nCorona – Guidelines

Department of Health and Family Welfare
Govt of Kerala

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1. Background

Clusters of pneumonia were being reported from Wuhan City, Hubei Province in China. Chinese authorities have identified it to be caused by a new type of Coronavirus (novel Coronavirus, 2019-nCoV). Coronavirus are a large family of viruses, with some causing less severe disease such as common cold and others more severe diseases such as MERS and SARS. The human to human transmission is variable with some easily transmitting and some do not transmit readily between people. Spread to various parts of China, and later to other countries has now been confirmed.

Hence, in this regards, it is desired that necessary precautions are to be taken to prevent the occurrence of these cases in the Country. It is recommended that the surveillance system for Acute Respiratory Infections/ Influenza like Illness (ARI/ILI) and screening at community level as well as health facility level to identify and respond to clustering of cases for early detection of impending SARI outbreaks through IDSP network is intensified. The case definitions for surveillance currently provided by WHO is annexed below. In view of the evolving information regarding the epidemiological correlates and transmission patterns, the guidance is subject to change at a short notice.

It is also advised keep a constant vigil and raise the level of awareness and knowledge of surveillance officers and healthcare provides (first or early responders) on case definitions, basic infection prevention control measures and standard precautions to be followed during the care and treatment of suspected patients.

The Ministry of Health and Family Welfare (MoHFW), GoI is also monitoring the situation closely in consultation with WHO and other stakeholders and any update received would be shared to all officials

Caution: The contents given below may be considered as interim guidance, and is liable to change as the situation evolves. Please make sure that you are referring to the latest version available at any given point of time .

2. Case definitions

1. Asymptomatic travelers

A traveler who has started journey from China,(not necessarily limited to Wuhan city) , or as the disease evolves, from any country notified to be 'affected' and has arrived in the state directly at one of the notified PoEs in the State, or indirectly after landing at neighbouring or other airports in the country, And who has no symptoms whatsoever.

2. Suspect case

i) A person with severe acute respiratory illness (SARI), + history of fever and cough requiring admission to hospital, + no other etiology that fully explains the clinical presentation (clinicians should also be alert to the possibility of atypical presentations in patients who are immunocompromised);

AND any one of the following

- A history of travel to Wuhan, Hubei Province China 14 days prior to symptom onset.
- *the disease occurs in a health care worker who has been working in an environment where patients with severe acute respiratory infections are being cared for, without regard to place of residence or history of travel;
- **the person develops an unusual or unexpected clinical course, especially sudden deterioration despite appropriate treatment, without regard to place of residence or history of travel, even if another etiology has been identified that fully explains the clinical presentation

Or

ii) Individuals with acute respiratory illness of any degree of severity who, within 14 days before onset of illness, had any of the following exposures:

- close physical contact with a confirmed case of nCoV infection, while that patient was symptomatic;
- a healthcare facility in a country where hospital associated nCoV infections have been reported;
- direct contact with animals (if animal source is identified) in countries where then CoVis known to be circulating in animal populations or where human infections have occurred as a result of presumed zoonotic transmission

,* OMU (outbreak monitoring unit) alert to be given to decide on further evaluation and management.

3. Confirmed case

The person as described above, in whom the recommended tests (Rt-PCR) /any other which may be notified later, from NIV Pune are documented as positive for n-CoV. Samples collected have to be transported to NIV Pune in a coordinated manner after laisoning with the Nodal Person at NIV, in the district. The DSO would be the nodal person to coordinate collection of samples, storage, dispatch etc as per existing guidelines on safe procedures

3. Screening, early identification and notification of suspect /probable passengers

1. With regard to preparedness to prevent spread of n-Corona virus in the country, initially 7 airports including CIAL Kochi have been advised to start passenger screening for arrival from affected area with fever. Very shortly it is inevitable that the other airports in Kerala will start screening process as done earlier for H1N1, Ebola, Zika, etc

2. The notified Points of Entry for Kerala will include the 4 airports and possibly the major and minor seaports (airports at TVM, EKM, MPM, KNR, and the major harbor at Kochi).

3. Passengers who have started their journey from the affected areas/countries (* the list will constantly get updated, please check latest versions from NCDC/IDSP) can arrive directly by air or sea at these PoEs and they will undergo screening process

4. Names of asymptomatic passengers from said origins will be forwarded by Airport Health Officer/ Ports Health Officer to SSO IDSP-ADHS PH Kerala and State Nodal Officer Dr.Amar.S.Fettle which will also be shared to the DSO/DSU of the concerned district.

5. These passengers will have to be kept under close surveillance under home quarantine by the concerned DSO/PHC Medical officer for 28 days from the time of departure from the affected country or from the time of contact with a suspected/confirmed patient.

6. Symptomatic passengers will be identified and either held in transit isolation at the PoE if available; eg at CIAL, or if not, details will be shared directly to the respective DSO for coordinated shifting to the designated/ linked isolation / higher care hospital, for further testing/isolation and clinical management

7. Passengers can arrive indirectly from geographically nearby airports (Chennai, Mangalore, Bangalore,Coimbatore,) by other means of transport like bus, train, taxi, own vehicle etc. These people will have to be identified promptly at community level, by convergent means involving Health, LSGD, Revenue, Police department etc. This process will usually be facilitated by direct cross border notification from APHOs/ PHOs of other major PoEs in the country to SSO-IDSP Kerala direct

8. Once identified, the passenger shall be processed as described above in (5) & (6)

B. Contact tracing

1. Contact tracing in case of symptomatic passengers is the most major exercise for reducing spread of any novel infection in the community. This has to be done systematically and intensively by directly informing the index passenger of the benefits, and detailed direct/phone interview covering every point of time from arrival in the country till entry into our health surveillance system. The details have to be logged into appropriate forms/templates which will be shared as soon as available from GoI. All details shall be shared with DMO/DSO, and consolidated, and summary will have to be shared with SSO IDSP-ADHS PH

2. The contact tracing exercise for each suspect passenger shall be linked live to teams responsible for tracing of secondary contacts

3. It is advisable to be prepared by identifying teams, at district, block and PHC levels, conducting trial runs or mock drills early enough so that there is an adequate level of preparedness before areal suspect is notified to your district

C**. Patient care.**

There is no specific management, patients will generally be managed as viral respiratory/disseminated infection as per symptoms and signs.

