cover your nose and mouth, turn head away from the person facing of you, while coughing/ sneezing).
- Report to nearest health facility if you develop fever, cough or difficulty in breathing besides reporting it to the State and District Surveillance Officer.
- Allow attendance by health workers / respond to call received from Health functionaries. Keep their contact numbers handy.
- Inform about your health at the end of 14 days period to the Healthcare worker and State and District Surveillance Officer.

3. In case you develop fever, cough or difficulty in breathing any time after leaving the quarantine Centre (within next 14 days):

- Call the nearest health facility or health worker visiting you/ talking to you besides informing the State and District Surveillance Officer.
- An identified care giver (among family members) will only attend to you. He / she will wear mask and wash hands, every time he/ she comes in contact with you.
- Use surgical triple layer mask immediately on realization of symptoms.
- Get admitted to the identified health facility as advised.
- The vehicle/ ambulance which was used for transportation also needs to be disinfected. (Contact the health facility for the disinfection procedure).
- Follow infection prevention and control practices at all times and places.
- If further assistance is required, call Ministry of Health, Government of India's Control Room no. +91-11-23978046.

C. Advice to other family members at home:

- Wash your hands with soap and water frequently.
- If the person (discharged from the quarantine centre) develops symptoms inform the health worker and also the State and District Surveillance Officer.
- In case advised to shift the patient to a health facility:
 - Share list of all contacts till date with the treating doctor/ health care worker and the State and District Surveillance
 - Family members to be in home quarantine till either medical examination rules out novel coronavirus infection or the result of sample is negative.
 - Proper disinfection of bedding/ clothing/ room/ all personal belongings should be followed with 1% Sodium hypochlorite solution.

CHECKLIST FOR ESTABLISHING A QUARANTINE CENTER

I. Basic Information:

- 1) Name of the Quarantine Centre_
- 2) Address: _

- 3) Officer In charge: _
- 4) Email address: _
- 5) Phone Number: _
- 6) GPS Coordinates: _

II. Location of quarantine centre

- 7) Located away from the residential area? Yes No
- 8) Distance to nearby residential area?
- 9) Away from an area where gathering expected (Eg: Temples, stadiums, Churches etc):
 Yes No

III. Accessibility to the quarantine centre :

- 10) How far is it from the nearby airport?
- 11) How far is from the nearest railway station?
- 12) How far is the nearest bus station?
- 13) Is the road to quarantine centre is free from heavy traffic?
- 14) Is the road to quarantine centre is wide enough to have two vehicles at a time?
 Yes No
- 15) How far is the nearest tertiary care centre?
- 16) How far is the nearest District Hospital?

IV. Facilities & basic amenities at quarantine facility:

- 17) How many floors are there in the quarantine building?
- 18) How many rooms available at the quarantine facility?
- 19) How many numbers of beds in each room at quarantine facility?
- 20) What is the distance between beds in the quarantine room?

- 21) Is there is 24*7 supply of electricity at the facility? Yes No
- 22) Is there 24*7 supply of water at the facility? Yes No
- 23) Is there air conditioning available? Yes No
- 24) If yes, it is by centralised AC or individual air conditioning in each room?
 i. If individual AC ? a: Split b: Window
- 25) Does window space covers at least 10% of total area? Yes No
- 26) How many windows in each room?
- 27) Is there exhaust fans in each room? Yes No
 i. If Yes, how much air exchange rate expressed in cubic feet per minute (CFM)?
- 28) Is there drainage facility available in each floor? ? Yes No
- 29) Is there any separate sewage line from Quarantine areas?
- 30) Are there separate exit & entry points? Yes No
- 31) Is there availability of 24*7 security services at the quarantine area?
- 32) Is there any separate door for entry of non-health professionals for housekeeping, catering?
 Yes No
- 33) Yes No
- 34) Is there any separate washroom facility for each room at the facility? Yes
 No
- 35) If not, how many wash rooms per person/area?
- 36) Are the floors washable & easily dried? Yes No
- 37) Is the floor mappable? Yes No
- 38) Is there any in-house mess facility available at quarantine area?
- 39) Is there any separate room/ resting facility for?
 i. Doctors
 ii. Nurses
 iii. Paramedics
 iv. Cleaning staffs

v. Linen management

- 40) What is the Frequency of changing linen in Quarantine rooms?
- 41) Whether disposable of Linen used? Yes No
 i. If No then, How they are disinfecting & cleaning linen?
 ii. How frequently linens changed?

