CORONAVIRUS-19 (COVID-19) Prevention, Treatment & Protecting Yourself and Others

A Self-Learning Training Curriculum for Community Health Workers & Providers

March 2020

MedicinesforHumanity

Reaching The World's Most Vulnerable Children

www.medicinesforhumanity.org

HOW TO USE THIS TRAINING CURRICULUM

This curriculum is intended to train health providers and Community Health Workers on COVID-19 (as of March 2020) transmission, symptoms, treatment and communication to the public. Given the restrictions on movement and interaction in many countries to prevent the spread of COVID-19, this training curriculum is designed to be a self-guided tool, where individuals can learn on their own. It can also be used by a facilitator with a group of trainees.

Each module consists of:

1. Introduction
2. Learning Objectives
3. Lessons and Content
4. Summary

Module Content for Community Health Workers and Clinical Providers

Module 1: General Information about Coronavirus-19 (COVID-19)

Module 2: Actions to Prevent the Spread of COVID-19

Module 3: What to Do If You Get Sick? Treatment Recommendations for COVID-19

Module 4: Community Education and Support: A Guide for Community Health Workers

Modules Specific for Clinical Providers

Module 5: Preparation for Community Health Clinics

Module 6: Management of Severe Acute Respiratory Infection when Novel Coronavirus (COVID-19) Infection is Suspected

Module 7: Hand Hygiene: Why, How & When

Module 8: Online Resources for COVID

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MODULE 1: GENERAL INFORMATION ABOUT CORONAVIRUS-19 (COVID-19)

Introduction

The information about COVID-19 continues to evolve as we learn more about the disease and share various experiences globally. This overview is based on guidelines and knowledge developed through March 20, 2020.

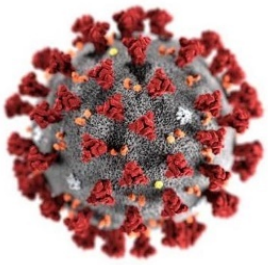
Learning Objectives

After this module, you should be able to:

1. Know what COVID-19 is and how it impacts one's health
2. Understand how COVID-19 is transmitted
3. Identify the 3 common symptoms of COVID-19

Lesson & Content

What is COVID-19?



- It is a highly contagious respiratory disease
- People of all ages can get sick
- Majority of cases are mild (approximately 80%)
- People with cardiovascular disease, respiratory conditions or diabetes, or are 60 years or older are at much greater risk of getting sick and experiencing more severe symptoms.
    - In severe cases, COVID-19 can cause pneumonia, severe acute respiratory syndrome.
    - The disease can lead to death, but this does not happen often.
    - It is especially important that people in these groups follow ALL prevention and treatment guidelines
- Coronaviruses are a large family of viruses found in both animals and humans. Some infect people and are known to cause illness ranging from a cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syn-drome (SARS). (use local names for these diseases)
- The new coronavirus and its disease (COVID-19) is a new strain of coronavirus first found in Wuhan, China in December 2019.
- There are still some things we don't know about the virus, but researchers are working hard to find out how to prevent and cure it.

How does COVID-19 spread?

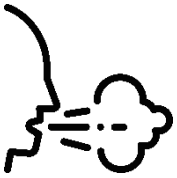
- COVID-19 is passed by respiratory droplets that move from a sick person to others by:
    - Sneezing and coughing
    - Physical touch such as greetings like shaking hands
    - Touching surfaces/objects contaminated with the germs and then touching your eyes, nose or mouth before washing hands.

- Hands touch many surfaces and can pick up viruses. Once contaminated, hands can transfer the virus to your eyes, nose or mouth. From there the virus can enter the body and make you sick. It is best to avoid physical contact with people or surfaces that may have the virus.

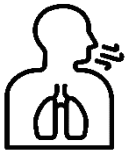
- Covid-19 can spread in any region, regardless of weather.

What are Symptoms of COVID-19?

