Updated Containment Plan for

Large Outbreaks

Novel Coronavirus Disease 2019

(COVID-19)

[Version 3 16th May 2020]

Ministry of Health and Family Welfare
Government of India

1. INTRODUCTION

1.1. Background

Coronaviruses are large group of viruses that cause illness in humans and animals. Rarely, animal coronaviruses can evolve and infect people and then spread between people such as has been seen with MERS and SARS. Although most human coronavirus infections are mild, the epidemics of the severe acute respiratory syndrome coronavirus (SARS-CoV) and Middle East respiratory syndrome coronavirus (MERS-CoV), have caused more than 10,000 cumulative cases in the past two decades, with mortality rates of 10% for SARS-CoV and 37% for MERS-CoV.

The outbreak of Novel coronavirus disease (COVID-19) was initially noticed in a seafood market in Wuhan city in Hubei Province of China in mid-December, 2019, has now spread to 214 countries/territories/areas worldwide.

1.2. Risk Assessment

WHO (under International Health Regulations) has declared this outbreak as a "Public Health Emergency of International Concern" (PHEIC) on 30thJanuary 2020. WHO subsequently declared COVID-19 a pandemic on 11th March, 2020.

Most people infected with COVID-19 virus have mild disease and recover. Approximately 80% of laboratory confirmed patients have had mild disease, 15% require hospitalization and 5% cases are critical requiring ventilator management.

The overall case fatality ratio (CFR) is 6.9% globally, which is considerably lower than that was reported during SARS (15%) and MERS-CoV outbreaks (37%). The CFR varies by location and intensity of transmission. The mortality is high among elderlies, particularly those with co-morbid conditions like coronary artery disease, diabetes, hypertension, chronic respiratory diseases etc.

1.3. Global Scenario

As on 14th May, 2020, COVID-19 confirmed cases are being reported from 214 countries/territories/areas. A total of 42,48,389 laboratory confirmed cases and 2,92,046 deaths have been reported from globally. Focus of outbreak that was initially China, has now shifted to European region and United States of America.

Maximum number of cases is currently being reported from USA, Russia, Spain, UK, Italy, Germany, Brazil, Turkey and France.

1.4. Indian Scenario

As on 14th May, 2020, a total of 51401 active cases, 27919 cured/ discharged and 2649 deaths have been reported so far.

1.5. Epidemiology

Coronaviruses belong to a large family of viruses, some causing illness in people and others that circulate among animals, including camels, cats, bats etc. Rarely, animal corona viruses may evolve and infect people and then spread between people as witnessed during the outbreak of Severe Acute Respiratory Syndrome (SARS, 2003) and Middle East Respiratory Syndrome (MERS, 2014).The etiologic agent responsible for current outbreak of SARS-CoV-2 is a novel coronavirus is closely related to SARS-Coronavirus.

In humans, the transmission of SARS-CoV-2 can occur via respiratory secretions (directly through droplets from coughing or sneezing, or indirectly through contaminated objects or surfaces as well as close contacts). Current estimates of the incubation period of COVID range from 2-14 days. Common symptoms include fever, fatigue, dry cough and breathing difficulty. Upper respiratory tract symptoms like sore throat, rhinorrhoea, and gastrointestinal symptoms like diarrhoea and nausea/ vomiting are also reported.
As per analysis of the biggest cohort reported by Chinese CDC, about 81% of the cases are mild, 14% require hospitalization and 5% require ventilator and critical care management. The deaths reported are mainly among elderly population particularly those with co-morbidities.

At the time of writing this document, many of the crucial epidemiological information particularly source of infection, mode of transmission, period of infectivity, etc. are still under investigation.

2. Strategic Approach

India would be following a scenario based approach for the following possible scenarios:

i. Travel related case reported in India
ii. Local transmission of COVID-19
iii. Large outbreaks amenable to containment
iv. Wide-spread community Transmission of COVID-19 disease
v. India becomes endemic for COVID-19

2.1. Strategic Approach for when “only travel related cases reported from India”

(i) Inter-ministerial coordination (Group of Ministers, Committee of Secretaries) and Centre-State Co-ordination been established.

(ii) Early Detection through Points of Entry (PoE)screening of passengers coming from affected countries through 30 designated airports, 12 major ports, 65 minor ports and 8 land crossings.

(iii) Surveillance and contact tracing through Integrated Disease Surveillance Programme (IDSP) for tracking travellers in the community who have travelled from affected countries and to detect clustering, if any, of acute respiratory illness.

(iv) Early diagnosis through a network laboratory of ICMR which are testing samples of suspect cases.

(v) Buffer stock of personal protective equipment maintained.

(vi) Risk communication for creating awareness among public to follow preventive public health measures.

2. 2. Local transmission of COVID-2019 disease

The strategy will remain the same as explained in para 2.1 as above. In addition, cluster containment strategy will be initiated with:

- Active surveillance in containment zone with contact tracing within and outside the containment zone.
- Expanding laboratory capacity for testing all suspect samples, close contacts, ILI and SARI
- Establishing surge capacities for isolating all suspect / confirmed cases for clinical management.
- Implementing social distancing measures.
- Intensive risk communication.

