

UNITED NATIONS MEDICAL DIRECTORS COVID-19 PANDEMIC GUIDELINES_v2

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KEY UPDATES:

Updates made to version 2 of this document as compared to version 1 (published in March 2020) are as follows:

1. Additional information about clinical features has been added to the “Disease Characteristics” section.
2. Updates to the “Disease Severity” section have been made including multisystem inflammatory syndrome in children and adolescents (MIS-C) temporally related to COVID-19.
3. Consideration for a non-medical mask (also known as cloth mask or fabric mask) is included in the “In a Community Setting” section.
4. Information on asymptomatic and pre-symptomatic transmission has been added.
5. Updated information on case fatality ratio has been included.
6. Isolation duration “In a Community Setting” has been updated to reflect recent WHO guidance and has been included in the isolation section as well.
7. Link to updated WHO guidance on environmental cleaning and disinfection has been added.
8. Comment on asymptomatic testing has been added to the “Laboratory Testing” section.
9. UN Model of Care link added to “Local Medical Structure and Medevac” section.
10. Updates to “Management of Human Remains” section and link to WHO guidance on body bags and management of dead body in the context of COVID-19 has been added including links to ICD codes.
11. Information and links on contact tracing added to the section on “management of contacts and quarantine”.
12. Updates to “Pregnant and Breastfeeding Women” section to support breastfeeding with appropriate precautions are included.
13. Additional information on “Management of Contacts and Quarantine” has been included.
14. Diagrams to assist in the differentiation between quarantine and isolation have been added for additional clarity.
15. Information in bed placement in congregate settings in UN duty stations has been added.
16. WHO case definition information and link have been updated.
17. All hyperlinks updated to current available/new ones.

BACKGROUND

SCOPE AND PURPOSE

This United Nations Medical Director's document provides guidance and tools on COVID-19 Pandemic Preparedness to ensure a **consistent and coordinated public health response across the UN System**. This guidance should be adapted to local authorities' and local WHO office's protocols, where available. The emerging evidence on COVID-19 continues to evolve and further updates may be made to this guidance as new evidence emerges. For any questions on this document, contact dhmosh-public-health@un.org

DISEASE CHARACTERISTICS

In late 2019, a novel coronavirus, Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), was identified as the cause of an outbreak of an acute respiratory illness in Wuhan, China. In February 2020, the World Health Organisation (WHO) designated the disease as COVID-19, which stands for coronavirus disease 2019 which is the disease caused by the virus SARS-CoV-2.

Since the first reports of COVID-19, the infection has spread worldwide, prompting the WHO to declare a public health emergency of international concern in late January 2020 and characterize it as a pandemic in March 2020. As of August 10, 2020 there have been over 20 million COVID-19 cases globally. For the latest situation report from WHO, see <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports/>

Person-to-person transmission of SARS-CoV-2 is thought to occur mainly via respiratory droplets generated by coughing and sneezing, and to a lesser extent through direct or indirect contact with contaminated surfaces or objects (fomites) i.e. droplet and contact transmission. Respiratory droplets are <5 micrometres and typically do not travel more than 1-2 meters and do not linger in the air. Airborne transmission can occur during certain medical procedures called aerosol generating procedures. Some outbreaks reports related to indoor crowded spaces have suggested the possibility of aerosol transmission, together with droplet transmission. Examples include outbreaks related to choir practice, in restaurants or fitness classes. The WHO and the scientific community are actively evaluating the role that airborne transmission might play in the spread of COVID-19. For more information on transmission please see: <https://www.who.int/publications/i/item/modes-of-transmission-of-virus-causing-covid-19-implications-for-ipc-precaution-recommendations>. It is thought that individuals are able to transmit COVID-19 up to 48 hours before the onset of symptoms as SARS-CoV-2 RNA has been detected in people 1-3 days before symptom onset with the highest viral loads detected around the day of symptom onset. The **incubation period** is thought to be 2-14 days following exposure, though most cases occur around 5 days after exposure. Both **asymptomatic and pre-symptomatic spreads** have been described and viable virus has been detected in these patient populations.

Spectrum of symptomatic infection varies from **mild to critical**. The most common symptoms of COVID-19 are fever, cough and shortness of breath. Some patients may have myalgia, weakness/fatigue, nasal congestion, coryza, dyspnea, sore throat, conjunctivitis, headache or anorexia, nausea, vomiting, diarrhea and altered mental status. Individuals might present with only one of these symptoms while others have a combination of the symptoms previously mentioned. Other signs including anosmia and ageusia have also been described in the literature sometimes preceding the onset of respiratory symptoms. Cutaneous findings have also been described with COVID-19 including but not limited to "COVID toes". Most people experience **mild or moderate** symptoms and can be managed at home (non-hospital setting). These symptoms are non-specific and can mimic other respiratory illnesses such as those caused by the seasonal influenza and other respiratory viruses. Severe

or critical illness can present with pneumonia, ARDS and sepsis. For more information refer to WHO's case definition for a suspected, probable and lab-confirmed case available at <https://www.who.int/publications/i/item/who-2019-nCoV-surveillanceguidance-2020.7>

Asymptomatic infections have also been described. The full extent of those who are truly asymptomatic (versus those who are pre-symptomatic - meaning that they have not developed symptoms yet but will) remains unknown and ongoing area of study. For more information on asymptomatic infection and transmission please see: <https://www.who.int/news-room/commentaries/detail/transmission-of-sars-cov-2-implications-for-infection-prevention-precautions>

Complications of COVID-19 include coagulopathy such as stroke and clots, and neurological complications such as encephalopathy and delirium have also been described. See <https://www.who.int/publications-detail/clinical-management-of-covid-19> for more information.