FEVER



COUGH



SHORTNESS OF BREATH

- Symptoms can take between 2 and 14 days to appear. Typically, symptoms appear 4 to 5 days after exposure.
- A person is contagious 2-3 days after exposure, even if they do not show any symptoms. People are also contagious when they have symptoms.
- Almost everyone with COVID-19 gets a fever. If possible, check your temperature twice a day if you are experiencing other symptoms.

Common symptoms

Health Condition	Common Symptoms
Mild	Fever (above 100.4°F / 38°C) Cough Sore throat Muscle aches/fatigue
Severe	Dehydration Co-infections (i.e. bacterial infections) Difficulty breathing (i.e. shortness of breath) Pneumonia Kidney failure Respiratory failure Death

Summary

Understanding what COVID-19 is, how it is transmitted and what the common symptoms are will help you to better serve your community. The first step is knowing, the second is taking action! There an often be confusion and rumours about the disease. People will get a lot of different information from different sources. Some of these sources may give conflicting information. Help others to know the right information.

MODULE 2: ACTIONS TO PREVENT SPREAD OF COVID-19

Introduction

It is important to prevent the spread of COVID-19 as it is very contagious and dangerous to certain people like those with poor immune systems, underlying conditions and people over the age of 60 years. We all have a role to play in preventing the transmission of COVID-19 in our communities. Even if we are healthy, we must each do our part to help stop the spread and save the lives of other people in our community.

Learning Objectives

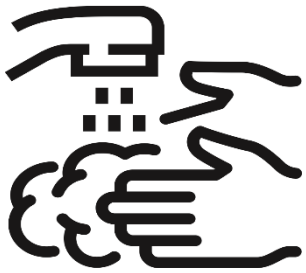
After this module, you should be able to:

1. Practice protective measures to prevent the spread of COVID-19
2. Educate people around you to take the same precautions
3. Understand the importance of hand washing in preventing transmission

Lesson & Content

What Can I Do to Avoid Getting Sick and Prevent Transmission?

1. Wash your hands regularly with soap and running water or alcohol-based rub for at least 20 seconds. Wash your hands:



- After coughing or sneezing/ touching used tissues
- Touching shared/ common surfaces or objects
- Before touching face (mouth, nose or eyes)
- When caring for the sick
- Before and after breastfeeding or touching a baby
- Before, during and after preparing food
- Before eating
- After toilet use
- After handling animals or animal waste
- After handling garbage
- After changing diapers
- Before and after treating a cut or wound

2. When coughing or sneezing cover your mouth and nose with a bent elbow or tissue. Throw tissue in a closed bin immediately after use and wash your hands.

3. **Distance yourself from other people by 1 metre. This is called social distancing. (put in image)**

4. **Avoid physical greetings and contact with others. Instead of shaking hands, wave, nod or bow.**

5. **Do not touch your eyes, nose or mouth. We touch our face 23 times each hour with our hands. Hands touch many surfaces and can pick up viruses. Once contaminated, hands can transfer the virus to your eyes, nose or mouth. From there the virus can enter the body and make you sick.**

6. **Avoid spitting in public.**

7. **Do not attend public gatherings or events. Avoid crowded spaces.**
   - Limit time or do not go to church services, family gatherings, markets, stores, banks. If you must go out, limit your time in these spaces and keep a physical distance of at least one metre from others.
   - Avoid public transportation, if possible. If you must use them, increase ventilation with open windows and space yourself out from other people.

8. **Clean surfaces in your home, work or transportation that you use with cleaning materials. Clean as often as possible. This may help to reduce the germs founds on these spaces.**

9. **STAY HOME!**
   Your best mode of protection is to stay home as much as possible. Practice social distancing and limit your interaction with those outside of your immediate family.

Summary

It may feel silly to practice these behaviors, especially if you are not sick. But knowing and practicing these things will greatly reduce the likelihood of you or others getting COVID-19. Many people may have the virus and not be aware they are sick or not be showing any symptoms. They can still spread the virus at that time. So please do your part to respect these guidelines and help your community stay healthy!