4. Safety procedures during sample collection and transport

All specimens collected for laboratory investigations should be regarded as potentially infectious, and HCWs who collect, or transport clinical specimens should adhere rigorously to infection prevention and control guidelines and national or international regulations for the transport of dangerous goods (infectious substances) to minimize the possibility of exposure to pathogens (14). Implement the

appropriate infection prevention and control precautions, guidance on IPC for the 2019-nCoV has been drafted (11).

Assure good communication with the laboratory and provide needed information

To assure proper and fast processing of samples and to assure adequate biosafety measures in the laboratory, communication and information sharing is essential. Be sure you have alerted the laboratory of the urgency and situation before sending the sample. Also assure that specimens are correctly labelled, and diagnostic request forms are filled out properly and clinical information is provided ie.,

Information to be recorded:

•Patient information – name, date of birth, sex and residential address, unique identification number, other useful information (e.g. patient hospital number, surveillance identification number, name of hospital, hospital address, room number, physicians' name and contact information, name and address for report recipient),and

• Date and time of sample collection,

• Anatomical site and location of specimen collection,

• Tests requested,

• Clinical symptoms and relevant patient history (including vaccination and antimicrobial therapies received, epidemiological information, risk factors).

The Specimens to be collected, and details related to collection and transport are as follows

1. Respiratory material* (nasopharyngeal and oropharyngeal swab in ambulatory patients and

sputum (if produced) and/or endotracheal aspirate or bronchoalveolar lavage in patients with more severe respiratory disease)

2. Serum for serological testing, acute sample and convalescent sample (this is additional to respiratory materials and can support the identification of the true agent, once serologic assay is available)

*Modifiable with information on whether upper or lower respiratory material is better for coronavirus detection.

A single negative test result, particularly if this is from an upper respiratory tract specimen, does not exclude infection.

Repeat sampling and testing, lower respiratory specimen is strongly recommended in severe or progressive disease. A positive alternate pathogen does not necessarily rule out either, as little is yet known about the role of coinfections

Specimen type	Collection materials	Transport to laboratory	Storage till testing	Comment
Nasopharyngeal and oropharyngeal swab	Dacron or polyester flocked swabs*	4 °C	≤5 days: 4 °C >5 days: -70 °C	The nasopharyngeal and oropharyngeal swabs should be placed in the same tube to increase the viral load.
Bronchoalveolar lavage	sterile container *	4 °C	≤48 hours: 4 °C >48 hours: –70 °C	There may be some dilution of pathogen, but still a worthwhile specimen
(Endo)tracheal aspirate, nasopharyngeal aspirate or nasal wash	sterile container *	4 °C	≤48 hours: 4 °C >48 hours: –70 °C	
Sputum	sterile container	4 °C	≤48 hours: 4 °C >48 hours: –70 °C	Ensure the material is from the lower respiratory tract
Tissue from biopsy or autopsy including from lung	sterile container with saline	4 °C	≤24 hours: 4 °C >24 hours: –70 °C	
Serum (2 samples acute and convalescent possibly 2-4 weeks after acute phase)	Serum separator tubes (adults: collect 3-5 ml whole blood)	4 °C	≤5 days: 4 °C >5 days: –70 °C	Collect paired samples: • acute – first week of illness • convalescent – 2 to 3 weeks later
Whole blood	collection tube	4 °C	≤5 days: 4 °C >5 days: –70 °C	For antigen detection particularly in the first week of illness
Urine	urine collection container	4 °C	≤5 days: 4 °C >5 days: –70 °C	

5. Sample Collection and Transport Guidelines for Laboratory diagnosis of novel Corona virus infection – 2020

Sample collection: The sample should be collected as early as possible with all biosafety precautions and accompanied with detailed history of patients on the performa which can be obtained from the testing laboratory ***(Presently National Institute of Virology, Pune in public sector is the testing laboratory which is diagnosing novel Corona virus infection by RT –PCR.***

The samples may be as follows

- Nasopharyngeal and Oropharyngeal swab
- Bronchoalveolar lavage
- Tracheal aspirate *(for patients in ventilator)*, nasopharyngeal aspirate or nasal wash
- Sputum
- Tissue from biopsy or autopsy including from lung.

For transport of samples for viral detection, use VTM (viral transport medium) containing antifungal and antibiotic supplements. Avoid repeated freezing and thawing of specimens.

Collection of Nasopharyngeal Swab:

This can be collected by two methods: (Through the nasal route or through oral route)

Nasopharyngeal swab through Nasal route:

- Insert a thin flexible swab into nostril and right upto nasopharynx.
- Leave the swab in place for a few seconds.
- Slowly remove swab while slightly rotating it.
- Use a different swab for the other nostril.
- Put swab with tip downwards into vial containing VTM, breaking applicator's stick.
- Both the swabs can be put in same VTM vial

Nasopharyngeal swab through Oral route:

• Insert a thin flexible swab through mouth over the tongue and turn the swab upwards behind the soft palate to reach the nasopharynx.
• Leave the swab in place for a few seconds.

- Slowly remove swab and put the swab with tip downwards into vial containing VTM, breaking the extra portion of the swab stick.

