

प्रेषक,

वी0 हेकाली झिमोमी,

सचिव,

उ0प्र0 शासन।

सेवा में,

1-समस्त मण्डलायुक्त,

उत्तर प्रदेश।

2- समस्त जिलाधिकारी,

उत्तर प्रदेश।

चिकित्सा अनुभाग-5

लखनऊः दिनांक: 19 अप्रैल, 2020

विषय: नोवल कोरोना वायरस 2019 (कोविड-19) बीमारी से संबन्धित वृहद प्रकोप की रोकथाम हेतु अद्यतन रोकथाम कार्ययोजना।

महोदय,

उपर्युक्त विषय पर सचिव, भारत सरकार, स्वास्थ्य एवं परिवार कल्याण मंत्रालय, नई दिल्ली द्वारा उपलब्ध कराए गये updated Containment Plan for Large Outbreaks, Novel Coronavirus Disease 2019 (COVID-19) (छायाप्रति संलग्न) प्रेषित करते हुए मुझे यह कहने का निदेश हुआ है कि उक्त नवीन अद्यतन कन्टेनमेन्ट प्लान में पूर्व में उपलब्ध करायी गयी दो कार्ययोजनाओं से पृथक कतिपय नवीन बन्दुओं का समावेश किया गया है:-

- कोविड-19 कार्यक्षेत्र में चारों तरफ कड़े प्रतिबन्ध लागू किये जाए।
 - लार्ज आउटब्रेक को परिभाषित किया गया है तथा यह भी उल्लिखित है कि 15 या अधिक कोरोना पाजीटिव केस वाले क्षेत्र को लार्ज आउटब्रेक क्षेत्र माना जायेगा।
 - कल्स्टर क्षेत्र में कोविड से प्रभावित व्यक्तियों की अबिलम्ब जानकारी प्राप्त की जाय।
 - भौगोलिक सीमाओं का सीमान्कन करते हुए प्रत्येक कल्स्टर की जीओ मैपिंग करते हुए बड़े प्रशासनिक यूनिट का डिप्लायमेन्ट किया जाय तथा क्षेत्र में कड़े प्रतिबन्धों के साथ व्यक्तियों के मूवमेन्ट को रोका जाय, यदि मैपिंग उपलब्ध नहीं है तो ग्रामीण एवं शहरी क्षेत्र में रोकथाम क्षेत्र का उल्लेख किया जाए।
 - सर्विलान्स अंतर्गत प्रत्येक हेल्थ वर्कर द्वारा औसतन 50 घर में सर्वे किए जाए, प्रश्नोत्तरी के आधार पर व्यक्तियों का इन्टरव्यू लिया जाए एवं दल द्वारा कोरोना से संक्रमित व्यक्ति के संपर्क में आये व्यक्तियों की लाइन लिस्टिंग तैयार की जाए तथा पर्यवेक्षक को प्रतिदिन की रिपोर्ट प्रेषित किया जाए।
 - आई0सी0एम0आर0 द्वारा प्रतिपादित परीक्षण मानकों का पालन किया जाए।
 - माइल्ड एवं अत्यधिक माइल्ड केसेज को कोविड केयर सेन्टर जो अस्पताल के नजदीक किसी चिन्हित स्थान होटल, गेस्ट हाउस, हास्टल आदि में रखे जाय। इसके अतिरिक्त कोविड-19 संक्रमित नाजुक केसेज जिन्हें क्रिटिकल देखभाल की आवश्यकता है तो कोविड-19 हेतु चिन्हित हास्पिटल में रखे जायेंगे।
- संभावित एवं कन्फर्मड कोविड-19 रोगी को चिन्हित केन्द्रों/अस्पतालों में रखने की पृथक व्यवस्था की जाए।

3- कृपया तदनुसार संलग्न updated Containment Plan for Large Outbreaks, Novel Coronavirus Disease 2019 (COVID-19) में सुझाए गये उपायों के अनुरूप आवश्यक रणनीति तैयार कर समुचित सुरक्षा व्यवस्था के साथ प्रभावी कार्यवाही सुनिश्चित करने का कष्ट करें।

संलग्नक: यथोपरि।

भवदीय,

(वी0 हेकाली झिमोमी)

सचिव।

संख्या-889 (1)/पांच-5-2020 तद्दिनांक।

प्रतिलिपि: निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित:-

1. मुख्य सचिव, उ0प्र0 शासन।
2. प्रमुख सचिव, मुख्य मंत्री, उ0प्र0 शासन।
3. प्रमुख सचिव, चिकित्सा शिक्षा, उ0प्र0 शासन।
4. महानिदेशक, चिकित्सा एवं स्वास्थ्य सेवाएं, उ0प्र0, लखनऊ।
5. निदेशक, संचारी रोग, उ0प्र0, लखनऊ।
6. गार्ड फाइल।