The important steps in prevention are: Stay home and away from other people as much as possible, practice good hand-washing and respiratory hygiene, try not to physically touch others and avoid touching your face, clean surfaces and monitor your own health. Prevention can help save lives, please do your part.

MODULE 3: WHAT TO DO IF YOU GET SICK? TREATMENT RECOMMENDATIONS FOR COVID-19

Introduction

There is no cure or vaccine available for COVID-19 (as of March 2020) and many places do not have tests available. It is safe to assume that if someone is showing all the common symptoms for COVID-19, they should be treated as if they have COVID-19. This module will discuss treatment options for COVID-19 symptoms. People who are sick must stay home in isolation and treat themselves at home until their symptoms become severe and they need medical attention.

Learning Objectives

After this module, you should be able to:

1. Know how to treat COVID-19 symptoms
2. Understand when to seek medical attention at a health facility
3. Know what to do when you think you have COVID-19

Lesson & Content

What Should I Do If I Feel Sick?

- First, don't panic. Most people who get COVID-19 get mild symptoms and then recover. Some people may not get symptoms at all.

- If you begin to experience the symptoms of COVID-19 you should immediately quarantine yourself. This means you should isolate yourself away from other people (even your own family members when possible.) If you don't have space to stay away from others, try to maintain a 1 metre distance and practice good handwashing and covering your mouth and nose when sneezing and coughing.

DO NOT GO OUT! STAY HOME!
If you go out, you will expose and transfer the virus to other people!

There are currently no vaccines or cures to treat COVID-19.
Research is currently being done to determine if some medications are effective to stop the virus, but nothing has been proven or approved.

Antibiotics will not kill this virus. Antibiotics treat bacterial infections. COVID-19 is a virus, so antibiotics will not help or work. However, someone with severe symptoms of COVID-19 may get bacterial infections and a health worker may treat that infection with an antibiotic, but the antibiotic will NOT help fight COVID-19.

People sick with COVID-19 should treat the mild symptoms of COVID-19 AT HOME with medicines. Do not go to a health facility with mild symptoms. You will expose other people and health workers will not be able to assist you.

Only people with severe symptoms should visit a health center for medical attention. See below:

Health Condition	Treatment of Symptoms
Mild Symptoms like: Fever,] Runny nose, Cough (Treat yourself at home)	Pain/fever reducing medicine Cold/flu medicine Rest Increased fluid intake Self-quarantine at home for 14 days Wear a mask, if possible, to prevent others getting sick
Severe Symptoms like Difficulty breathing, Shortness of breath (Seek medical attention at a health facility immediately.)	Antibiotics to fight bacterial infections IV fluids therapy Oxygen therapy Ventilator (assist during respiratory failure)

There is a test for COVID-19, but these tests are not available in most places, which means people should stay home if they are experiencing symptoms.

If you believe you have COVID-19 you should isolate yourself in your home for 14 days.

Other people that should self-quarantine or isolate themselves from others for 14 days are those that have:

- Recently returned from travel out of the country, especially to a highly infected area
- If you have been in close contact with someone who has a confirmed case of COVID-19
- If you or a family member you are living with have tested positive for COVID-19
- If you are experiencing symptoms like feeling sick; especially with fever, cough or difficulty breathing

Summary

Remember, most people who get COVID-19 will only have mild symptoms. These symptoms must be treated at home. Take steps to prevent exposing other people to the sickness. Monitor your own health, treat yourself, seek medical attention when needed and practice good hygiene to prevent the spread of the disease.

MODULE 4: COMMUNITY EDUCATION & SUPPORT DURING COVID-19

Introduction

As an important member in the community, Community Health Workers (CHWs) are often a reliable source of education, assistance and comfort, especially during hard times. With COVID-19 being a widespread new disease, CHWs have an important role to play to educate and inform the community and help them through this time. With proper education, services and supplies, the community's fear surrounding COVID-19 can be lessened. CHWs are also role models and others will copy their behaviors. Set a good example and let's all do our part to help the community stay strong!