Transportation and Storage of samples:

- Personal protective equipments (apron, hand gloves, face shield, N95 Masks etc) need to be used and all biosafety precautions should be followed so as to protect individuals and the environment.
- Samples should be safely packed in triple container packing and should be transported under cold chain (4°C) to the testing laboratory with prior intimation. Before dispatching the sample, disinfect the outer surface of container using 1: 100 dilution of bleach or 5% Lysol solution.
- Sample containing vials should be kept in good quality plastic bags tied with rubber bands so that inside material if leaks should not come out of bag. The plastic bag should be kept in another container which should be sealed with adhesive tape. This carrier should be placed in another plastic bag sealed with rubber bands and placed in thermocol / vaccine carrier containing ice. The case sheets with complete information should be placed in plastic bag and should be pasted outside the container.
- Samples should be transported at 4°C if they arrive at the laboratory with 48 hours; The sample must be stored at – 70°C if storage is required for longer periods.
- Proper labelling (name/age/gender/specimen ID) need to be done on specimen container and other details of sender (name/address/phone number) on the outer container by mentioning **"To be tested for 2019-nCoV"** .
- Samples from the hospitals to be send to the concerned DSOs of the district, which will be send further to the Referral Lab.
- For any queries, the nodal officer from ICMR-NIV Pune (Dr Yogesh K. Gurav, Scientist E) may be contacted (Phone 020-26006290/ 26006390;

Email: gurav.yk@gmail.com/gurav.yk@gov.in) and need to be informed in advance before sending specimens to ICMR-NIV, Pune.

6. Pre hospital preparedness

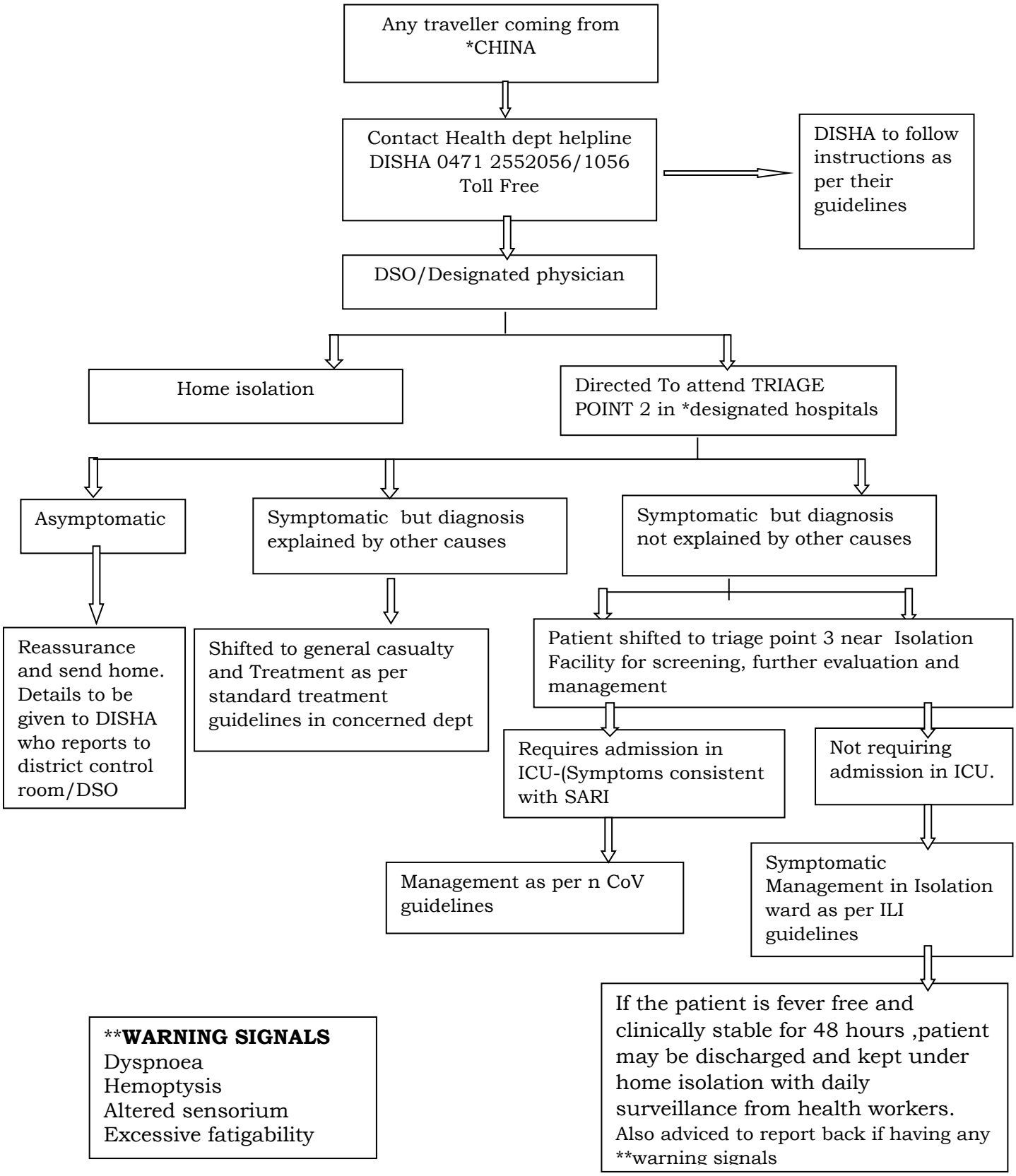
Modified triage system

The goal of triage in a disease outbreak is to prevent secondary transmission. A modified triage system called "3 point triage" shall be followed with respect to processing of patients who arrive at a hospital seeking care for corona virus infection. The aim of this system is to identify suspected cases and isolate them as early as possible to prevent secondary transmission.