A syndrome thought to be linked to COVID-19 was first seen in the United Kingdom and then elsewhere in the world. More information is available at: <https://www.who.int/publications/i/item/multisystem-inflammatory-syndrome-in-children-and-adolescents-with-covid-19>

DISEASE SEVERITY / PLANNING ASSUMPTIONS

Early in the pandemic, the largest cohort reported of >44,000 persons in China with symptomatic COVID-19 showed that illness can range from mild to critical:

- 40% of confirmed cases reported **mild disease** -- i.e. treatment is symptomatic and can be managed at home, and does not require inpatient care;
- 40% of confirmed cases reported **moderate disease** – i.e. can be managed either at home, or as inpatient;
- 15% of confirmed cases reported **severe disease** – i.e. requires oxygen therapy, has dyspnea, hypoxia, or >50 percent lung involvement on imaging within 24 to 48 hours;
- 5% of confirmed cases reported **critical disease** – i.e. requires mechanical ventilation, has respiratory failure, shock, or multiorgan dysfunction.

In this study, all deaths occurred among patients with critical illness and the overall case fatality rate was 2.3%. It should be noted that the proportion of severe or fatal infections may vary by location and age. This may be due to distinct demographics of infection¹.

Estimating mortality from COVID-19 can be done in two ways one is via the infection fatality ratio (IFR) which estimates the proportion of deaths amongst all those infected with the virus. The case fatality ratio (CFR) estimates the proportion of deaths amongst identified confirmed cases. Early in the pandemic the CFR was mainly used and has varied from <0.1% to >25% depending on the country. For more information see: <https://www.who.int/publications/i/item/WHO-2019-nCoV-Sci-Brief-Mortality-2020>

In terms of the impact of age on severity, to date, most of the fatal cases have occurred in patients with advanced age or underlying medical comorbidities. **Known risk factors** for severe COVID-19 and increased mortality are age >60 years (increasing with age), hypertension, diabetes, cardiovascular

¹ As an example, in Italy, 12 percent of all detected COVID-19 cases and 16 percent of all hospitalized patients were admitted to the intensive care unit; the estimated case fatality rate was 5.8 percent in mid-March [45]. In contrast, the estimated case fatality rate in mid-March in South Korea was 0.9 percent [46]. This may be related to distinct demographics of infection; in Italy, the median age of patients with infection was 64 years, whereas in Korea the median age was in the 40s.

disease, chronic lung disease, cerebrovascular disease, chronic kidney diseases, immunosuppression and cancer. Smoking is also a risk factor for severe disease². A recent US CDC report suggests that pregnant women may be at increased risk for severe COVID-19 illness. For more information, see <https://www.cdc.gov/mmwr/volumes/69/wr/mm6925a1.htm>

The experience of several countries was that mortality was highest amongst older individuals, e.g. in China, 80 % of deaths occurring in those aged ≥65 years. Symptomatic infection in children appears to be uncommon; when it occurs, it is usually mild, although severe cases and few deaths have been reported.

Based on current information and studies, WHO estimates that **in a general population**, about **15% of COVID-19 cases will be severe** (requiring hospitalization and oxygen), and **5% of COVID-19 cases will be critical** (requiring ventilation), requiring significant health capacity and critical-care infrastructure. This reflects a higher level of severity compared to influenza and is likely due to the fact that many mild cases are not diagnosed.

It should be noted that the severity of cases and the case-fatality rate differ by age. **For the UN**, the case fatality rate in our UN personnel population **will vary according to the age-profile and underlying medical comorbidities of our workforce**.

GENERAL ORGANIZATIONAL PREPAREDNESS

GENERAL BUSINESS CONTINUITY AND COVID-19 PLANNING IN THE WORKPLACE

Effective **business continuity planning (BCP)** is critical during the COVID-19 pandemic to ensure that the organization can function successfully with a minimal number of in-house personnel. Active reduction of the number of UN personnel on site as a means of physical distancing and reducing exposure to others is a potential strategy that the UN can implement to lower the risk of personnel exposure to sources of infection and should be in implementation phase during a pandemic. Flexible or alternative working arrangements should be strongly considered. Possible reduction in productivity should be accepted by all organizational levels and stakeholders and transparently communicated in time.

More information for COVID-19 preparedness in the workplace can be found at <https://www.un.org/en/coronavirus/reference-documents-administrators-and-managers>. Resources here include comprehensive preparedness checklists to help you identify any gaps in preparedness, detailed guides to help you write your contingents plan, how to identify and manage suspect cases that occur in your workplace, a sample tabletop exercise scenario to guide on how to identify and manage suspect cases that occur in your workplace, and clear instructions on how to report any cases identified.

PANDEMIC ACTION PLAN: 3-PHASE RESPONSE ACTIVATION SYSTEM

In addition to the above tools for UN offices, a **“3-Phase Response Activation System”**, available at https://hr.un.org/sites/hr.un.org/files/Coronavirus_ThreePhases_FINAL_0.pdf is **used to manage and coordinate health emergency responses in the UN system, including for COVID-19**. This system can be activated in response to disease outbreak and other public health emergencies.

² WHO Scientific Brief: Smoking and COVID-19. Available at: <https://www.who.int/news-room/commentaries/detail/smoking-and-covid-19>
Accessed 31 May 2020

All UN offices should develop or update their outbreak contingency plans to include the recommendations and corresponding actions suggested in these three phases. As per standard practice, all contingency plans should take into account local health authorities' and WHO office's advice and protocols.

The 3 phases are:

PHASE 1: READINESS MODE

In this mode, there is a specific outbreak of concern globally. All duty stations should get ready that such an outbreak may have an impact on their daily operations. It is therefore necessary to prepare, review and continuously update medical response plans and strategies, and starts preparedness actions as indicated, including awareness, disease-specific education and targeted communications. During this mode, duty stations should have an outbreak / health emergency contingency plan in place for the duty station and test it regularly. In this mode, all duty stations should be ready to ramp up quickly to the next phase of preparedness.