2.3 Large outbreaks amenable to containment

The strategy will remain the same as explained in para 2.2 as above but vary in extent depending upon spread and response to be mounted to contain it. Geographic quarantine and containment strategy will include:

- Defining large area of operation and applying strict perimeter control
- Active search of cases, early isolation, contact listing and tracking, quarantine and follow up of contacts
- Testing all suspect cases, symptomatic contacts, asymptomatic direct and high-risk contacts of a confirmed case and ILI/ SARI cases as per the guidelines issued from time to time.
- Clinical management based on risk profile
- Social distancing measures
- Administer HCQ in healthcare workers and contacts as per the defined protocol
- Create awareness on hand hygiene, respiratory etiquettes and sanitation

3. Scope of this Document

In alignment with strategic approach, this document provides action that needs to be taken for containing a large outbreak. The actions for mitigation phase will be dealt separately under a mitigation plan.

4. Objective

The objective of this plan is to break the chain of transmission thus reducing the morbidity and mortality due to COVID-19.

5. Containment for large outbreaks through geographic quarantine

5.1 Large outbreak

A large outbreak is defined as localized increase in the incidence of a COVID-19 cases occurring within a defined geographic area e.g., in a village, town, or city. This could also imply progression of a small cluster, earlier noticed for which cluster management action is under implementation, into multiple clusters. The cases may or may not be epidemiologically linked. For operational purpose, as a working definition a large outbreak is deemed to be present when there are 15 or more cases.

5.2 Geographic quarantine

Geographic quarantine (cordon sanitaire) strategy calls for near absolute interruption of movement of people to and from a relatively large defined geographic area where there is single large outbreak or multiple foci of local transmission of COVID-19. In simple terms, it is a barrier erected around the focus of infection.

Geographic quarantine shall be applicable to such areas reporting large outbreak and/or multiple clusters of COVID-19 spread over multiple blocks of one or more districts that are contiguous based on the distribution of cases and contacts.

5.3. Containment of individual clusters within the geographically defined perimeter

The strategy is to contain multiple clusters noted within the outbreak zone. Cluster Containment Strategy would be to contain the disease within a defined geographic area by early detection of cases, breaking the chain of transmission and thus preventing its spread to new areas. This would include geographic quarantine, social distancing measures, enhanced active surveillance, testing all suspected cases, isolation of cases, quarantine of contacts and risk communication to create awareness among public on preventive public health measures.

5.4. Evidence for implementing geographic quarantine

In 2009, during the H1N1 Influenza pandemic it was observed that well connected big cities with substantive population movement were reporting large number of cases, whereas rural areas and smaller towns with low population densities and relatively poor road/rail/airway connectivity were reporting only few cases.

The current geographic distribution of COVID-19 mimics the distribution of H1N1 Pandemic Influenza. This suggests that while the spread of COVID-19in our population could be high, it's unlikely that it will be uniformly affecting all parts of the country. This calls for differential approach to different regions of the country, while mounting a strong containment effort in hot spots.

Large scale measures to contain COVID-19over large territories have been tried in China. Mathematical modeling studies have suggested that containment might be possible especially when other public health interventions are combined with an effective social distancing strategy.

5.4. Factors affecting large outbreak cluster containment

A number of variables determine the success of the containment operations through geographic quarantine. These are:

(i) Number and size of the cluster/s.
(ii) Effectiveness of geographic quarantine.
(iii) How efficiently the virus is transmitting in Indian population, taking into account environmental factors especially temperature and humidity.
(iv) Public health response in terms of active case finding, testing of large number of cases, immediate isolation of suspect and confirmed cases and quarantine of contacts.
(v) Geographical characteristics of the area (e.g. accessibility, natural boundaries)
(vi) Population density and their movement (including migrant population).
(vii) Ability to ensure basic infrastructure and essential services.

6. Action plan for geographic quarantine for large outbreak containment

6.1. Legal framework

The State should review the existing legal instruments to implement the containment plan. Some of the Acts/ Rules for consideration could be

(i) Disaster Management Act (2005)
(ii) Epidemic Act (1897)

(iii) Cr.PC and
(iv) State Specific Public Health Acts.

The Home Ministry has delegated the powers under DM Act, 2005 [Section 10 sub-section 2 clauses (i) and (l)]to Secretary (Health and Family Welfare) to act in such a way to contain or control the outbreak. States may invoke the provisions under DM Act, 2005 or under the Epidemic Act,1897to delegate powers to identified authority to act in such a manner to control or contain the outbreak.

Indian Penal Code under sections 270provides power to act against those indulging in spread of disease. Section 144 of the Code of Criminal Procedure, when invoked, prohibits gathering of people.

6.1. Institutional mechanisms and Inter-sectoral Co-ordination

At the Union Government level

6.1.1 The Group of Ministers (GoM) under the Chairmanship of Union Health Minister will be the apex body to take policy decisions. The GoM will have Ministers of External Affairs, Civil Aviation, Shipping, Pharmaceuticals, Home Ministry and option for co-opting any other Ministry. The Union Health Minister will have an advisory Group that will advise him on way forward. The Public Health Working Group under Secretary (H) and Joint Monitoring Group under DGHS will provide technical inputs.