Signages in malayalam and English shall be set up at points where there is que formation such as Op registration, pharmacy etc regarding the availability of a separate **triage point 2** for the assistance of such patients. Apart from the routine **triage point 1 in general casualty, triage point 2** will be set up at a place near isolation facility where patients fitting suspect case of corona virus will be screened . A patient with travel history to china will be directed to attend the triage point 2 where preliminary assessment will be done. If on preliminary assessment , he/she is found asymptomatic, reassurance will be given and will be send back home. The details of the patient including name, age, address and ph no will be given from triage point 2 to DISHA. DISHA will intimate the same to DSO who will intimate the concerned PHC for follow up for 28 days. . If the patient is found to be symptomatic but diagnosis is explained by other causes he will be Shifted to general casualty and treated as per standard treatment guidelines in concerned dept . . if the patient is found to be Symptomatic but diagnosis not explained by other causes patient shifted to triage point 3 near Isolation Facility in a separate room for screening, further evaluation and management. At **triage point 3** screening and evaluation will be done as per nCoV guidelines and will be admitted. Registers will maintained at this point for data collection which includes name, age, sex, address, symptoms, and history of exposure including travel history. All the health care providers at both these points will be provided adequate personnel protective equipment's.

A suspect corona case will be immediately masked at the first encounter and transferred to an triage point 3 ensuring that no contact happens with any other person during the transfer unless protected by PPEs. Strict infection control practices were adhered to at all these isolation points.

7. Algorithm to be followed in in case of suspected corona virus cases



*** affected countries as notified by WHO/MOHFW from time to time**

8. Management

Investigations

Syndrome specific investigations and tests to rule out tropical fever syndromes should be made based on the clinical scenario.

General treatment guidelines

Treatment is mainly supportive and ILI guidelines are to be followed. Treatment of secondary bacterial infections should be done as per the institutional antibiotic policy

Management of asymptomatic travelers

Home based

- Counseling and reassurance, family support
- Self-Isolation
- Daily monitoring coordinated by PHC MO on information received from DMO/DSO, and by the designated area field staff
- Referral and transportation management if indicated by development of symptoms, under direct liaison between DSO and MO PHC
- Number provision of DISHA Helpline 0471 2552056, (or 1056 toll-free) / local help line no of Medical Officer/ DSO
- Contact person's number to be given to family for general assistance
- IEC material dissemination

Management domains of a hospitalized suspect case

- Isolation
- Secondary care
- Tertiary care
- Ventilator readiness
- ICU space creation/earmarking/recruitment
- Clinical Management Team Sensitization
- Hospital Nodal Person/MO (Details to be shared to Nodal officer/SSO IDSP)
- Local Arrangements including logistics
- Referral system
- Strict Hospital Infection Control measures
- Necessary Capacity building
- Help desk functionality

© **Management of confirmed n-Corona Patient**

There is no specific drug as such. Management will include general supportive measures under full infection control protocols, and will conform to management of respiratory involvement according to severity , other bacterial co infection, etc, and other multi organ support as and when indicated . Detailed management guidelines are provided in the WHO document

Discharge policy

If the patient is fever free and clinically stable for 48 hours ,patient may be discharged and kept under home isolation with daily surveillance from health workers. Those who are discharged may watch for warning signals and should report to designated hospitals in case of positive warning signals.

Sick Health care worker as 'Red Flag'- any case of Viral Pneumonia in a hospital-based Health care worker (clinical/radiological with additional basic lab investigation correlation) should be considered as a red flag, as they are the highest risk category, and can contract infection from undiagnosed/ milder nCoV patient. These individuals should be moved to appropriate isolation facility and tested for nCoV.

This policy should be disseminated to Private Health Care sector also by the respective

Clinical management of severe acute respiratory infection when novel coronavirus nCoV) infection is suspected Interim guidance 12 January 2020 WHO/nCoV/Clinical/2020.1, soft copy of which has been made available to all DMOS and DSOs

9. Principles of infection prevention and control strategies associated with health care with suspected nCoV

IPC strategies to prevent or limit infection transmission in health-care settings include the following:

1. Early recognition and source control
2. Application of Standard Precautions for all patients
3. Implementation of empiric additional precautions (droplet and contact and whenever applicable airborne precautions) for suspected cases
4. Administrative controls
5. Environmental and engineering controls

1. Early recognition and source control

Clinical triage including early recognition and immediate placement of patients in separate area from other patients (source control) is an essential measure for rapid identification and appropriate isolation and care of patients with suspected nCoV infection. To facilitate early identification of suspect cases, healthcare facilities should:

- Encourage HCWs to have a high level of clinical suspicion
- Institute screening questionnaire and
- Post signage in public areas reminding symptomatic patients to alert HCWs.

Promotion of respiratory hygiene is an important preventative measure.

Suspected nCoV patients should be placed in an area separate from other patients, and additional IPC (droplet and contact) precautions promptly implemented.

2. Application of Standard Precautions for all patients

Standard Precautions include

1. Hand and respiratory hygiene
2. use of Personal protective equipment (PPE) depending on risk 3.Prevention of needle-stick or sharps injury;
3. safe waste management;
4. Environmental cleaning and sterilization of patient-care equipment and linen.

Ensure the following respiratory hygiene measures:

- 1.Offer a medical mask for suspected nCoV infection .

- 2.Cover nose and mouth during coughing or sneezing with tissue or flexed elbow .

- 3.Perform hand hygiene after contact with respiratory secretions.

Personal protective equipment (PPE).

-Rational, correct, and consistent use of available PPE and appropriate hand hygiene also helps to reduce the spread of the pathogens. PPE effectiveness depends on adequate and regular supplies, adequate staff training, proper hand hygiene and specifically appropriate human behaviour.

Ensure that environmental cleaning and disinfection procedures are followed consistently and correctly. Thorough cleaning of environmental surfaces with water and detergent and applying commonly used hospital level disinfectants (such as sodium hypochlorite) is effective and sufficient . Manage laundry, food service utensils and medical waste in accordance with safe routine procedures.