आज्ञा से,



(प्राणेश चन्द्र शुक्ल)

उप सचिव।

d/s/om
19.4.20
2001/3
19.4.2020



Updated Containment Plan for
Large Outbreaks
Novel Coronavirus Disease 2019
(COVID-19)

Ministry of Health and Family Welfare
Government of India

अविश.
17/04/2020

1. INTRODUCTION

1.1 Background

On 31stDecember 2019, the World Health Organization (WHO) China Country Office was informed of cases of pneumonia of unknown etiology (unknown cause) detected in Wuhan City, Hubei Province of China. On 7thJanuary 2020, Chinese authorities identified a new strain of Coronavirus as the causative agent for the disease. The virus has been renamed by WHO as SARS-CoV-2 and the disease caused by it as COVID-19. The disease since its first detection in China has now spread to over 200 countries/territories, As per WHO (as of 15thApril, 2020), there has been a total of 1914916 confirmed cases and 123010 deaths due to COVID-19 worldwide.

In India, as on 16thApril, 2020, 12759 confirmed cases (including 76 foreign nationals) and 420 deaths reported from 32 States/UTs. Large number of cases has been reported from Maharashtra, Delhi, Tamil Nadu, Madhya Pradesh and Rajasthan.

1.2. Risk Assessment

COVID-19 was declared a pandemic by WHO on 11th March, 2020. While earlier the focus of spread was centered on China, it has now shifted to Europe and North America. WHO has advised countries to take a whole-of-government, whole-of-society approach, built around a comprehensive strategy to prevent infections, save lives and minimize impact.

In India also, clusters and large outbreaks have been noted in parts of the country and unless they are contained in right time, the risk of further spread remains very high.

1.3. 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 jump species to 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 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). Nosocomial transmission has been described as an important driver in the epidemiology of SARS and MERS and has also been documented in COVID-19.

Current estimates of the incubation period of COVID range from 2-14 days, and these estimates will be refined as more data become available. Most common symptoms include fever, fatigue, dry cough and breathing difficulty.

Due to paucity of scientific literature based on community based studies, the available data on host factors is skewed towards cases requiring hospitalization. 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 Scenario: "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 universal screening of all International passengers at Points of Entries (PoEs).
- (iii) Surveillance and contact tracing through Integrated Disease Surveillance Programme (IDSP) for tracking travelers in the community who have travelled from affected countries.
- (iv) Early diagnosis through testing samples of suspect cases.
- (v) Buffer stock of Personal Protective Equipment (PPE) maintained.
- (vi) Risk communication for creating awareness among public to follow preventive public health measures.

2.2. Local transmission of COVID-2019 disease

Local transmission will lead to clustering of cases in time and space, epidemiologically linked to a travel related case or a positive case that has links to a travel related case. The cluster containment strategy will be:

- Extensive contact tracing and active search for cases in containment zone
- Testing all suspect cases and high risk contacts
- Isolating all suspect / confirmed cases and providing medical care.
- Quarantining contacts
- 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 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 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 stop 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, 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.

5.2. 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.

5.3. 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-19 in 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-19 over 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

6.1. Legal framework

The Central Government /State Government should review the existing legal instruments that provide legal support 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 Act.

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)

Emergency Medical Relief (EMR) division, Ministry of Health and Family Welfare will deploy the Central Rapid Response Team (RRT) to support and advise the State. The State will deploy its own State RRT and District RRT.

6.4. Identify area under geographic quarantine

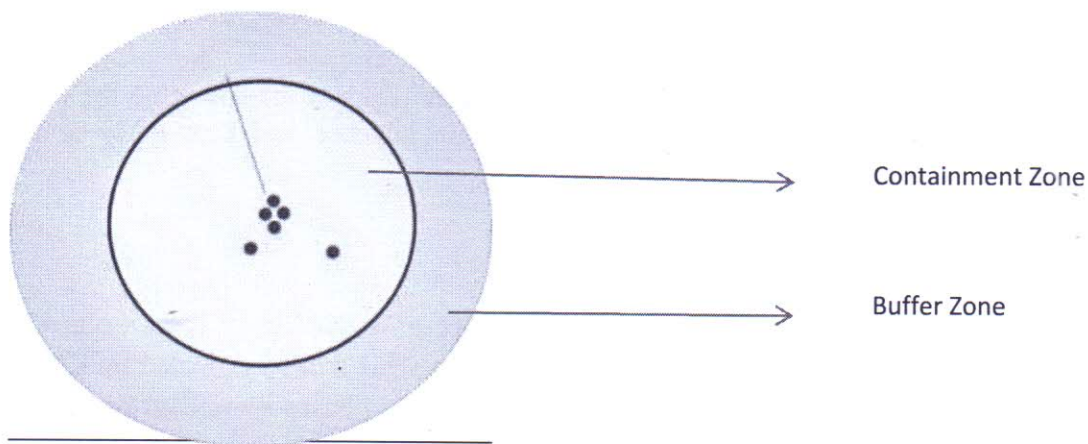
6.4.1 Defining containment and buffer zones:

Boundary for geographic quarantine will be defined based on: (i) geospatial distribution of each cluster contained within, (ii) largest administrative unit containing all clusters, and (iii) feasibility to implement strict interruption of movement of people.

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

Perimeter of the geographically quarantined will be decided by the State administration based on criteria defined in Para 6.4.1. Clear entry and exit points will be established. The perimeter controls that need to be applied is in para 7.4.

6.4.3 Activities in Containment and Buffer zones

Containment Zone	Buffer Zone
<ul style="list-style-type: none">• Defined area around epicenter• Perimeter control• Active search for cases• Testing of all cases as per sampling guidelines	<ul style="list-style-type: none">• Defined area around the containment zone• No perimeter control• No active search for cases• ILI/SARI cases report to health institutions falling in the buffer zone<ul style="list-style-type: none">○ Testing of ILI/SARI cases reporting to health institutions falling in the buffer zone

7. Surveillance

7.1. Precise mapping of the outbreak shall be carried out.

7.2 The Surveillance activities to be undertaken in the containment zone include:

Active case search will be done through house-to-house visit. For such purpose, a designated health worker will visit on an average 50 households. The surveillance would be done by ASHAs, Aaganwadi workers and ANMs. Additional workforce can be drawn from Red Cross, NSS, NYK, & Ayush students

The surveillance workers (COVID Warriors) will interview the households through a questionnaire regarding (i) signs, symptoms, (ii) travel history and (iii) history of contact with a confirmed/suspect COVID-19 case.

These teams will also do line listing of contacts and their tracking. They will also inform their supervisory officers of cases detected and contacts listed during the day. They will also collection, collation, daily reports.

7.3. Passive Surveillance shall be enhanced all throughout the area under geographic quarantine and the buffer zone. All hospitalized patients with Severe Acute Respiratory Illness shall also be tested for COVID-19 in containment and buffer zones.

7.4. 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. Thermal screening, IEC shall be carried out at all entry and exit points.

All vehicular movement, movement of public transport and personnel movement will be stopped. All roads including rural roads connecting the containment zone will be guarded by Police. For personnel and vehicles requiring regular movement, a pass/ID card may be issued with details recorded and communicated.

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 laboratories and designated private laboratories 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) shall also be engaged to collect/ 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.

ICMR testing protocol shall be followed. All test results should be available within 12-24 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 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

Laboratory/s will undertake testing of:

- (i) All symptomatic individuals who have undertaken international travel in the last 14 days,

- (ii) All symptomatic contacts of lab confirmed cases,
- (iii) All symptomatic health care workers,
- (iv) All patients with SARI (fever and cough and/or shortness of breath) and
- (v) 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.

At any point of time, the testing shall be done as per the testing criteria so enunciated by ICMR or Ministry of Health & Family Welfare.

9. Hospital care

All suspect/confirmed COVID-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.

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.

All contacts will be kept in home quarantine except for high risk contacts who would be kept in facility quarantine.

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.

Surge capacity will also need enhancement in terms of laboratory testing capacity as detailed in para 8.1 above.

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 knapsack sprayers).

For any further guidance Standard Operating Procedure (SOP) for transporting a suspect/confirmed case of COVID-19 may be referred to (Available at: <https://www.mohfw.gov.in/pdf/StandardOperatingProcedureSOPfortransportingasuspectorconfirmedcaseofCOVID19.pdf>)

9.3 Infection Prevention Control Practices

Health care associated infections among attending healthcare personnel are well documented in the current COVID-19 outbreak. There shall be strict adherence to Infection prevention control (IPC) practices in all health facilities. IPC committees would be formed (if not already in place). The designated hospitals will ensure that all healthcare staff is trained in washing of hands, respiratory etiquettes, donning/doffing & proper disposal of PPEs and bio-medical waste management.