6.1.2. At the national level, the Cabinet Secretary/ National Crisis Management Committee (NCMC) / Committee of Secretaries (CoS) will review the situation across the country and continue to direct the concerned Ministries to implement its directions. The co-ordination with health and non-health sectors will be managed by NCMC/ CoS, on issues, flagged by Ministry of Health.

The scale of arrangement within the Ministry of health will be expanded with additional areas among the core capacities assigned to various officers. If need be, Empowered group will take decisions for the core areas of work (planning-co-ordination, surveillance, laboratory support, hospital preparedness, human resource, logistics and data analysis etc.).

At the State level

6.1.3. The Concerned State will activate State Crisis Management Committee or the State Disaster Management Authority, as the case may be to manage the clusters of COVID-19.

Institutional arrangement at the operational level

6.1.4. District Collector would be the nodal person for all preparedness and response activities within his jurisdiction. District Collector will hold regular meetings with health functionaries, DDMA, Revenue, PWD, Forest, Education and Panchayati Raj/ Local Self Governance Departments where the containment plan will be finalized and operationalized. These officials will issue directions to their ground level staff in all aspects of preparedness, control and containment in accordance with the Containment Plan and Guidelines.

District Collector would need to identify key issues (logistics, legal, technical and resources) and address them for implementing containment operations. He/she will keep ready all administrative orders for social distancing, restriction of rail/road/air transport, perimeter control and continuity of essential services.

In addition, a compendium of all the administrative orders required for enforcing the non-pharmaceutical interventions would be prepared well in advance and kept ready to be executed during response phase.

6.2. Trigger for Action

Epidemiological intelligence on increase in the incidence of a COVID-19 cases occurring within a defined geographic area will be trigger for action. This will be provided by IDSPs early warning and response (EWAR) system. Routine laboratory based surveillance of SARI cases is another trigger for action.

6.3. Deployment of Rapid Response Teams (RRT)

State will deploy its state RRT and district RRT teams to undertake mapping of cases and contacts so as to delineate the containment and buffer zones. Emergency Medical Relief (EMR) division, Ministry of Health and Family Welfare may deploy the Central Rapid Response Team (RRT) to support and advice the State.

6.4. Identify area under geographic quarantine (Containment zone)

6.4.1 Defining containment and buffer zones:

Boundary for geographic quarantine will be defined based on:

i. Mapping of cases and contacts
ii. Geographical dispersion of cases and contacts
iii. Area having well demarcated perimeter
iv. Enforceability of perimeter control

This is done by mapping the cases & contacts for defining the area of operation. If data for mapping is not readily available or could not be mapped immediately, then the below mentioned criteria will be followed:

- **Rural areas:**
    - Block/Sub district/district population with buffer zone of all neighboring block/sub district/district
- **Urban areas:**
    - Containment Zone: Entire population of towns and for large cities, zones/districts from where cases are reported
    - Buffer Zone: Neighboring urban/rural districts

The area should be appropriately defined by the district administration/local urban body with technical inputs at local level & it would be appropriate to err on the higher side.

The buffer zone is an area where new cases are more likely to appear. Thus, the health institutions, including private institutions, should be aware of the signs & symptoms and undertake SARI/ and ILI surveillance as per norms.

6.4.2 Perimeter

Once the Containment Zone is delineated the perimeter will be defined and there would be strict perimeter control with:

i. Establishment of clear entry and exit points,
ii. No movement to be allowed except for medical emergencies and essential goods and services,
iii. No unchecked influx of population to be allowed and
iv. People transiting to be recorded and followed through IDSP.

6.4.3 Activities in Containment and Buffer zones

Containment Zone	Buffer Zone
i. Active search for cases through physical house to house surveillance by Special Teams formed for the purpose ii. Testing of all cases as per sampling guidelines iii. Contact tracing iv. Identification of local community volunteers to help in surveillance, contact tracing and risk communication	i. Enhanced passive surveillance for ILI and SARI cases in the buffer zone through the existing Integrated Disease Surveillance Programme. ii. Create community awareness on preventive measures such as personal hygiene, hand hygiene and respiratory etiquettes. iii. Use of face cover, social distancing through enhanced IEC activities. iv. To ensure social distancing by:

v. Extensive inter-personal and community based communication vi. Strict enforcement of social distancing vii. Advocacy on hand hygiene, respiratory hygiene, environmental sanitation and wearing of masks / face-covers viii. Clinical management of all confirmed cases	a. Cancelling all mass gathering events, meetings in public or private places. b. Avoiding public places c. Closure of schools, colleges and work places

7. Surveillance

7.1. Active Surveillance

The residential areas will be divided into sectors for the ASHAs/Anganwadi workers/ANMs each covering 100 households (50 households in difficult areas). Additional workforce would be mobilized from neighboring districts (except buffer zone) to cover all the households in the containment zone. Additional workforce if required will be listed from the covidwarriors.gov.in. This website provides access to list of volunteers trained for surveillance (ASHAs, Anganwadi workers, NSS, NCC, IRCS, NYKV). This workforce will have supervisory officers (PHC/CHC/Ayush doctors) in the ratio of 1:5.