Learning Objectives

After this module, you should be able to:

1. Educate community members with accurate and relevant information
2. Prevent panic of community members with reassuring messages
3. Address stigma and myths and misconceptions
4. Confidently answer general questions from community members you serve

Lesson & Content

Key Tips for CHWs, Volunteers and Community Networks

During a pandemic, there is often confusion and rumours about the disease. People will get a lot of different information from media, friends, family, social media, organizations or other sources. Some of these sources may give conflicting information.

When people have too much information about a problem, it can be hard to identify a solution.

- People might become fearful and mistrust health recommendations. They might resist and deny the situation
- This can lead to people not using medical help and ignore life-saving health advice or escape measures (i.e. quarantine) put in place by authorities and health services to prevent spread of the disease.
- Misunderstandings about the disease can lead people to refuse help from health workers. They may even make threats or use violence.
- Fearful people might start mistreating people who have or seem to be sick. This can happen even when they are cured already due to a lack of knowledge about effectiveness of treatment.

Field staff, volunteers and community members are in the best place to build trust with communities and community leaders. Therefore, it is important to listen to people and respond to their questions, fears and misinformation with fact-checked information that is useful to them.
Social mobilizers, community workers and volunteers have an important role in providing timely and actionable health information, so people know how to protect themselves and stay healthy.

STEP 1: HOW TO ENGAGE – Simple Tips for How to Engage with the Community

- Explain **who you are, which organisation you come from and what you do** in the community. This can include:
    - We work to share accurate information about the new coronavirus disease (COVID-19) and its symptoms. We also work to share what people can do to protect themselves and their communities from it.
    - To do this, the teams reach out to community members in several ways, such as radio, SMS message, posters, billboards, face-to-face visits, and community meetings.
    - **Introduce yourself and show empathy**: We understand you are all worried about this new disease. We are here to help you understand it and make sure you know what you can do to protect yourself and others.
- **Understand what people are saying**: Listen first to what people have to say about COVID-19, before sharing what you know.

FOUR THINGS ABOUT MYTHS AND RUMOURS

1. Myths and rumours often occur when people do not have enough accurate information and understanding about a disease. They can occur when there are strong cultural beliefs surrounding the disease or prevention measures.

2. Myths or rumours can also happen when contradictory messages are coming from different sources.

3. Myths and rumours can increase fear among communities, which can unfortunately keep individuals, households and communities from practicing the correct prevention and control practices.

4. This means that providing accurate information to increase knowledge and understanding about transmission of the new coronavirus disease (COVID-19) becomes important. This can change the myth or misconception.

- **Encourage awareness and action:** Information shared with communities should use simple words and language (don't use acronyms or 'foreign language terms') and include practical advice people can put into action. For example:
    - an instruction to follow (e.g. if you get very sick, seek medical care at hospital)
    - a behaviour to adopt (e.g. wash your hands frequently to protect yourself and others from getting sick…),
    - information they can share with friends and family (such as where and when to access services,)
    - information that addresses myths and misconceptions that are noted in the community

- **Do not only tell people what to do** but engage people in a conversation - first listen, to understand key concerns and questions. Ask people what they already know, want and need to know about COVID-19, Involve them in designing and delivering health activities, because they are more likely to trust you and the information you share, and play an active role in prevention measures.
- Explain few, clear and simple messages to the community (including families/care givers, local leaders) in the language they prefer and avoiding technical terms (i.e. transmission, spreading is easier to understand)
- Make sure everybody has understood your information. Ask questions to understand levels of understanding
- **Get peers and leaders to talk**: People are more likely to pay attention to information from people they already know, trust and whom they feel are concerned about their wellbeing.

REMEMBER

- Be honest when you don't know something and tell the community that you will try and find out and come back to them
- Do not attach race or location to this disease e.g. the Chinese virus
- Do not refer to people as cases or victims. Talk about people who have or are being treated for COVID-19.
- Do not repeat rumours!
- Talk positively about preventive and treatment measures. For most people, they can safely recover from this disease.