3. Implementation of empiric additional precautions for suspected nCoV infections

3.1 Contact and Droplet precautions for suspected nCoV infection:

- In addition to Standard Precautions, all individuals, including family members, visitors and HCWs should apply Contact and Droplet precautions

- Place patients in adequately ventilated single rooms.

- When single rooms are not available, cohort patients suspected of nCoV infection together;

Place patient beds at least 1m apart.

- Where possible, cohort HCWs to exclusively care for cases to reduce the risk of spreading transmission due to inadvertent infection control breaches.

- Use a medical mask .

- Use eye/facial protection (i.e. goggles or a face shield).

- Use a clean, non-sterile, long-sleeved fluid resistant gown.

- Use gloves.

- Use either single use disposable equipment or dedicated equipment (e.g. stethoscopes, blood pressure cuffs and thermometers). If equipment needs to be shared among patients, clean and disinfect between each patient use (e.g. ethyl alcohol 70%).

- Refrain from touching eyes, nose or mouth with potentially contaminated hands.

- Avoid the movement and transport of patients out of the room or area unless medically necessary. Use designated portable X-ray equipment and/or other important diagnostic equipment. If transport is required, use pre-determined transport routes to minimize exposures to staff, other patients and visitors and apply medical mask to patient.

- Ensure that HCWs who are transporting patients wear appropriate PPE and perform hand hygiene.

- Notify the receiving area of necessary precautions as soon as possible before the patient's arrival.

- Routinely clean and disinfect patient-contact surfaces.

- Limit the number of HCWs, family members and visitors in contact with a patient with suspected nCoV infection;

- Maintain a record of all persons entering the patient's room including all staff and visitors.

3.2 Airborne precautions for aerosol-generating procedures for suspected nCoV infection.

Some aerosol generating procedures have been associated with increased risk of transmission of coronaviruses (SARS-CoV and MERS-CoV) such as tracheal intubation, non-invasive ventilation, tracheotomy, cardiopulmonary resuscitation, manual ventilation before intubation and bronchoscopy.

Ensure that HCWs performing aerosol-generating procedures:

- Use a particulate respirator at least as protective as a NIOSH-certified N95. when putting on a disposable particulate respirator, always perform the seal-check. Note that if the wearer has facial hear (beard) this can prevent a proper respirator fit.

- Eye protection (i.e. goggles or a face shield).

- Clean, non-sterile, long-sleeved gown and gloves.

- If gowns are not fluid resistant, use a waterproof apron for procedures with expected high fluid volumes that might penetrate the gown

- Perform procedures in an adequately ventilated room or negative pressure rooms with at least 12 air changes per hour (ACH) and controlled direction of air flow when using mechanical ventilation

- Limit the number of persons present in the room to the absolute minimum required for the patient's care and support.

4. Administrative controls

Administrative controls and policies that apply to prevention and control of transmission of nCoV infections include

1. Establishment of sustainable IPC infrastructures and activities
2. HCWs training
3. Patients' care givers education.
4. Policies on early recognition of acute respiratory infection potentially due to nCoV.
5. Prevention of overcrowding especially in the Emergency department
6. Provision of dedicated waiting areas for symptomatic patients and appropriate placement of hospitalized patients promoting an adequate patient-to-staff ratio
7. Provision and use of regular supplies
8. IPC policies and procedures for all facets of healthcare provisions - with emphasis on surveillance of acute respiratory infection potentially due to nCoV among HCWs and the importance of seeking medical care; and monitoring of HCW compliance, along with mechanisms for improvement as needed.

5. Environmental and engineering controls

Spatial separation of at least 1-meter distance should be maintained between each suspect patient and others.

Duration of contact and droplet precautions for nCoV infection

Standard precautions should be applied at all times. Additional contact and droplet precautions should continue until the patient is asymptomatic.

Collection and handling of laboratory specimens from patients with suspected nCoV

All specimens collected for laboratory investigations should be regarded as potentially infectious, and HCWs who collect, or transport clinical specimens should adhere rigorously to Standard Precautions to minimize the possibility of exposure to pathogens.

- Ensure that HCWs who collect specimens use appropriate PPE (eye protection, medical mask, long-sleeved gown, gloves). If the specimen is collected under aerosol generating procedure, personnel should wear a particulate respirator at least as protective as a NIOSH-certified N95 mask.

- Ensure that all personnel who transport specimens are trained in safe handling practices and spill decontamination procedures.

- Place specimens for transport in leak-proof specimen bags (secondary container) that have a separate sealable pocket for the specimen (i.e. a plastic

biohazard specimen bag), with the patient's label on the specimen container (primary container), and a clearly written laboratory request form.

- Ensure that health-care facility laboratories adhere to appropriate biosafety practices and transport requirements according to the type of organism being handled.

- Deliver all specimens by hand whenever possible. DO NOT use pneumatic-tube systems to transport specimens.

- Document patients full name, date of birth of suspected nCoV of potential concern clearly on the accompanying laboratory request form. Notify the laboratory as soon as possible that the specimen is being transported.

10. Other general guidance

- Designated Ambulance Management system for transporting point to point probable /confirmed n-Corona patient
- DMOs/DSOs/DPMs updating process will be undertaken by SSU, IDSP/Nodal officer though all modes of communication.
- All district key officers to remain ensure that they are phone accessible 24x7 basis
- Name and contact details of designated hospital (Basic Isolation & Tertiary care) to be immediately informed by all 14 DMOs to SSO IDSP-ADHS PH and State H1N1 Nodal Officer Dr.Amar.S.Fettle
- Specifically, designated MO at the designated PoE –linked hospitals including Medical Collegesand the respective DH-- details to be informed by DMO(H) TVM, EKM, MPM KKD & KNR to theconcerned Airport/ APHO/ PHO and anticipatory liaison to be established for 24x7 contingenciesbetween the said officers
- At present DISHA Number 0471 2552056 can be used as a focal number which will link any callerseeking information, to an updated DSO, or later on, designated larger information team
- Further guidance notes will be forwarded as the situation evolves
- The daily report in the attached format should be sent to SSU IDSP and to h1n1kerala@gmail.com