The field workers will be performing active house to house surveillance daily in the containment zone from 8:00 AM to 2:00 PM. They will line list the family members and those having symptoms. The field worker will provide a mask to the suspect case and to the care giver identified by the family. The patient will be isolated at home till such time he/she is examined by the supervisory officer. They will also follow up contacts identified by the RRTs within the sector allocated to them.

All ILI/SARI cases reported in the last 14 days by the IDSP in the containment zone will be tracked and reviewed to identify any missed case of COVID-19 in the community.

Any case falling within the case definition will be conveyed to the supervisory officer who in turn will visit the house of the concerned, confirm that diagnosis as per case definition and will make arrangements to shift the suspect case to the designated treatment facility. The supervisory officer will collect data from the health workers under him/ her, collate and provide the daily and cumulative data to the control room by 4.00 P.M. daily.

7.2. Passive Surveillance

All health facilities in the containment zone will be listed as a part of mapping exercise. All such facilities both in Government and private sector (including clinics) shall report clinically suspect cases of COVID-19 on real time basis (including 'Nil' reports) to the control room at the district level. The health facilities in the buffer

7.3. Contact Tracing

The contacts of the laboratory confirmed case/ suspect case of COVID-19 will be line-listed and tracked and kept under surveillance at home for 28 days (by the designated field worker). The Supervisory officer in whose jurisdiction, the laboratory confirmed case/ suspect case falls shall inform the Control Room about all the contacts and their residential addresses. The control room will in turn inform the supervisory officers of concerned sectors for surveillance of the contacts. If the residential address of the contact is beyond the allotted sector, the district IDSP will inform the concerned Supervisory officer/concerned District IDSP/State IDSP.

7.4. Surveillance in Buffer zone

The surveillance activities to be followed in the buffer zone are as follows:

i. Review of ILI/SARI cases reported in the last 14 days by the District Health Officials to identify any missed case of COVID-19 in the community.

ii. Enhanced passive surveillance for ILI and SARI cases in the buffer zone through the existing Integrated Disease Surveillance Programme.

iii. In case of any identified case of ILI/SARI, sample should be collected and sent to the designated laboratories for testing COVID-19.

All health facilities in the buffer zone will be listed as a part of mapping exercise. All such facilities both in Government and private sector (including clinics) shall report clinically suspect cases of COVID-19 on real time basis (including 'nil' reports) to the control room at the district level. Measures such as personal hygiene, hand hygiene, social distancing to be enhanced through IEC activities in the buffer zone.

7.5. Perimeter Control

The perimeter control will ensure that there is no unchecked outward movement of population from the containment zone except for maintaining essential services (including medical emergencies) and government business continuity. It will also limit unchecked influx of population into the containment zone. The authorities at these entry points will be required to inform the incoming travelers about precautions to be taken and will also provide such travelers with an information pamphlet and mask.

All vehicular movement, movement of public transport and personnel movement will be restricted. All roads including rural roads connecting the containment zone will be guarded by police.

The District administration will post signs and create awareness informing public about the perimeter control. Health workers posted at the exit point will perform screening (e.g. interview travelers, measure temperature, record the place and duration of intended visit and keep complete record of intended place of stay).

Details of all persons moving out of perimeter zone for essential/ emergency services will be recorded and they will be followed up through IDSP. All vehicles moving out of the perimeter control will be decontaminated with sodium hypochlorite (1%) solution.

8. LABORATORY SUPPORT

8.1 Designated laboratories

The identified VRDL network laboratory, nearest to the affected area, will be further strengthened to test samples. The other available govt. laboratories and private laboratories (BSL 2 following BSL 3 precautions) if required, shall also be engaged to test samples, after ensuring quality assurance by ICMR/VRDL network. If the number of samples exceeds its surge capacity, samples will be shipped to other nearby laboratories or to NCDC, Delhi or NIV, Pune or to other ICMR lab networks depending upon geographic proximity.

The list of laboratories identified for testing COVID is at:
https://www.icmr.gov.in/pdf/covid/labs/COVID_Testing_Labs_15052020.pdf

All test results should be available within 24 hours of sampling. ICMR along with the State Government will ensure that there are designated agencies for sample transportation to identified laboratories. The contact number of such courier agencies shall be a part of the micro-plan.

The guidelines for sample collection, packaging and transportation is available at:

https://www.mohfw.gov.in/pdf/5Sample%20collection_packaging%20%202019-nCoV.pdf

The designated laboratory will provide daily update (daily and cumulative) to District, State and Central Control Rooms on:

i. No. of samples received
ii. No. of samples tested
iii. No. of samples under testing
iv. No. of positive samples

8.2 Testing criteria

The ICMR strategy for testing is given below:

1. All symptomatic individuals who have undertaken international travel in the last 14 days
2. All symptomatic contacts of laboratory confirmed cases
3. All symptomatic health care workers
4. All patients with Severe Acute Respiratory Illness (fever AND cough and/or shortness of breath)
5. Asymptomatic direct and high-risk contacts of a confirmed case should be tested once between day 5 and day 14 of coming in his/her contact

Details are available at:

https://main.icmr.nic.in/sites/default/files/upload_documents/Strategey_for_COVID19_Test_v4_09042020.pdf

The testing at the field level shall be taken up as per the criteria proposed by ICMR from time to time.