PHASE 2: ACTIVE RISK REDUCTION MODE

In this mode, implemented when the outbreak has reached the duty station with some community spread, implementation of active measures to mitigate risk in the workplace is required. Measures include management of meetings and reduction of staffing footprint, with a specific focus on vulnerable personnel such as immunocompromised staff or those with comorbidities. The workplace remains open, but measures are put in place to reduce risk such as implementation of social distancing and other activities.

PHASE 3: EMERGENCY MODE

In this mode, full implementation of risk management and medical response measures is required due to the fact that there are a large number of cases in the host country and widespread community spread.

The medical staff and/or Country Team at each duty station, in coordination with the UN Medical Directors, can make a decision on which mode is appropriate to their local circumstances, taking into account the unfolding health emergency situation in their region/country.

For the full action plan corresponding to each of the above 3 phases, please see https://hr.un.org/sites/hr.un.org/files/Coronavirus_ThreePhases_FINAL_0.pdf

UNITED NATIONS MEDICAL DIRECTORS RISK MITIGATION PLAN

From time to time, **the UN Medical Directors will issue, a comprehensive risk mitigation plan to guide the UN system in their response.** These are occupational health recommendations provided by the UN Medical Directors to all UN Organizations and apply to all UN personnel to reduce the risk of UN personnel acquiring a disease of high impact or to mitigate its impact. The recommendations are allocated according to the specific "Risk Category" that UN personnel belong to.

The **UN Medical Directors Risk Mitigation Plan for COVID-19** is available at https://www.un.org/sites/un2.un.org/files/coronavirus_unmdrmp.pdf All duty stations need to take into account the local host country/authorities' guidance and regulations when implementing these

recommendations to ensure alignment with local guidance. The following sections are based on this risk mitigation plan and elaborate further on them.

COVID-19 PREVENTION MEASURES

GENERAL PREVENTION TIPS

The following **general prevention measures** are recommended for ALL UN Personnel to reduce the transmission of infection. They should be shared frequently with UN personnel:

- Wash your hands frequently with an alcohol-based hand rub (20-30 seconds), or with soap and water (40-60 seconds). Chlorine solutions for hand hygiene are not recommended.
- Maintain at least 1-2 meters distance between yourself and anyone who is coughing or sneezing. Avoid crowds (especially in poorly ventilated spaces) if possible.
- Practice social/physical distancing of maintaining at least 1-2 meters from all others whenever possible even if neither you nor they have respiratory symptoms.
- Avoid touching eyes, nose and mouth
- Practice respiratory hygiene. This means covering you mouth and nose with your bent elbow or tissue when you cough or sneeze, then dispose of the used tissue immediately, and perform hand hygiene after that.
- Stay home if you feel unwell. If you have fever, cough and difficulty breathing, seek medical attention and call in advance. Follow the directions of your local health authority.
- Consider wearing a cloth mask depending on local authorities, types of interactions that might occur with others particularly where 1-2 meters distances cannot be maintained. If you have risk factors for severe illness then wear a medical mask (also known as a procedure mask or a surgical mask). See section below "In a Community Setting" for more information.

MEETINGS & TRAVEL

As is standard practice, all UN managers and/or UN personnel should undertake a **risk assessment to evaluate the criticality of the proposed travel or meeting** balanced against the risks to the traveller/meeting participant for any travel to, or meetings in, areas experiencing local transmission of COVID-19. More information for planning for meetings and travel can be found at <https://www.un.org/en/coronavirus/reference-documents-administrators-and-managers>. Resources here include guidance for UN meeting organisers, sample information package for meeting participants, guidance on mass gatherings in the context of the current pandemic:

On Travel and Transportation: Crowded travel settings may increase the risk of exposure to COVID-19, especially for those at risk for severe COVID-19 are age >60 (increasing with age), hypertension, diabetes, cardiovascular disease, chronic lung disease, cerebrovascular disease, chronic kidney diseases, immunosuppression, cancer and smoking. If you must travel, you should maintain physical distance of 1-2 meters with others and exercise all COVID-19 precautions including washing your hands frequently, avoid touching common surfaces or objects (e.g. door handles, stair handrails, lift buttons), covering your mouth and nose with a tissue when you cough or sneeze, avoid contact with people who are sick and stay home or in your hotel when ill yourself. Non-medical masks (also known as cloth or fabric masks) or medical masks (if risk factors are present) can be worn during travel in common closed vehicles (plane, train, buses) and closed waiting areas where the 1-2 meters distancing cannot be maintained.

IN A COMMUNITY SETTING

Cloth masks are not considered appropriate PPE for healthcare workers; however, in the community they can be considered where 1-2 meters physical/social distancing is not possible. The use of a mask alone is insufficient to provide an adequate level of protection and other measures should also be adopted in addition to masking. For more information including on recommendations on materials for cloth masks please see: [https://www.who.int/publications/i/item/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-\(2019-ncov\)-outbreak](https://www.who.int/publications/i/item/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak) .

Individuals with risk factors should wear medical masks rather than cloth masks when in the community.