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CAUTION: These guidelines are liable to change at short notice, as and when a disease scenario may evolve. Please make sure that you refer to the latest updated version as made before any further dissemination/application

For assistance, or to speak to an appropriate health expert or official, please call 24 x7 Health Dept NHM help line DISHA on 0471 255 2056, or 1056 toll free at any time

(Caution:Please make sure you are referring to latest updated guidelines at all times)

11. Surveillance and Contact Tracing Guidelines

This is the surveillance guidelines for 2019 novel Corona virus infection or 2019-nCoV and this will be abbreviated as nCoV.This document is based on the current

information available. The outbreak situation at the global level is evolving and hence the current document will be modified accordingly.

Case Definitions for Surveillance

Asymptomatic travellers :

A traveller who has started journey from China(not necessarily limited to Wuhan city), or as the disease evolves, from any country notified to be 'affected' and has arrived in the state directly at one of the notified PoEs (Point of Entry) in the State, or indirectly after landing at neighbouring or other airports in the country and who has no symptoms whatever.

Suspect nCoV Case :

A. Patients with severe acute respiratory infection (fever, cough, and requiring admission to hospital), **AND** with no other etiology that fully explains the clinical presentation **AND** at least one of the following:
   - History of travel to or residence in the city of Wuhan, Hubei Province, China in the 14 days prior to symptom onset, or
   - Patient is a health care worker who has been working in an environment where severe acute respiratory infections of unknown etiology are being cared for.

B. Patients with any acute respiratory illness **AND** at least one of the following:
   - Close contact with a confirmed or probable case of 2019-nCoV in the 14 days prior to illness onset, or
   - Visiting or working in a live animal market in Wuhan, Hubei Province, China in the 14 days prior to symptom onset, or
   - Worked or attended a health care facility in the 14 days prior to onset of symptoms where patients with hospital-associated 2019-nCov infections have been reported.

Probable case:

A suspect case for whom testing for 2019-nCoV is inconclusive or for whom testing was positive on a pan-coronavirus assay.

Confirmed case:

A person with laboratory confirmation of 2019-nCoV infection, irrespective of clinical signs and symptoms.

CONTACT TRACING:

Contact tracing is the process of identifying, assessing, and managing people who have been exposed to a disease to prevent onward transmission. People who may have been exposed to 2019-nCoV are to be followed for 28 days from the date of the probable last exposure/arrival from 2019-nCoV affected countries.

Any person who has had contact with a patient under investigation/treatment for suspected, probable or confirmed case of 2019-nCoVshould be carefully monitored for the appearance of symptoms of 2019-nCoV.

Definition of a Close Contact:

1. Health care associated exposure, including providing direct care for nCoV patients, working with health care workers infected with novel coronavirus, visiting patients or staying in the same close environment as a nCoV patient.
2. Working together in close proximity or sharing the same classroom environment with a nCoV patient
3. Traveling together with a nCoV patient in any kind of conveyance
4. Living in the same household as a nCoV patient

- The epidemiological link may have occurred within a 14-day period before or after the onset of illness in the case under consideration.

Community based Contact Tracing Implementation Guidelines

1. As soon as the single event (identification of suspect or confirmed case) is detected, contact tracing must be aggressively implemented (preferably to be completed within 48 hours).

2. The contact tracing shall preferably be done by visiting the local residence of the contact(s) by a Health Personnel. Other methods of communication like telephone may be used in certain circumstances or for follow-up.

3. On meeting the 'contact person' the visiting Health Personnel should introduce him (her)- self, explain the purpose of contact tracing and should collect data in the prescribed format given below. Case wise Line-listing of all exposed contacts shall be maintained.

4. Contact tracing must include identification of extended social networks and travel history of cases during the 28 days after onset of illness.

5. Contacts of confirmed cases should be traced and monitored for at least 28 days after the last exposure to the case patient for evidence of 2019-nCoV symptoms as per case definition.

6. Information about contacts can be obtained from:

a. Patient, his/her family members, persons at patient's workplace or school associates, or

b. others with knowledge about the patient's recent activities and travels.

Daily format for contact tracing

Date of reporting ----------

Sl No	Name of case	Name of contact	Age of contact	Address of the contact	Phone no of contact	Gender	Category of contact HH Hospital Community	HCW Yes No	Type of exposure - Close contact 1.Yes 2. No	Symptomatic 1.Yes 2. No	Day of follow up	Date of last contact with the case	Release from follow up 1.Yes 2. No

HCW – Health Care Worker

HH – Household contact

12. Guidelines for asymptomatic persons returning from corona virus affected areas* and their close contacts.

- If you have travelled to the state starting from China anytime in the last 28 days you should be under strict home isolation for 28 days from the day of departure.
- Avoid visiting crowded places such as malls , theatres ,markets etc.
- Preferably restrict visitors.
- Respiratory hygiene to be followed (which includes covering mouth and nose while coughing and sneezing ,using handkerchief / towel /flexed elbow / three layer mask).
- Hand hygiene to be practiced (which includes washing hands with soap and water or with alcohol based hand sanitizer) after coughing or sneezing.
- If you develop symptoms such as fever ,sore throat , cough , breathlessness at any time , contact DISHA helpline number immediately (0471-2552056) or the health care worker allotted to you for guidance. Do not take self-treatment or any tests on your own.
- Household contacts of the persons with symptoms should avoid close physical contact, and maintain at least 1 meter distance while interacting .
- You are advised to take adequate rest , nutritious food and plenty of warm home available fluids (like rice water), fruits , vegetables etc.
- Masks ,tissues or other waste generated by you should be placed in a separate container in your room and disposed appropriately.
- Clean and disinfect bedroom , toilet and other articles you have used with bleach solution (3 teaspoons per litre of water) daily.
- For any guidance, please contact the Health Departments 24x7 Help line, DISHA on 04712552056 , or 1056 toll free

- *List of affected countries may change later on as advised by MOHFW

*As per WHO guidelines.