8.3. Tests approved for COVID Diagnosis

RT-PCR is the standard test for laboratory diagnosis. In laboratories, wherever Cepheid Xpert Xpress SARS-CoV2 Cartridge Based Nucleic Acid Amplification Test (CBNAAT) has been made available, the advisory of ICMR at the following link will be followed:

https://main.icmr.nic.in/sites/default/files/upload_documents/Cepheid_Xpert_Xpress_SARS-CoV2_advisory_v2.pdf

Laboratories following TrueNat as a screening test for detecting SARS-CoV2 will follow additional guidelines available at:
https://main.icmr.nic.in/sites/default/files/upload_documents/Additional_guidance_on_TrueNat_based_COVID19_testing.pdf

For testing persons in quarantine camps of migrant workers or those international passengers returning home, RT-PCR test based on pooled sampling will be used. The guideline for pooling of samples is available at:

https://www.mohfw.gov.in/pdf/GuidelineforrtPCRbasedpooledsamplingFinal.pdf

ICMR specimen referral form is available at:
https://main.icmr.nic.in/sites/default/files/upload_documents/SRF_v9.pdf

Additional testing methodologies prescribed from time to time by government shall be adopted at the field level.

9. Hospital care

All suspect/confirmedCOVID-19 cases will be hospitalized and kept in isolation in dedicated COVID-19 hospitals/hospital blocks. Persons testing positive for COVID-19 will remain hospitalized till such time as two of their samples are tested negative as per discharge policy. About 15% of the patients are likely to require hospitalization, and an additional 5 % will requires critical care and ventilator management.

A three tier arrangement for managing suspect/ confirmed cases will be implemented to decrease burden on the COVID Block/ hospital.

(i) The mild and very mild cases will be kept in COVID Care Centers which essentially are temporary makeshift hospital facilities made by converting hotels/ hostel/ guest houses/ stadiums near a COVID-19 hospital. The existing quarantine facility

may also be converted. This will be identified near an existing COVID hospital/ COVID block.

(ii) Dedicated COVID Health Centers would be identified in existing hospitals. These centers will have isolation beds with oxygen support for managing moderate cases, which require monitoring of their clinical status (patients with radiological evidence of pneumonia).

(iii) Severe cases requiring critical care/intensive care will be managed in Dedicated COVID Hospitals. Some of the severe cases may progress to respiratory failure and /or progress to multi-organ failure and hence critical care facility/ dialysis facility/ and Salvage therapy [Extra Corporeal Membrane Oxygenator(ECMO)] facility for managing the respiratory/renal complications/ multi-organ failure shall be required. If such facilities are not available in the containment zone, nearest tertiary care facility in Government / private sector needs to be identified, that becomes a part of the plan.

The categorization of COVID health facilities and categorization of patients based on severity are available at:
https://www.mohfw.gov.in/pdf/FinalGuidanceonMangaementofCovidcasesversion2.pdf.

In every hospital fever clinic with triage, holding areas, sampling stations and individual doctor's chambers where patients with fever/cough/breathing difficulty will be attended will be established. Necessary infection prevention and control practices shall be ensured at all such facilities.

9.1 Surge capacity

Based on the risk assessment, if the situation so warrants (if data suggests an exponential rise in the number of cases), the surge capacity of the identified hospitals will be enhanced, private hospitals shall also be roped in and sites identified for temporary hospitals to be operationalized.
Related guidelines are available at:
https://www.mohfw.gov.in/pdf/AdvisoryforHospitalsandMedicalInstitutions.pdf

9.2 Pre-hospital care (ambulance facility)

Ambulances need to be in place for transportation of suspect/confirmed cases. Such ambulances shall be manned by personnel adequately trained in Infection Prevention and Control (IPC), use of PPE and protocol that needs to be followed for disinfection of ambulances (by 1% sodium hypochlorite solution using knap sack sprayers).

The standard operating procedure for transporting Covid patient is at:
https://www.mohfw.gov.in/pdf/StandardOperatingProcedureSOPfortransportingasuspectorconfirmedcaseofCOVID19.pdf

9.3 Infection Prevention Control Practices

Healthcare associated infections in fellow patients and attending healthcare personnel are well documented in the current COVID-19 outbreak as well. There shall be strict adherence to Infection prevention control practices in all health facilities. Detailed guidelines on infection prevention control are available at:

https://www.mohfw.gov.in/pdf//National%20Guidelines%20for%20IPC%20in%20HCF%20-%20final%281%29.pdf

IPC committees would be formed (if not already in place) with the mandate to ensure that all healthcare personnel are well aware of IPC practices and suitable arrangements for requisite PPE and other logistic (hand sanitizer, soap, water etc.) are in place. The designated COVID treatment facility will ensure that all healthcare staff is trained in IPC (washing of hands, respiratory etiquettes, donning/doffing & proper disposal of PPEs and bio-medical waste management).