Individuals who are caring for patients with suspect or confirmed patients at home, however, should wear a medical mask while in the same room as that patient. The sick individual should also wear a medical mask (as source control) for as much as tolerated. For more information see [https://www.who.int/publications/i/item/home-care-for-patients-with-suspected-novel-coronavirus-\(ncov\)-infection-presenting-with-mild-symptoms-and-management-of-contacts](https://www.who.int/publications/i/item/home-care-for-patients-with-suspected-novel-coronavirus-(ncov)-infection-presenting-with-mild-symptoms-and-management-of-contacts)

IN CONGREGATE SETTINGS

Physical distancing involves increasing distance between individuals in settings where people commonly come into close contact with one another. To reduce spread of COVID-19, and to ensure the safety of those in congregate settings (e.g. contingent members in a barrack), guidance for bed placement in such settings is available at https://www.un.org/sites/un2.un.org/files/coronavirus_bedplacement.pdf

ISOLATION AND QUARANTINE

ISOLATION

Any individuals who show symptoms of COVID-19 (fever, cough, shortness of breath etc.) must immediately put a mask on and be put into medical isolation, and prevented from interacting from other non-symptomatic individuals, including staying away from the workplace. This is known as “**isolation**” (i.e. an individual who has symptoms and who stays at home until they are well). Such individual should remain in their bedroom and the door should remain closed. More information on home isolation is available at: [https://www.who.int/publications/i/item/home-care-for-patients-with-suspected-novel-coronavirus-\(ncov\)-infection-presenting-with-mild-symptoms-and-management-of-contacts](https://www.who.int/publications/i/item/home-care-for-patients-with-suspected-novel-coronavirus-(ncov)-infection-presenting-with-mild-symptoms-and-management-of-contacts)

For patients with mild or moderate illness who were under **home isolation**, isolation can be discontinued for symptomatic patients 10 days after symptom onset plus at least 3 days without symptoms (without fever and respiratory symptoms). For asymptomatic patients, isolation can be stopped 10 days after positive test per WHO guidance (<https://www.who.int/publications-detail/clinical-management-of-covid-19>). Test based strategies of 2 negative tests taken at least 24 hours apart is another alternative strategy that can be used to discontinue isolation. For more information please see: <https://www.who.int/publications/i/item/criteria-for-releasing-covid-19-patients-from-isolation>. In all cases, considerations should be also given to local health directives on when to discontinue isolation.

More detailed interim recommendations on home management of patients with COVID-19 can be

found on the WHO³ and CDC⁴ websites.

QUARANTINE

Individuals who fit the WHO definition⁵ of a “contact” should monitor themselves development of signs and symptoms consistent with COVID-19. They should undergo a 14-day “**quarantine**” where by an individual who is well with no symptoms but may have been exposed to COVID-19 stays at home to monitor for symptoms. If symptoms develop, the contact who is in quarantine should immediately self-isolate and call his or her health provider for a medical evaluation. More information is available at: [https://www.who.int/publications/i/item/considerations-for-quarantine-of-individuals-in-the-context-of-containment-for-coronavirus-disease-\(covid-19\)](https://www.who.int/publications/i/item/considerations-for-quarantine-of-individuals-in-the-context-of-containment-for-coronavirus-disease-(covid-19))

Further guidance on contact tracing and quarantine are as follows:

- WHO guidance on contact tracing: <https://www.who.int/publications-detail/contact-tracing-in-the-context-of-covid-19>
- DHMOSH guidance on contact tracing: https://www.un.org/sites/un2.un.org/files/coronavirus_contacttracingguide_2020-05-22_final.pdf
- DHMOSH guidance on setting up of quarantine for identified contacts: https://www.un.org/sites/un2.un.org/files/guidance_on_quarantine_of_non-sick_un_personnel.pdf
- DHMOSH guidance on setting up routine quarantine for uniformed personnel / contingents: https://www.un.org/sites/un2.un.org/files/coronavirus_pre_and_postdeploymentquarantine.pdf

COHORTS THAT SHOULD NOT MIX

The different groups that must be segregated from each other in any UN duty station is as follows:



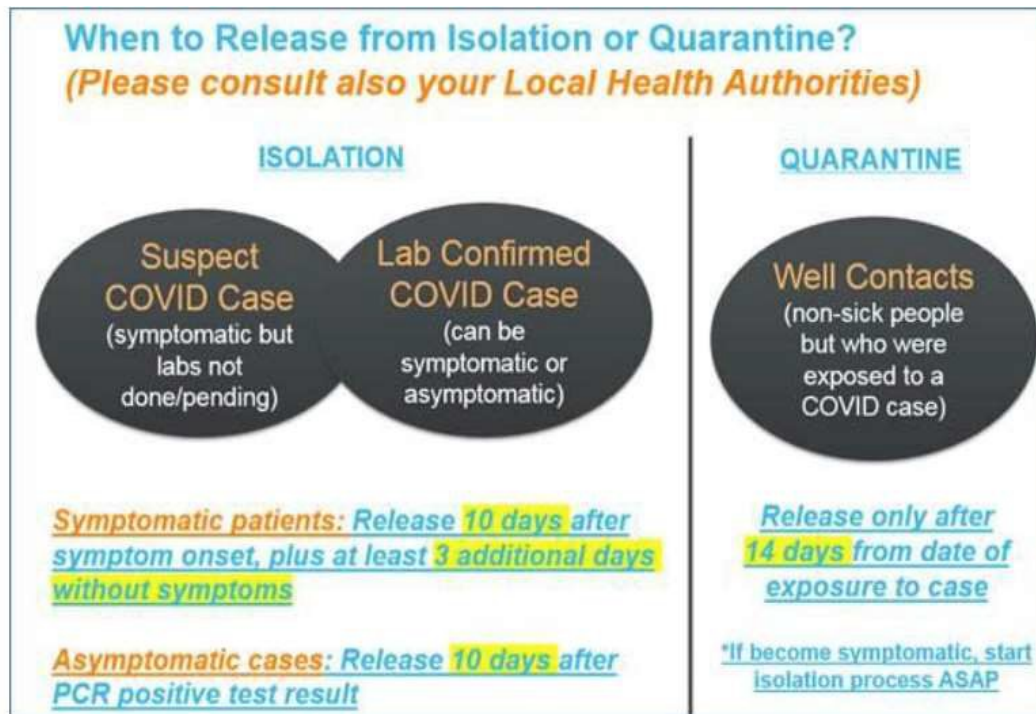
³ [https://www.who.int/publications-detail/home-care-for-patients-with-suspected-novel-coronavirus-\(ncov\)-infection-presenting-with-mild-symptoms-and-management-of-contacts/](https://www.who.int/publications-detail/home-care-for-patients-with-suspected-novel-coronavirus-(ncov)-infection-presenting-with-mild-symptoms-and-management-of-contacts/)
<https://www.who.int/publications/i/item/clinical-management-of-covid-19>