13. SOP for field surveillance of asymptomatic passengers under home isolation

1. **The MO PHC shall** be responsible for the surveillance and follow up of the above category of individuals
2. The list of persons to be put under such surveillance is to be based on –

- List forwarded by DSO
- Any person reporting by self to MO PHC (rule out duplication)
- Any such person reported by another concerned individual/member of the public/ field staff (after verifying history)

3. MO PHC shall allot a sensitized field staff member to follow up the person on daily basis by direct or phone interaction, for a period of 28 days of his/her departure to Kerala from China/notified country
4. MO PHC shall submit daily report to DMO daily without fail including on holidays by 3 pm positively with regard to

a) details of the persons put under home isolation newly ,
b) those already on isolation, till the 28th day from their departure from China/affected country,
c) those removed from isolation on expiry of the mandated 28 day period.

5. MO PHC shall make arrangement to supply essential materials such as masks/bleaching powder as needed

The assigned field staff with respect to a person under home isolation shall--

- Provide necessary reassurance, and technical guidance regarding safety measures while under home isolation
- Provide a written IEC sheet on the same
- Provide the DISHA 24x & Health department Helpline number 0471-2552056 to the person and family and explain the use of the number
- Document the health of the person in the format provided by DSO , and submit to MO PHC for inspection and transmission to DSO
- Inform MO PHC immediately directly/by phone, irrespective of time n the event of any information received from the person/family about development of symptoms whatsoever.
- In such case, the MO PHC shall examine the patient following HAIC guidelines and inform DSO of the status of the patient, and follow guidance on further steps like shifting to hospital isolation, ensuring dedicated ambulance logistics etc

14. GUIDANCE NOTE TO TRAVEL AND TOURISM INDUSTRY

This guidance note comprised of two parts – instructions to hotel and tourism industry authority and instructions to be issued to guests from the hotel authorities.

I. To hotel and tourism industry owners

1. All guests are requested to be notified that there is an existing public health alert in the country, with respect to 2019-nCOV infection, and to follow the guest advisory in their place of stay.
2. Guest advisory to be mandatorily maintained and displayed, with copies given to guests by each hotel/tourism facility.
3. Good care is to be taken regarding maintenance of room hygiene using standard disinfectant sanitary measures.
4. If any tourist travelling from People's Republic of China and other notified countries, is observed to have respiratory symptoms (including fever, cough, sore throat, breathlessness), during the period of stay, the staff is mandatorily requested to contact **Health Department, 24X7 helpline (DISHA) - 0471 2552056 / 1056 – toll free**. This will connect you to District Surveillance officers of your respective districts, who will advise you regarding further measures to be taken and provide live guidance.
5. The authorities are also mandatorily instructed to inform respective District Surveillance officer, of arrival of tourists from People's Republic of China and other notified countries, in their tourist facility, on a daily basis.
6. The hotel/ tourist industry staff-in-charge shall inform all the guests of the above instructions regularly.
7. Addresses and details of District level officers of Health services is appended for your information

Name of District	Name of DMO	Phone No.	email. ID
Trivandrum	Dr.Preetha P.P	9946105472	dmohealthtvm@gmail.com
Kollam	Dr V V Sherly	9946105473	dmohkollam@gmail.com
Pathanamthitta	Dr. AL Sheeja	9946105475	dmohpathanamthitta@gmail.com
Idukki	Dr.Priya N.	9946105481	dmohik@gmail.com
Kottayam	Dr Jacob Varghese	9946105479	dmohktm@yahoo.co.in

Alappuzha	Dr. Anitha Kumary L	9447081723	dmohalppy@yahoo.co.in
Ernakulam	Dr. N K Kuttappan	9496545066	dmohekmoffice@gmail.com
Trissur	Dr.K.J.Reena	9656669153	dmohtsr123@yahoo.com
Palakkad	Dr.K. P. Reetha	9495172972	palakkaddmo@gmail.com
Malappuram	Dr. K Sakeena	9946105489	dmomalappuram@gmail.com
Kozhikkode	DR. JAYASREE .V	9946105491	dmohkkd@yahoo.co.in
Wayanad	Dr.Renuka .R	9946105493, 9497809585	dmowayanad@gmail.com
Kannur	Dr. K NarayanaNaik	9946105495	dmohkannur@gmail.com
Kasaragode	Dr. A P Dinesh Kumar	9946105497	dmohksd@gmail.com

Name of District	Name of DSO	Phone No.	e-mail of DSU
Trivandrum	Dr.Neena Rani G	9446121586	ccddmotvm@gmail.com
Kollam	Dr R Sandhya	9744140055	kollamidsp@gmail.com
Pathanamthitta	Dr. Nandini C.S	7593864224	dsupathanamthitta@yahoo.com
Idukki	Dr.Sushama P.K.	9495962691	dmohik@gmail.com
Kottayam	Dr Rajan KR	9495088514	idspkottayam2016@gmail.com
Alappuzha	Dr. Deepthy	9447043649	idspalpy@gmail.com
Ernakulam	Dr. Sreedevi S	9447811295	dmohekm@gmail.com
Trissur	Dr.Anoop T.K	9447282986	idsptsr@gmail.com

Palakkad	Dr. K A Nazar	9745618232	idsppkd@yahoo.co.in
Malappuram	Dr. Mohammed Ismayil .K	9847183440	dsomalappuram@gmail.com
Kozhikkode	Dr. ASHADEVI	9947068248	idspkozhikode@yahoo.co.in
Wayanad	Dr.Noona Marja	8111970336	dmoidspwyd@yahoo.com
Kannur	Dr. Shaj MK	9447256458	idspkannur@gmail.com
Kasaragode	Dr.Manoj.AT	9447856131	idspksd@hotmail.com