Healthcare workers will be provided guidance on preventive measures and management of risk to accidental exposure or other-wise to COVID. Advisory for managing Health care workers exposed to COVID is available at:

https://www.mohfw.gov.in/pdf/AdvisoryformanagingHealthcareworkersworkinginCOVIDandNonCOVIDareasofthehospital.pdf

At all times health care workers in COVID treatment facilities and Non-covid treatment facility/ areas will use personal protection gears following the below mentioned guidelines:

https://www.mohfw.gov.in/pdf/GuidelinesonrationaluseofPersonalProtectiveEquipment.pdf

Additional guidelines for Non- Covid areas are available at:

https://www.mohfw.gov.in/pdf/UpdatedAdditionalguidelinesonrationaluseofPersonalProtectiveEquipmentsettingapproachforHealthfunctionariesworkinginnonCOVID19areas.pdf

Environmental cleaning should be done twice daily and will consist of damp dusting and floor mopping with sodium hypochlorite solution of frequently touched surfaces. Detailed guidelines are available at:

https://www.mohfw.gov.in/pdf//National%20Guidelines%20for%20IPC%20in%20HCF%20-%20final%281%29.pdf

The bio medical waste will be managed in accordance with Bio-medical waste management rules. Guidelines for handling, treatment and disposal of waste generated during treatment/diagnosis/ quarantine of COVID-19 Patients is at:

https://www.mohfw.gov.in/pdf/63948609501585568987wastesguidelines.pdf

10. CLINICAL MANAGEMENT

10.1. Clinical Management

The hospitalized cases may require symptomatic treatment for fever. Paracetamol is the drug of choice. Suspect cases with co-morbid conditions, if any, will require appropriate management of co-morbid conditions.

For patients with severe acute respiratory illness (SARI), having respiratory distress may require, pulse oximetry, oxygen therapy, non-invasive and invasive ventilator therapy.

The clinical management protocol to be followed is available at: https://www.mohfw.gov.in/pdf/RevisedNationalClinicalManagementGuidelineforCOVID1931032020.pdf

10.2. Discharge Policy

Discharge policy for suspected cases of COVID-19 tested negative will be based on the clinical assessment of the treating physician. For those tested positive for COVID-19, their discharge from hospital will be governed by the discharge policy available at:

https://www.mohfw.gov.in/pdf/ReviseddischargePolicyforCOVID19.pdf

10.3. Dead body management

The dead body of a COVID case does not spread infection. The healthcare worker however handling the body immediately after death is at risk in case there is exposure to bodily fluids and shall be protected.

Detailed guidelines of dead body management as available at:

https://www.mohfw.gov.in/pdf/1584423700568_COVID19GuidelinesonDeadbodymanagement.pdf shall be followed.

11. Psychosocial support

Quarantine, isolation and being affected by a new disease, all can be very stressful for those involved and for their family members. Social distancing measures that force one to stay at home and resulting social isolation can be frustrating. This apart, the healthcare workers working under the fear of an unknown disease, under stressful and demanding situations, impact their mental well-being. A guidance note on dealing with various mental issues is available at: https://www.mohfw.gov.in/pdf/MindingourmindsduringCoronaeditedat.pdf.

The National Institute of Mental Health and Neuro-Sciences (NIMHANS) will be the nodal agency to plan and execute psycho-social support. NIHMANS will prepare a Psycho-Social Support plan and implement the same in the COVID affected areas.

12. Pharmaceutical interventions

As of now there is no approved specific drug or vaccine for cure or prevention of COVID-19.

However, Hydroxychloroquine has been recommended as chemoprophylaxis drug for use by asymptomatic healthcare workers managing COVID-19 cases and asymptomatic contacts of confirmed COVID-19 cases under medical supervision.

Advisory issued by ICMR in this regard is available at: https://www.mohfw.gov.in/pdf/AdvisoryontheuseofHydroxychloroquinasprophylaxisforSARSCoV2infection.pdf).

Contacts and healthcare workers receiving Hydroxychloroquine as chemoprophylaxis will be informed to report any untoward health event to nearest health facility.

In addition, a combination of Hydroxychloroquine and Azithromycin has been advocated for use in severe cases of COVID-19 under medical supervision.
Guideline on clinical management protocol of COVID-19 is available at: https://www.mohfw.gov.in/pdf/RevisedNationalClinicalManagementGuidelineforCOVID1931032020.pdf

13. NON-PHARMACEUTICAL INTERVENTIONS

In the absence of proven drug or vaccine, non-pharmaceutical interventions will be the main stay for containment of COVID-19 cluster.

13.1. Preventive public health measures

There will be social mobilization among the population in containment and buffer zone for adoption of community-wide practice of frequent washing of hands and respiratory etiquettes in schools, colleges, work places and homes. The community will also be encouraged to self-monitor their health and report to the visiting ASHA/Anganwadi worker or to nearest health facility.