⁴ <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-prevent-spread.html>

⁵ <https://www.who.int/publications/i/item/who-2019-nCoV-surveillanceguidance-2020.7>

WHEN TO DISCONTINUE ISOLATION AND QUARANTINE

The figure below shows when isolation and quarantine can be stopped and individuals released.



IN A HEALTH CARE SETTING

WHO has developed a practical manual on how to set up and manage a severe acute respiratory infection (SARI) treatment centre and a SARI screening facility in health care facilities. Please see document here. <https://www.who.int/publications-detail/severe-acute-respiratory-infections-treatment-centre> The following section however, is focused solely on how to establish a COVID-19 screening facility in your health-care facility/ies.

SCREENING AND TRIAGE STATION

This section provides you general principles on screening and triage of suspect COVID-19 patients. Detailed technical information on how to configure your triage area is available at: <https://www.paho.org/en/documents/technical-recommendations-configuration-triage-area-patients-respiratory-symptoms> Specific information on management of suspect patients are available at <https://www.who.int/publications/i/item/clinical-management-of-covid-19>

Screening patients before they come to your health facility can help identify patients who require additional infection control precautions. This should be preferably done by phone before the patient presents in person to your facility.

A **24/7 COVID-19 telephone hotline** should be set up to refer patients to the appropriate destination for clinical assessment and/or testing as per local protocol. This number should be disseminated to all UN personnel for this purpose.

For individuals that physically come to the UN health facility, you should set up a **triage station at the entrance** of your health facility, i.e. outside of your waiting area, so as to screen patients. This enables you to immediately **segregate patients with COVID-19 symptoms from the non-symptomatic patients,**

and limits potential spreading infection throughout the health facility. Signage should be displayed at this station instructing patients with symptoms to inform reception staff immediately on their arrival.

UN personnel involved in triage or screening at the points of entry should **wear a medical mask (or N-95 mask if available/preferred) when screening patients** at the triage station if they are closer than 1-2 meters from the patients. A plexiglass window/physical barrier may be used depending on the personnel's role. Ensure to have alcohol-based hand rub (ABHR) or soap and water handwashing stations readily available at this station.

Any individual that fits the WHO case definition⁶ of a suspect case should be immediately advised to wear a medical mask, and then triaged to a separate waiting and assessment area immediately.

No UN personnel should be allowed to enter the UN health facility without having first passed the triage area. A sample layout of the triage area is available at <https://www.paho.org/en/documents/technical-recommendations-configuration-triage-area-patients-respiratory-symptoms>

WAITING AREA

Within your waiting area, set up a **dedicated, well-ventilated and separate waiting area for COVID-19 suspect cases**. This separate area should be designated at least 1-2 meters away from your regular waiting area. In your waiting area/s, post information like posters and flyers, reminding patients and visitors to practice good respiratory and hand hygiene. Patients should be instructed to stay in this waiting area and not visit other parts of your facility.

INFECTION PREVENTION AND CONTROL IN HEALTH CARE SETTINGS

Infection control to limit transmission is an essential component of care in suspect/confirmed cases. All suspect cases should be advised to wear a surgical mask to contain their respiratory secretions prior to seeking medical attention. All UN health care workers should be reminded of **WHO's "5 Moments for Hand Hygiene"**:



SINGLE ROOM

Where possible, place any suspect/confirmed COVID-19 patients in a single room with a closed door and dedicated bathroom. In an escalating situation however, there may be lack of single

⁶ <https://www.who.int/publications/item/who-2019-nCoV-surveillanceguidance-2020.7>

rooms/isolation facilities. Where single/isolation rooms are in short supply, and cohorting is not possible, prioritize patients who have high-risk conditions, as well as those with excessive cough and sputum production for single/isolation room placement. Note that if resources allow, an airborne infection isolation room (i.e., a single-patient negative pressure room) should ideally be made available for patients undergoing aerosol-generating procedures⁷.

COHORTING PATIENTS

If a single/isolation room is not available, you can **cohort lab-confirmed COVID-19 with other lab-confirmed cases together. Suspect cases should be kept as a separate cohort.** A 1 - 2 meters distance should be maintained at all times between all patients in an isolation facility. Use privacy curtains between beds to minimize opportunities for close contact. Where possible, a designated self-contained area should be used for the treatment and care of patients with COVID-19.

This area should:

- Include a reception area that is separate from the rest of the health facility and should, if feasible, have a separate entrance/exit from the rest of the building;
- Not be used as a hallway by other patients, visitors, or staff, including patients being transferred, staff going for meal breaks, and staff and visitors entering and exiting the building;
- Be separated from non-segregated areas by closed doors; and
- Have signage displaying warning of the segregated area to control entry.

Where your health facility can no longer manage patients with mild/moderate disease, patients who are not at high risk for severe disease (i.e. under 60 years of age, no co-morbid diseases) can be isolated in community facilities (e.g. building, tent, temporary structures) with access to rapid health advice (i.e. via dedicated hotline, or telemedicine), or even at home. If the patient develops symptoms that may correspond to severe disease or complications, ensure rapid referral to hospital.