STEP 2: ASK THE RIGHT QUESTIONS

Begin by learning more about people's concerns and what questions they have. Make sure to answer questions. Here are some K questions for starting a dialogue with people and communities.

- What have you heard about this new coronavirus disease (COVID-19)?
- What information would you like to know about the new coronavirus?
- Do you know what the symptoms are?
- Do you know what to do if someone in your family or community gets sick with cold-like symptoms?
- Would you be afraid of someone who has the new coronavirus disease (COVID-19)?
- Do you know how to prevent yourself and your loved ones from contracting the new coronavirus disease (COVID-19)?
- Do people in your community wash their hands regularly? If yes, why? And if no, why not?
- Do people in your community keep a safe distance (i.e. 1 meter – 3 feet from another person) and cover their mouths with a tissue or elbow when sneezing? If yes, why? And if no, why not?

- Do members of your household open windows and doors to let fresh air in and thoroughly clean surfaces to kills germs?
- Do you think there is a group/or person in your community who is responsible for spreading the virus (to check stigmatizing attitudes)? If people refer to Chinese people and/or Asian people, ask an additional question. Why do you think these people are spreading the virus in your community?

STEP 3: WHAT TO SAY?

Use the information in these modules to provide correct information about COVID-19.

STEP 4: FREQUENTLY ASKED QUESTIONS ABOUT COVID-19 MYTHS AND MISCONCEPTIONS

How contagious is COVID-19? Is it easy to get?

COVID-19 is a very contagious respiratory disease. It takes close contact with a sick person or with objects/surfaces the person has used to become infected with the virus. Many of the people who get the disease are caregivers and family members caring for a sick person without protective equipment.

Are there any specific medicines to prevent or treat the new coronavirus?

The disease can be treated, and many people have already recovered from it. While there is no specific medicine for COVID-19 available, those infected with the virus should receive care to relieve and treat symptoms. Those with severe illness should get care in a hospital.

Is there a vaccine?

There is no vaccine yet because this is a new virus. It takes time to develop a new vaccine that is efficient and safe. Researchers are working on it.

Should we avoid Chinese food?

COVID-19 is not spread by eating Chinese food. It is safe to eat any fully cooked food in a hygienic and clean environment.

How can I keep my child safe?

It is important to teach your children to wash their hands regularly with soap and water or alcohol-based hand sanitiser. You should also teach them to cough/sneeze into their bent elbow or into a tissue and put the tissue directly into the garbage and wash their hands right after. Keep windows open at home and on public transport so the air circulates and carries germs away!

Do I need a mask to protect myself against COVID-19?
No, the best thing you can do to protect yourself from the new coronavirus disease (COVID-19) is to simply wash your hands well and often, avoid public gatherings and events and practice other prevention measures.

Do we really have to stay home?
Your family will be safest when in isolation and practicing social distancing. You should also be monitoring your health consistently – seek help if symptoms appear and worsen.

What supplies do we need? Food? Water? Medicines? Masks?
With isolation being one of the best prevention methods, staying at home is recommended. There is no need to panic buy or stock up on items. Buy enough food and water for a few weeks. Some medicines can be used to treat mild symptoms such as fever and cough. Masks are only needed if you are sick or taking care of someone that is sick.

What can we expect now? Later?
COVID-19 is spreading throughout all countries in the world and researchers are learning more and more about the disease. You should follow your government's guidelines and stay isolated or practice social distancing until notified otherwise. This will help to keep you, your family and others safer during this time. COVID-19 will not go away quickly and it is likely there will be more cases. Stay calm, stay informed and monitor your health.

Do medications work? Which ones?
There are currently no vaccines or medications to prevent or cure COVID-19. Antibiotics and antimicrobial medications are only used to treat bacterial infections, not viruses. Use pain/ fever reducing medication and cold/ flu medication can be used to alleviate mild symptoms.

When should we seek medical attention?
If symptoms become more severe, you should seek medical attention immediately.