13.2. Quarantine and isolation

Quarantine and Isolation are important mainstay of cluster containment. These measures help by breaking the chain of transmission in the community.

13.2.1. Quarantine

Quarantine refers to separation of individuals who are not yet ill but have been exposed to COVID-19 and therefore have a potential to become ill. There will be voluntary home quarantine of contacts of suspect /confirmed cases. The guideline on home quarantine is available at:

https://www.mohfw.gov.in/pdf/Guidelinesforhomequarantine.pdf

13.2.2. Isolation

Isolation refers to separation of individuals who are ill and suspected or confirmed of COVID-19. There are various modalities of isolating a patient. Ideally, patients can be isolated in individual isolation rooms or negative pressure rooms with 12 or more air-changes per hour.

In resource constrained settings, all positive COVID-19 cases can be cohorted in a ward with good ventilation (Covid Care Centre, Dedicated Covid Health Centre). Similarly, all suspect cases should also be cohorted in a separate ward. However, under no circumstances these cases should be mixed up. A minimum distance of 1 meter needs to be maintained between adjacent beds. All such patients need to wear a triple layer surgical mask at all times.

Pre-symptomatic cases/ very mild/ mild cases can opt for home isolation provided they follow the guidelines available at:

https://www.mohfw.gov.in/pdf/RevisedguidelinesforHomeIsolationofverymildpresymptomaticCOVID19cases10May2020.pdf

13.3 Social distancing measures

For the cluster containment, social distancing measures are key interventions to rapidly curtail the community transmission of COVID-19 by limiting interaction between infected persons and susceptible hosts. The following measures would be taken:

13.3.1 Closure of schools, colleges and work places

Administrative orders will be issued to close schools, colleges and work places in containment and buffer zones. Intensive risk communication campaign will be followed to encourage all persons to stay indoors for an initial period of 28 days, to be extended based on the risk assessment. Based on the risk assessment and indication of successful containment operations, an approach of staggered work and market hours may be put into practice.

13.3.2 Cancellation of mass gatherings

All mass gathering events and meetings in public or private places, in the containment and buffer zones shall be cancelled/banned till such time, the area is declared to be free of COVID-19 or the outbreak has increased to such scales to warrant mitigation measures instead of containment.

13.3.3. Advisory to avoid public places

The public in the containment and buffer zones will be advised to avoid public places and only if necessary for attending to essential services. The administration will ensure supply of enough triple layer masks to the households in the containment and buffer zones.

13.3.4. Cancellation of public transport (bus/rail)

There will be prohibition for persons entering the containment zone and on persons exiting the containment zone. To facilitate this, if there are major bus transit hubs or railway stations in the containment zone, the same would be made dysfunctional temporarily. Additionally, irrespective of fact that there is a rail/road transit hub, the perimeter control will take care of prohibiting people exiting the containment zone including those using private vehicles and taxies.

As significant inconvenience is caused to the public by adopting these measures in the containment zone, State government would proactively engage the community and work with them to make them understand the benefits of such measures.

Advisory on social distancing is at
https://www.mohfw.gov.in/pdf/SocialDistancingAdvisorybyMOHFW.pdf

14. Material Logistics

14.1. Personal Protective Equipment

Personal protective equipments are a scarce resource and needs to be used rationally. Guidelines for rational use of PPEs using a setting approach is at:

https://www.mohfw.gov.in/pdf/GuidelinesonrationaluseofPersonalProtectiveEquipment.pdf

Additional guidelines for Non- Covid areas are available at:

https://www.mohfw.gov.in/pdf/UpdatedAdditionalguidelinesonrationaluseofPersonalProtectiveEquipmentsettingapproachforHealthfunctionariesworkinginnonCOVID19areas.pdf

The State Government has to ensure adequate stock of personal protective equipment. The quantity required for a containment operation will depend upon the size & extent of the cluster and the time required containing it.

14.2. Transportation

A large number of vehicles will be required for mobilizing the surveillance and supervisory teams. The vehicles will be pooled from all Government departments. The shortfall, if any, will be met by hiring of vehicles.

14.3. Stay arrangements for the field staff

The field staff brought in for the surveillance activities and that for providing perimeter control need to be accommodated within the containment zone. Facilities such as schools, community buildings, etc. will be identified for sheltering. Catering arrangement will have to be made at these locations.

15. Risk communication

15.1 Risk communication material

Risk communication materials [comprising: (i) posters and pamphlets (ii) audio only material (iii) AV films (prepared by PIB/MoH&FW)] will be prepared and kept ready for targeted roll out in the entire geographic quarantine zone.

15.2 Communication channels

15.2.1 Interpersonal communication

During house to house surveillance, ASHAs/ other community health workers will interact with the community for:

(i) Reporting symptomatic cases
(ii) Contact tracing
(iii) Information on preventive public health measures.

15.2.2 Mass communication

Awareness will be created among the community through miking, distribution of pamphlets, mass SMS and social media. Also use of radio and television (using local channels) will ensure penetration of health messages in the target community.