Depending on local testing strategy and capacity, mild and moderate patients may not be tested, and simply advised to self-isolate in either a cohorted community facility or at home.

WHO provides more operational information on COVID-19 case management in health facilities vs. community at https://apps.who.int/iris/bitstream/handle/10665/331492/WHO-2019-nCoV-HCF_operations-2020.1-eng.pdf

OTHER IPC CONSIDERATIONS

Assigning a **dedicated team of staff to care for patients in isolation/cohort rooms/areas** is an additional infection control measure. This should be implemented whenever there are sufficient levels of staff available (so as not to have a negative impact on non-affected patients' care). Ensure that UN health care workers have a rotational shift to ensure proper rest and recovery time.

Limit the movement of patients within the health facility to reduce potential infection throughout the health facility. If the patient needs to be moved ensure they are wearing a medical mask as source control, plan the move ahead, and ensure all staff and visitors who come into direct contact with the patient should wear appropriate PPE required for the care of a COVID-19 patient.

⁷ Aerosol-generating procedures include tracheal intubation, non-invasive ventilation, tracheotomy, CPR, manual ventilation before intubation, upper endoscopy, and bronchoscopy. Nasopharyngeal or oropharyngeal specimen collection is not considered an aerosol-generating procedure.

Perform regular environmental cleaning and disinfection. Maintain good ventilation, if possible, open doors and windows. Limit the number of visits per patient. All visitors should wear the required PPE and their visits should be recorded.

PERSONAL PROTECTIVE EQUIPMENT (PPE) IN HEALTH CARE SETTINGS

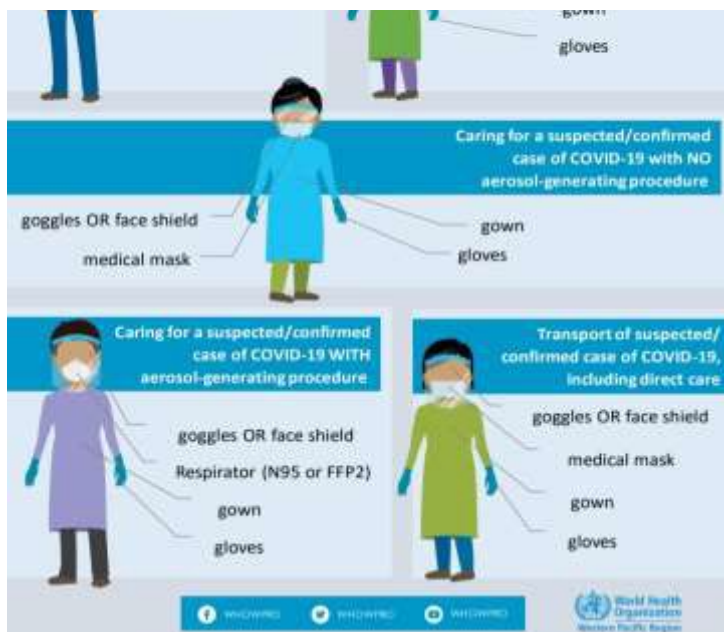
With regards to **PPE for healthcare workers** caring for a suspect/confirmed COVID-19 case, the WHO recommends⁸ standard, contact, and droplet precautions (i.e. gown, gloves, and mask) with eye (e.g. goggles) or face protection. Note that boots and coverall suits are not required.

WHO recommends that the addition of airborne precautions (i.e. using a particular respirator such as an N-95 – **do a seal check with each use!**) is warranted during aerosol-generating procedures.

Due to the desire for a more conservative approach, the UN Medical Directors is recommending that airborne precautions (i.e. use of an N-95 mask) should be implemented at all times when caring for a suspect/confirmed case. All healthcare staff who wears an N-95 mask should be fit-tested to ensure an adequate seal/fit according to the manufacturer's guidance. Ensure to conduct a seal check (according to the manufacturers' guidance) every time an N-95 is donned to ensure an adequate seal has been achieved.

PPE should be changed between use and for each different patient. If utilizing single-use PPE, dispose in a waste bin with a lid and wash your hands thoroughly. Anything single-use should not be reused or sterilized.

For a **WHO summary⁹ of the minimum needed PPE by health care activities** conducted, see figure below.



⁸ [https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-\(ncov\)-infection-is-suspected-20200125](https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125)

⁹ <https://iris.wpro.who.int/bitstream/handle/10665.1/14482/COVID-19-022020.pdf>

A detailed table with WHO recommendations on type of PPE to be used for which activity is also available.¹⁰ UN offices should review WHO's PPE recommendations¹¹ and determine the amount of PPE required by your office/duty station.

ENVIRONMENTAL CLEANING AND DISINFECTION

It is unknown how long SARS-CoV-2 can persist on surfaces; other coronaviruses have been tested and may survive on inanimate surfaces for up to six to nine days without disinfection. To help reduce the spread of COVID-19 virus, environmental infection control procedures should also be implemented. According to the WHO, **routine cleaning and disinfection procedures are appropriate for COVID-19 virus**¹². Linens and bedding should also be cleaned/washed regularly.

In a health care setting, patient isolation rooms, cohort areas and clinical rooms must be cleaned and disinfected regularly. Clinical rooms should also be cleaned and disinfected after clinical sessions for patients with suspected/known pandemic COVID-19.

An increased frequency of cleaning and disinfection is important for "frequently touched" surfaces should be cleaned at least twice daily and when known to be contaminated with secretions, excretions or body fluids.

Domestic/cleaning staff performing environmental cleaning and disinfection should be allocated to specific area(s) and not be moved between COVID-19 and non-COVID19 care areas; and be trained in which personal protective equipment (PPE) to use and the correct methods of wearing, removing and disposing of PPE.