II. Instructions to be issued to all travelling guests from the hotel/ tourism institution owners

1. You are hereby notified that there is an existing public health alert in the country, with respect to 2019-nCOV infection.
2. Please keep yourselves notified of the guest health advisory in your places of stay
3. Please do follow cough etiquette at all times . (Cover your mouth and nose with a tissue when coughing or sneezing, If tissues are not available cough/sneeze into your upper arm or sleeve; avoid using your hands; avoid spitting; Maintain hand hygiene, Always wash your hands after coughing/sneezing with soap and water or with alcohol-based hand sanitiser).
4. Please inform, your complete travel itinerary and route of travel alongwith your available contact numbers, to the hotel authorities.
5. All travelling guests(including all members of tourist teams) are to keep the Health Department, 24X7 helpline (DISHA) - 0471 2552056 / 1056 – toll free number, with them, which will connect to District Surveillance officers, for live guidance. Kindly refrain from any self treatment or self testing or over the counter treatment.
6. In case you develop any respiratory symptom (including fever, cough, sore throat, breathlessness), they are requested to contact **Health Department, 24X7 helpline (DISHA) - 0471 2552056** / 1056 – toll free number, which will connect you to health service doctors, who will guide you live on what to do next and location of nearest healthcare facility.
7. You are also requested to help the Health Department, in maintaining health surveillance, for a period of 28 days from the date of departure from your country of travel (including People's Republic of China and other notified countries).

15. PROTOCOL FOR SENDING DAILY HEALTH STATUS OF PASSENGERS UNDER OBSERVATION

SOPs for SSOs

1) SSU will receive line list / emails of Passengers under observation, coming from 2019-nCoV affected countries* from APHO, Office of Emergency Medical Relief, MEA or CSU.

2) SSU will share the line list / mails with DSUs immediately and Ensure immediate tracing of Passengers under observation by DSUs.

3) Information regarding any passenger who travels to another State will be immediately notified to the concerned State Health authority and comment shared in Format C.

4) SSU will receive complete investigation details in enclosed Format A from DSU as soon as possible on the same day.

5) SSU will ensure daily follow up of Passengers under observation for 28 days starting from date of last exposure/arrival.

6) SSU to compile the line list of all Passengers under observation daily, updating daily health status of Travelers / Suspects in enclosed Format B and share daily report of health status of Passengers under observation with CSU / EMR daily (Format C).

7) If any passenger is not traceable initially or during any duration while being followed up should be immediately notified to CSU.

All SSUs will keep themselves updated by routinely checking WHO and NCDC website on 2019-nCoV. Any guidelines shared by MoHFW on 2019-nCoV will be disseminated to concerned State/District authorities.

SOPs for DSU

1) Receive line list/ email of Passengers under observation from SSU/CSU/APHO.

2) Immediately trace the Passengers under observation and begin investigation and fill the enclosed format A. On first visit, passenger is to be provided a mask to be put on immediately in case symptoms such as fever and cough develop.

3) Passenger will be provided following advice during first visit by Health care provider:

a. You will also receive daily calls/visit from health department to ask your health status for the day, kindly cooperate with them.

b. You are requested to self-monitor for development of symptoms suggestive of nCoV i.e. Fever and Cough for 28 days from the date of arrival from nCoV affected countries*.

c. In case you initiation of symptoms (fever and cough), put on the mask immediately, restrict your outdoor movement and contact 24 hours helpline number 011-23978046. The Call operator will tell you whom to contact further. In the meanwhile, keep yourself isolated in your house/room.

4) DSU has to ensure daily follow up of Passengers under observation for 28 days starting from date of possible exposure/arrival. Passengers will also be counseled for self-reporting of illness suggestive of 2019-nCoV.

5) Information regarding any passenger who travels to another District will be immediately notified to the concerned District Health authority and SSU.

6) In case, Passengers under observation develop symptoms suggestive of ARI/ILI, S/he has to be shifted to identified health facility with isolation unit (as transmission pattern of the virus is still unclear). Laboratory guidelines will be shared soon.

7) Daily follow up of Passengers under observation to be continued for 28 days starting from the date of last exposure/departure.

8) If any passenger is not traceable initially or during any duration while being followed up should be immediately notified to SSU/CSU.

9) Daily health status to be shared with SSU every day by 12:00 PM.

*Currently China only.

Advisory:

1. Format C to be sent positively every day to idsp-npo@nic.in by 12:00 pm including 'Nil' report.

2. The passenger has to be observed from 28 days from the day of possible exposure/arrival to India.

3. In case passenger develop any symptom, s,he will be requested to wear amask. Health care provider will arrange for the transfer of such patient from home to isolation facility. During the procedure, standard infection control practice for eg. wearing mask and hand washing should be performed by Health care providers.

16. REFERENCES

1. https://www.who.int/publications-detail/global-surveillance-for-human-infection-with-novel-coronavirus-(2019-ncov)
2. https://www.who.int/health-topics/coronavirus/laboratory-diagnostics-for-novel-coronavirus
3. https://www.who.int/internal-publications-detail/home-care-for-patients-with-suspected-novel-coronavirus-(nCoV)-infection-presenting-with-mild-symptoms-and-management-of-contacts
4. https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected
5. https://mohfw.gov.in/sites/default/files/Guidelines%20on%20Clinical%20management%20of%20severe%20acute%20respiratory%20illness.pdf
6. https://mohfw.gov.in/sites/default/files/Guidance%20document%20-%202019-nCoV.pdf
7. https://mohfw.gov.in/sites/default/files/5Sample%20collection_packaging%20%202019-nCoV.pdf