15.2.3 Dedicated helpline

A dedicated helpline number will be provided at the Control Room (District Headquarter) and its number will be widely circulated for providing general population with information on risks of COVID-19 transmission, the preventive measures required and the need for prompt reporting to health facilities, availability of essential services and administrative orders on perimeter control.

15.2.4 Media Management

At the Central level, only Secretary (H) or representative nominated by her shall address the media. At the State level, only Principal Secretary (H), his/her nominee will speak to the media. At the District level DM/DC will address the media.

There will be regular press briefings/ press releases to keep media updated on the developments and avoid stigmatization of affected communities. Every effort shall be made to address and dispel any misinformation circulating in media including social media.

16. INFORMATION MANAGEMENT

16.1 Control room at State & District Headquarters

A control room (if not already in place) shall be set up at State and District headquarters, managed by designated officers. This shall be manned by State and District Surveillance Officer (respectively) under which data managers (deployed from IDSP/ NHM) responsible for collecting, collating and analyzing data from field and health facilities. Daily situation reports will be put up.

The state will provide aggregate data on daily basis on the following (for the day and cumulative):

i. Total number of suspect cases
ii. Total number of confirmed cases
iii. Total number of critical cases on ventilator
iv. Total number of deaths
v. Total number of contacts under surveillance

16.2 Control room in the containment zone

A control room shall be set up inside the containment zone to facilitate collection, collation and dissemination of data from various field units to District and State control rooms. This shall be manned by an epidemiologist under which data managers (deployed from IDSP/ NHM) will be responsible for collecting, collating and analyzing data from field and health facilities.

This control room will provide daily input to the District control room for preparation of daily situation report.

16.3 Alerting the neighboring districts/States

The control room at State Government will alert all neighboring districts. There shall be enhanced surveillance in all such districts for detection of clustering of symptomatic illness. Awareness will be created in the community for them to report symptomatic cases/contacts.

Also suitable provisions shall be created for enhancing horizontal communication between adjacent districts, especially for contact tracing exercise and follow up of persons exiting the containment zone.

17. Capacity building

It is expected that in such circumstances, large human resource requirement will be there to manage: (i) Field activities including surveillance, (ii) Clinical care at hospitals, (iii) laboratory testing and (iv) support staff to provide support services.

17.1 Training content

Trainings will be designed to suit requirement of each and every section of healthcare worker involved in the containment operations. These trainings for different target groups shall cover:

1. Field surveillance, contact tracing, data management and reporting
2. Surveillance at designated exit points from the containment zone
3. Sampling, packaging and shipment of specimen
4. Hospital infection prevention and control including use of appropriate PPEs and bio-medical waste management
5. Clinical care of suspect and confirmed cases including ventilator management, critical care management
6. Risk communication to general community and health service providers

17.2 Target trainee population

Various sections of healthcare workforce (including specialist doctors, medical officers, nurses, ANMs, Block Extension Educators, MHWs, ASHAs) and workforce from non-health sector (security personnel, Anganwadi Workers, support staff etc.) will be trained. A normative guidance is as under:

- Trained health workforce for surveillance – ANM, AASHA, Anganwadi, NSS, Red Cross, Ayush students and NYK Volunteers
- Trained supervisory field staff – PHC, Ayush and CHC doctors
- For COVID Care Center – AYUSH doctors
- For Dedicated COVID Health Center – PHC doctors
- For Dedicated COVID Hospitals – Training will be imparted on clinical and ventilatory management - Respiratory physicians, anaesthetists, intensivists, MBBS doctors who have handled ventilators, including DNB and MD students drawn from medical college/private hospitals.

District-wise trained manpower made available on dashboard of MoHFW and all training material made available on IGOT platform

Orientation training will be conducted by the RRT a day prior to containment operations are initiated.

17.3 Replication of training in other Districts

The State Govt. will ensure that unaffected Districts are also trained along the same lines so as to strengthen the core capacities of their RRTs, doctors, nurses, support staff and non-health field formations. These trainings should be accompanied with functional training exercises like mock-drills.

18. Financing of containment operations

The fund requirement would be estimated taking into account the scale of operations and funds will be made available to the district collector from NHM flexi-fund. The SDRF funds can also be used as per notification issued by Ministry of Home Affairs.

19. Scaling down of operations

The operations will be scaled down if no secondary laboratory confirmed COVID-19 case is reported from the geographic quarantine zone for at least four weeks after the last confirmed test has been isolated and all his contacts have been followed up for 28 days. A containment operation (large outbreak or cluster) is deemed to be over 28 days from the date the last case in the containment zone tests negative.

The closing of the surveillance for the clusters could be independent of one another provided there is no geographic continuity between clusters. However, the surveillance will continue for ILI/SARI.

States shall ensure that all required steps are taken to contain clusters within the large outbreak and chain of transmission is broken.

20. FOLLOWING UP OF ADDITIONAL GUIDELINES ISSUED FROM TIME TO TIME

As the situation is still evolving, based on additional evidence, and the spread of cases, additional guidelines are issued by the government from time to time. Those applicable in terms of management efforts in the identified clusters shall be taken into account and implemented accordingly.
The additional instructions, if any, are made available on MoHFW website from time to time.