Can the virus be spread through breastmilk?
COVID-19 does not pass to the baby through breastmilk. The baby can get sick if the mother is sick and spreads germs to the baby. A sick mother should pump breastmilk, have someone else feed the baby and that person should wash hands before and after touching/ feeding the baby. Mother should also wash hands before and after touching the baby.

Can spraying alcohol or chlorine all over your body kill COVID-19?
No. Spraying alcohol or chlorine all over your body will not kill viruses that have already entered your body. Spraying such substances can be harmful to clothes or your eyes and mouth. Be aware that both alcohol and chlorine can be useful to disinfect surfaces, but they need to be used appropriately.

Can COVID-19 be transmitted in areas with hot and humid climates?
Yes, COVID-19 virus can be transmitted in ALL AREAS, including areas with hot and humid weather.

Can cold weather and snow kill COVID-19?
No. There is no reason to believe that cold weather can kill the new coronavirus or other diseases. The normal human body temperature remains around 36.5°C to 37°C, regardless of the external temperature or weather.

Does taking a hot bath prevent COVID-19?
No. Taking a hot bath will not prevent you from catching COVID-19. Your normal body temperature remains around 36.5°C to 37°C, regardless of the temperature of your bath or shower. Taking a hot bath with extremely hot water can be harmful, as it can burn you.

Can COVID-19 be transmitted through mosquito bites?
No, it cannot be transmitted by mosquitoes. The new coronavirus is a respiratory virus which spreads primarily through droplets generated when an infected person coughs or sneezes, or through droplets of saliva or discharge from the nose.

Summary

Being a community role model and educator is an important job. Make sure to know as much as you can about COVID-19 so that you can provide the information to your friends, families, peers and community. We don't know everything about COVID-19. Don't be afraid to say you don't have an answer. Accurate information and reassuring answers will help our communities stay as calm as possible during tough and uncertain times.

MODULE 5: PREPARATION FOR COMMUNITY HEALTH CLINICS

Based on *Responding to community spread of COVID-19,*
Interim Guidance from WHO as of March 7, 2020

Introduction

Health care facilities should be prepared for a significant increase of COVID-19 cases while still maintaining provision of essential health services. Triage systems will be needed to reduce the risk of exposing other persons or patients to COVID-19, to prioritize treatment for severe and high-risk patients and to manage demands on staff, facilities and supplies.

Staff should be able to recognize signs and symptoms, identify known complications and administer appropriate treatment while protecting themselves. Preventing infection in health workers and avoiding the spread of COVID-19 amongst patients is key for successful prevention and response, protects the health work force and maintains confidence in the health care system.

Learning Objectives

After this module, you should be able to:

1. Prepare for case management of COVID-19
2. Aid prevention with infection protection control measures
3. Know how and when to use a mask

** A link to the full WHO document can be found online at*
https://medicinesforhumanity.org/covid-19-global-pandemic/

Lesson and Content

Health facilities should take the following recommended actions in order to prepare for case management of COVID-19:

Highest Priorities:

- Set up surge triage, screening areas, treatment and critical care units (including staffing, space and supplies, including oxygen) at health facilities.
- Share guidance with health providers for COVID-10 and severe acute respiratory infections using this curriculum and international/WHO standards, including for community care.
- Make guidance available for home care of patients with mild COVID-19 symptoms and recommend when referral to healthcare facilities is advised if symptoms worsen.
- Support comprehensive medical, nutritional and psycho-social care for people with COVID-19

- Maintain routine and emergency health serviced provision for the population

Secondary Priorities:

- Update training of and refresh medical/ambulatory teams.
- Participate in clinical expert networks to aid in clinical characterization of COVID-19, address challenges in clinical care, foster global collaboration.

Health facilities should take the following recommended actions in order to prepare for infection prevention control (IPC) of COVID-19.