Several practices are **not recommended** including: spraying or fogging (also known as fumigation or misting) of indoor spaces, spraying or fumigation of outdoor spaces (e.g. streets, sidewalks, walkways or marketplaces) and spraying individuals with disinfectants (e.g. tunnel, cabinet or chamber).

Please see WHO guidance on full details of Environmental Cleaning and Disinfection at: <https://www.who.int/publications-detail/cleaning-and-disinfection-of-environmental-surfaces-in-the-context-of-covid-19> including recommendations for frequency of cleaning and disinfection.

LAB TESTING

The decision to test a suspect case should be made in conjunction with the local WHO office and the local health authorities' and in accordance with the local health authorities' case criteria for testing.

In general, WHO recommends that all suspected COVID-19 cases be tested in accordance with WHO case definitions available at: <https://www.who.int/publications/i/item/who-2019-nCoV-surveillanceguidance-2020.7>

More information on testing strategies as recommended by WHO is available at: https://apps.who.int/iris/bitstream/handle/10665/331509/WHO-COVID-19-lab_testing-2020.1-eng.pdf

More information on testing strategies for UN personnel including uniformed personnel is available at

¹⁰ https://apps.who.int/iris/bitstream/handle/10665/331215/WHO-2019-nCoV-IPCPPE_use-2020.1-eng.pdf

¹¹ [https://www.who.int/publications/i/item/rational-use-of-personal-protective-equipment-for-coronavirus-disease-\(covid-19\)-and-considerations-during-severe-shortages](https://www.who.int/publications/i/item/rational-use-of-personal-protective-equipment-for-coronavirus-disease-(covid-19)-and-considerations-during-severe-shortages)

¹² <https://www.who.int/publications-detail/severe-acute-respiratory-infections-treatment-centre>

https://www.un.org/sites/un2.un.org/files/coronavirus_testingrecsforunpersonnelandcontingents.pdf

In general, routine testing of asymptomatic contacts or cases is discouraged unless being done so in the context of surveillance or research or if directed by local authorities/protocols and/or resources exist to do this testing. In the case of asymptomatic testing in contacts this should not be used as a means to reduce quarantine length as the test only represents one point in time and if within the incubation period and individual could become symptomatic and/or test positive at any point during this period.

CLINICAL MANAGEMENT

HOME-BASED CARE

All UN personnel should be made aware of the general COVID-19 precaution measures to take. Where inpatient facilities do not exist for all COVID-19 patients, **for mild to moderate cases of COVID-19, such individuals should stay at home and try to separate themselves** from other people and animals in the household. They should wear a medical mask when in the same room (or vehicle) as other people and when presenting to health care settings. For more information on home-based care, see [https://www.who.int/publications/i/item/home-care-for-patients-with-suspected-novel-coronavirus-\(ncov\)-infection-presenting-with-mild-symptoms-and-management-of-contacts](https://www.who.int/publications/i/item/home-care-for-patients-with-suspected-novel-coronavirus-(ncov)-infection-presenting-with-mild-symptoms-and-management-of-contacts)

Cleaning and disinfection of frequently touched surfaces is also important¹³. WHO guidance on home care for patients with suspected COVID-19 who present with mild symptoms and when managing their contacts is available¹⁴.

Isolation can be discontinued for symptomatic patients 10 days after symptom onset plus at least 3 days without symptoms (without fever and respiratory symptoms). For asymptomatic patients isolation can be stopped 10 days after positive test¹⁵.

CARE IN UN HEALTH CARE FACILITY (WHERE AVAILABLE)

Further information on how to identify a suspect case, clinical manage mild, moderate and severe cases are available at <https://www.who.int/publications-detail/clinical-management-of-covid-19>

For a practical manual on how to set up and manage a SARI treatment center and SARI screening facility in health care facilities see WHO guidance: <https://www.who.int/publications-detail/severe-acute-respiratory-infections-treatment-centre>

TRANSPORT BY AMBULANCE

A dedicated ambulance should be made available for transport of COVID-19 cases. At least two stand-by drivers should be made available.

Within the ambulances, patient segregation can be achieved by:

¹³ WHO Guideline on Cleaning and disinfection of environmental surfaces in the context of COVID-19. Available at: <https://www.who.int/publications-detail/cleaning-and-disinfection-of-environmental-surfaces-in-the-context-of-covid-19>
Accessed 31 May 2020.

¹⁴ [https://www.who.int/publications/i/item/home-care-for-patients-with-suspected-novel-coronavirus-\(ncov\)-infection-presenting-with-mild-symptoms-and-management-of-contacts](https://www.who.int/publications/i/item/home-care-for-patients-with-suspected-novel-coronavirus-(ncov)-infection-presenting-with-mild-symptoms-and-management-of-contacts)

¹⁵ <https://www.who.int/publications-detail/clinical-management-of-covid-19>

- Designating an ambulance/s for transfer of patients with suspected/confirmed COVID-19 for the duration of each shift;
- Transporting coughing and sneezing patients on their own whenever possible. However, if pressure upon the transport service occurs, two patients with symptoms of COVID-19 may be transferred together and should wear a surgical mask each.
- Ambulance staff should wear a medical mask if they will be within 1-2 meters of the patient.
- All ambulance staff should be trained on how to put on and take off additional PPE according to the specific situation/interaction with the patient. This may include combination of PPE such as medical mask, particulate respiratory, gown, eye protection (goggles/face shield) and gloves depending on if they have direct contact with the patient or not. They should also be knowledgeable about when and how to perform hand hygiene.