At all times doctors, nurses and para-medics working in the clinical areas will wear three layered surgical mask and gloves. The medical personnel working in isolation and critical care facilities where aerosolisation is anticipated, will wear full complement of PPE (including N95 masks).

The support staff engaged in cleaning and disinfection will also wear full complement of PPE. Environmental cleaning should be done twice daily and consist of damp dusting and

floor mopping with Lysol or other phenolic disinfectants and cleaning of commonly touched surfaces with sodium hypochlorite solution.

Detailed guidelines available MoHFW's website on

- (i) Infection prevention and control in healthcare facilities,
 - (ii) Rational use of Personal Protective Equipment,
- may be referred to.

All healthcare workers must be advised to self-monitor their health and report any breach in IPC practices or occurrence of any illness.

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 oxymetry, oxygen therapy, non-invasive and invasive ventilator therapy. Detailed guidelines available on MoHFW's website and updated from time to time, may be followed.

Doctors managing severe COVID cases may contact AIIMS, Delhi (helpline - 9971876591) or through tele-medicine network to seek guidance for management of severe cases.

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 based on consecutive two samples tested negative and the patient is free from symptoms.

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 NeuroSciences (NIMHANS) will be the nodal agency to plan and execute psycho-social support. NIMHANS 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 intensive social mobilization among the population in geographic quarantine zone for adoption of community-wide practice of frequent washing of hands and respiratory etiquettes. The community will also be encouraged to self-monitor their health and report to the ASHA/Anganwadi worker visiting home 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 home quarantine/

facility quarantine of contacts of suspect /confirmed cases. The guideline on home quarantine available on the website of the Ministry provides detailed guidance on home quarantine.

The contacts advised quarantine will undergo risk profiling. Those above 60 or with co-morbidities will be shifted to designated quarantine facility. This will help identify early development of symptoms among them, their testing and shifting to isolation facility under para 9.

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.

In resource constrained settings, all positive COVID-19 cases can be cohorted in a ward with good ventilation. All suspect cases could also be cohorted in a separate ward. However, under no circumstances these cases should be mixed up.

The COVID Care Centers/Dedicated COVID Centers and Dedicated COVID Hospitals will all have separate facilities to keep suspect and confirmed cases.

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.

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 as the area is declared to be free of COVID-19.

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 shall be allowed for attending to essential services. The administration will ensure supply of enough triple layer masks to the households in the containment and buffer zones to be distributed through visiting surveillance teams.

13.3.4. Cancellation of public transport (bus/rail)

There will be prohibition for persons entering the geographic quarantine and on persons exiting the geographic quarantine 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 the 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 taxis.

As a 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.

13.3.5. Enforcement of Geographic quarantine.

The perimeter control and movement of vehicles within the containment zone will be prohibited except for those (identified through special passes) earmarked for providing essential services. Police check-posts at prominent locations will check vehicles and give necessary guidance by police. Those found defaulting of Government orders will be prosecuted.

14. Material Logistics

14.1. Personal Protective Equipment

The type of personal protective equipment for different categories of:

S. No.	Name of the item	Category of personnel
1	PPE Kit, N 95, Mask, Gloves,	• Doctors and nurses attending to patients in isolation, ICU/ critical care facilities of hospitals in the containment zone.

	Goggles, cap and shoe cover)	<ul style="list-style-type: none"> • Para-medical staff in the back cabin of ambulance performing interventional lifesaving maneuvers. • Those working in laboratories or collecting sample
2	N-95 Mask and gloves	<ul style="list-style-type: none"> • Supervisory doctors verifying a suspect case • Doctors/nurses attending patients in Screening fever clinics/ respiratory clinics / primary health care facilities
3	Triple Layer Surgical mask	<ul style="list-style-type: none"> • To be used by Field workers doing surveillance work • Staff providing essential services. • Suspect cases and care giver / by stander of the suspect case • Security staff. • Ambulance drivers

The State Government has to ensure adequate stock of Personal Protective Equipment (PPE). The quantity required for a containment operation will depend upon the size and extent of the clusters within the large outbreak and the time required for containing it. States will also ensure that the PPE are being used in accordance with the guidelines on rational use of PPE.

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.

14.4 Bio-medical waste management

A large quantity of bio-medical waste is expected to be generated from containment zone. Arrangement would also be required for such bio-medical waste (discarded PPEs, etc.), preferably by utilizing the bio-medical waste management services at the designated hospital.

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/MoHFW)] 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. 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 shall be sent to state government and central government without fail providing 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

Districts/State Government shall provide the required details through an online portal developed for the same by MOHFW.

16.2 Control Room in the geographic quarantine zone

A Control Room shall be set up inside the geographic quarantine 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 Headquarters 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.