- 42) Is there any curtains available in the quarantine rooms/wards? Yes
 No
 i. If yes frequency of changing them?
 ii. frequency of disinfecting & cleaning?
- 43) Is there any policy for disinfecting mattress at quarantine facility? Yes
 No
- 44) Is there any written policy for disinfecting beds at quarantine centres?
 Yes No
- 45) If yes, please verify policy and elaborate /

VI. Infection control practices

- 46) Is adequate PPE supply available at the quarantine facility? Yes
 No
- 47) Is there adequate supply of disinfectants at the centre? Yes
 No
- 48) Are the staffs in the facility trained in wearing PPE? Yes
 No
- 49) Is there a separate area for donning & doffing PPE? Yes
 No
- 50) Is there hand washing facility with soap with dispenser / hand sanitizer available at donning & doffing areas?
 Yes No
- 51) If yes, what type of hand rub dispensers are available? (select all applicable answers)
 i. Pocket bottle
 ii. Bottle affixed to trolley/tray
 iii. Bottle affixed to bed
 iv. Wall dispenser
 v. Dispenser located on bedside table/trolley
- 52) Whether all staff has access to hand rub dispensers? ? Yes
 No
- 53) Are hand rub dispensers replaced when empty?
 i. Always
 ii. Intermittently

- iii. Rarely
- iv. Never
- v. Not applicable

54) Are posters illustrating handwash technique displayed beside each sink?

Yes No

55) Is there availability of bleaching solution of different strength available?

% of hypochlorite solution	YES	NO
1%		
5%		
10%		

56) Is there any policy for rodent & pest control management?

Yes

No

57) If yes, is it being implemented & followed?

Yes

No

58) Are the staffs trained in infection control practices?

Yes

No

59) Is there a structured curriculum / training module for Infection Control

Practices? ?

Yes

No

60) What is the Frequency of cleaning of

- i. floors of quarantine rooms/wards
- ii. Bathrooms
- iii. Ambulatory areas
- iv. Resting rooms
- v. What is the Frequency of cleaning high touch surfaces like door knobs, bed rails etc?

61) Is there any separate sample collection area?

Yes

No

62) Is there is separate thermometer & BP apparatus available at the quarantine centre?

Yes

No

63) Are there colour coded bags available for BMW management?

64) Is the waste being segregated and disposed as per protocol?

Yes

No

65) Are the sharps being disposed as per protocol?

Yes

No

66) How the food waste is being disposed?

VII. Recreational facilities

- 67) Is there provision for mobile phone or internet at the facility? Yes
 No
- 68) Are the mobiles phone disinfected?
i. If Yes how
ii. How frequently
- 69) Is there any recreational room / area available? Yes No
- 70) Is there any provision for Television or Radio at the quarantine facility?
 Yes No
- 71) Is there a provision of printed reading materials at the facility? Yes
 No
i. If Yes how the materials are disposed off?

VIII. Human resources & logistics

- 72) Is there a dedicated Infection nurse for the quarantine facility to monitor IPC activities?
- 73) Is there is rotational shift for doctors/nurses/paramedics?
i. If Yes, how many shifts?
ii. Doctors in each shift
iii. Nurses in each shift
iv. Cleaning staffs in each shift
- 74) Is there any pulmonologists/physician available when it is needed? Yes
 No
- 75) Is there a phlebotomist/ lab technician available when it is needed? Yes
 No
- 76) Is there any availability of clinical psychologist in quarantine facility? Yes
 No

IX. SOP & policies

- 77) Is there any guidelines/ inhouse SOP for infection control practices? Yes
 No

- 78) Is there any protocol for limiting the visitors to quarantine area? Yes
 No
- 79) Is there any written policy for the recreational area? Yes No
- 80) Biomedical waste management guidelines 2016 & amendments 2019 available?
 Yes No
- 81) Does the quarantine health facility in charge aware of National IPC guidelines for
healthcare facilities 2020? Yes No
- 82) Is there any linen policy available? Yes No
- 83) Is there any SOP for working of doctors, nurses & paramedics at quarantine
facility? Yes No
- 84) Is there any protocol for disinfecting ambulance after transporting patient to
isolation centre?
- 85) Is there any policy for monitoring health of staffs at quarantine area?
- 86) Is there enough IEC displayed at the quarantine centre?

x. Transporting Patients to Isolation centre

- 87) Is there any protocol for transfer of patients to tertiary care/transfer of
symptomatic cases to isolation centre?
- 88) Is there separate ambulance available for transporting patients to isolation
centre? Yes No
- 89) Are the ambulance staff trained in wearing PPE & infection control practices?
- 90) How far is the Isolation facility from the quarantine centre