More information on Emergency Medical Service (EMS) preparedness and transport of patients is available at <https://iris.paho.org/handle/10665.2/52137>

LOCAL MEDICAL INFRASTRUCTURE AND MEDEVAC

UN personnel should obtain medical care and advice through the standard local medical infrastructure. At locations where there is evidence of ongoing transmission of COVID-19 UN personnel and their dependents should first check with their treating medical provider or UN medical advisor / UN examining physician on the status of the local health facilities as well as the advisability on their use. Those employees and dependents concerned that they may have contracted COVID-19 should contact their treating provider for care and advice. If the diagnosis is confirmed and if hospitalization is required the COVID-19 entity focal point of the patient's employer should be notified who will inform the COVID-19 coordinator of the patient's status in the event that medical evacuation is required.

Each country team, in consultation with the appropriate government offices, should have already identified the most appropriate local health care facilities to treat UN personnel and dependents in case of a COVID-19 case/outbreak in your duty stations in light of the COVID-19 pandemic. Information including what to do if they or their family members have symptoms of COVID-19, which healthcare facilities to go to, whom to notify, etc. should be clearly communicated to all UN personnel. As the duration of the COVID-19 pandemic is unknown it is important that this information is reiterated during the course of the pandemic and whenever new personnel join the office.

Each duty station should develop a set of standard operating procedures for medical evacuation of severe/critical covid-19 cases in the eventuality that local medical facilities can no longer provide intensive care. Guidance on how to develop COVID-19 medevac SOPs can be found at https://www.un.org/sites/un2.un.org/files/covid-19_country_level_framework_sop_.pdf.

The UN Model of Care document should also be followed to understand thresholds in order to escalate care and activate MEDVAC appropriately. Available at: https://www.un.org/sites/un2.un.org/files/un_model_of_care_checklist_and_matrix.pdf

Additional information on the COVID-19 medevac framework can be found at https://www.un.org/sites/un2.un.org/files/covid-19_medevac_framework_document_160720.pdfhttp://www.un.org/sites/un2.un.org/files/ppt_for_covid-19_coords_v1.pdf

Further information on medical evacuation for UN personnel is available at <https://www.un.org/en/coronavirus/reference-documents-administrators-and-managers>

MANAGEMENT OF THE HUMAN REMAINS

Handling of deceased bodies infected by COVID-19 is different from that of pathogens causing viral haemorrhagic fever e.g. Ebola virus disease. Until more is known about COVID-19 the WHO recommends those who are managing human remains to use standard and contact and droplet precautions.

Where the deceased was known or suspected to have been infected with COVID-19, the body does not need to be packed in a body bag unless there is excessive leakage of bodily fluids. If body bags are used see: <https://www.who.int/publications-detail/severe-acute-respiratory-infections-treatment-centre> for body bag procurement specifications. There is no need to disinfect the body before transfer to the mortuary area and no special transport equipment or vehicle is required.

In order to avoid aerosol production it is not recommended to spray the body. Embalming is not recommended to avoid excessive manipulation of the body.

Details on autopsy (if performed) and engineering and environmental controls during autopsy are available in the WHO document referenced below.

Cleaning and disinfection procedures should be followed the same as for a room that had a live COVID-19 patient.

For more information, see

- https://apps.who.int/iris/bitstream/handle/10665/112656/9789241507134_eng.pdf?sequence=1
- [https://www.who.int/publications/i/item/infection-prevention-and-control-during-health-care-when-novel-coronavirus-\(ncov\)-infection-is-suspected-20200125](https://www.who.int/publications/i/item/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125)
- <https://www.who.int/publications/i/item/infection-prevention-and-control-for-the-safe-management-of-a-dead-body-in-the-context-of-covid-19-interim-guidance> for more information.

Information on ICD mortality codes for COVID-19 deaths is available here:

<https://www.who.int/publications/i/item/WHO-2019-nCoV-mortality-reporting-2020-1>

CASE REPORTING REQUIREMENTS

Reporting of cases should be to your respective medical directors of your entity. If you do not have one, then follow the reporting requirements here:

https://www.un.org/sites/un2.un.org/files/coronavirus_casereporting_requirements.pdf

SPECIAL SITUATIONS

PREGNANT AND BREASTFEEDING WOMEN

Limited information is available regarding COVID-19 during pregnancy. Intrauterine or perinatal transmission has not been clearly identified. A recent US CDC report suggests that pregnant women may be at increased risk for severe COVID-19 illness though ongoing research is needed to fully

understand the risk pregnancy poses if any. See:
<https://www.cdc.gov/mmwr/volumes/69/wr/mm6925a1.htm>

It is unknown whether the virus can be transmitted through breast milk. However, droplet transmission could occur through close contact during breastfeeding. The WHO recommends that mothers with suspected or confirmed COVID-19 should be encouraged to initiate and continue breastfeeding. In addition they should be counselled that the benefits of breastfeeding substantially outweigh the potential risks. Mothers with confirmed COVID-19 or symptomatic mothers with suspected COVID-19 should take precautions to prevent transmission to the infant during breastfeeding (including strict hand hygiene and use of a medical mask). Women who choose not to breastfeed must take similar precautions to prevent transmission through close contact when formula or expressed breast milk is used. For more information please see: <https://www.who.int/publications/i/item/10665332639>

PSYCHOSOCIAL SUPPORT

The Novel Coronavirus (COVID-19) Psychosocial Contingency Plan Preparation Guidelines for Staff/Stress Counsellors in the field is available¹⁶. More information on counselling services are available at <https://www.un.org/en/coronavirus/reference-documents-administrators-and-managers>

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¹⁶ https://hr.un.org/sites/hr.un.org/files/COVID-19%20Psychosocial%20Contingency%20Planning%20Guidelines%2CCISMU%2CUNDSS-16%20Feb%202020_0.pdf