Highest Priorities:

- Identify and mobilize trained staff with the authority and technical expertise to implement IPC activities at vulnerable health facilities.
- Implement triage, early detection, administrative, environmental and engineering controls, personal protective equipment. Provide educational materials for patients and families of symptoms and to practice respiratory etiquette.
- Define patient referral pathways and a plan for ensuring personal protective equipment (PPE) supply management and human resource surge capacity.
- Implement a plan for monitoring health personnel exposed to confirmed COVID-19 cases for respiratory illness and for reporting infections to the Ministry of Health.

Secondary Priorities:

- Monitor IPC and WASH implementation in the health facility and public spaces especially hand hygiene compliance.

WHO guidance on the Use of Masks for Health Workers

Wearing a medical mask can help limit the spread of some respiratory disease, HOWEVER, using a mask alone is not guaranteed to stop infections and should be combined with other prevention measures including hand and respiratory hygiene and avoiding close contact (at least 1 meter away from people).

How to use a mask

If medical masks are worn, it is key to use and dispose of them appropriately to ensure they are effective and avoid any increase in risk of transmission associated with their misuse and incorrect disposal:

- place mask carefully to cover mouth and nose and tie securely to minimize any gaps between the face and the mask;
- while in use, avoid touching the mask;
- remove the mask by removing the laces from behind, while avoiding any contact with the front of the mask

- after removal or after touching a used mask, clean hands by using an alcohol-based hand rub or soap and water if hands are visibly soiled
- replace masks with a new clean, dry mask as soon as they become damp/humid;
- do not re-use single-use masks;
- discard single-use masks after each use and dispose of them immediately upon removal inside a closed bin.

Cloth (e.g. cotton or gauze) masks are NOT recommended under any circumstance; as they are not effective.

What is hand and respiratory hygiene?

Wash hands frequently with alcohol-based hand rub or soap and water when hands visibly soiled; do not touch mouth or nose; cough and sneeze into the bend of an elbow or paper tissue, then throw away tissue into a waste bin immediately after use and wash hands with alcohol-based hand rub or soap and water.

Medical masks should be used rationally. This means using masks when required such as in healthcare settings and for people who are coughing and sneezing and avoiding unnecessary wastage of precious resources and misuse of masks.

The use of medical masks is advised only in certain settings:

<u>Health care facilities</u>

Individuals with respiratory symptoms:

- wear a medical mask when moving around the facility, in waiting rooms and in areas where there are suspected or confirmed cases of COVID-19. Use, remove and dispose of the mask appropriately
- Do not wear a medical mask when isolated in individual rooms. Continue to follow guidance on hand and respiratory hygiene

Health care workers:

- wear a medical mask in the presence of suspected or confirmed COVID-19 cases; in addition to practicing recommended infection, prevention and control precautions
- use a particulate respirator when performing aerosol-generating procedures

<u>Community setting</u>

Individuals with respiratory symptoms (for example, sneezing, coughing, runny nose) can wear a medical mask and seek early care.

Healthy individuals with no respiratory symptoms do NOT need to wear a mask! Advise people to follow guidance on hand and respiratory hygiene, stay at least 1 meter away from anyone who is coughing and sneezing and avoid crowds and mass gatherings.

Home care

Individuals with suspected COVID-19 infection who have been advised by health authorities to stay home and not seek treatment, or who cannot access health care should:

- wear a mask as much as possible, particularly near other people
- follow guidance on hand and respiratory hygiene
- stay at least 1 meter away anyone who does not have COVID-19 infection
- keep windows and doors open as much as possible to improve airflow in living space, bathrooms and other places the ill individual will use

Relatives or caregivers to individuals with suspected COVID-19 infection:

- wear a mask when in the same room as the affected individual
- throw away any masks or tissues immediately after use and wash hands immediately
- follow guidance on hand and respiratory hygiene
- stay at least 1 meter away from sick individuals
- keep windows and doors open as much as possible to improve airflow in living space

Summary

Health facilities should immediately begin taking steps to prepare for COVID-19 cases even if there are no cases within your community at this time. Advance preparation will help to stop the spread of this disease and allow us to save more lives!

What follows is more guidance in pictures for health workers from WHO.

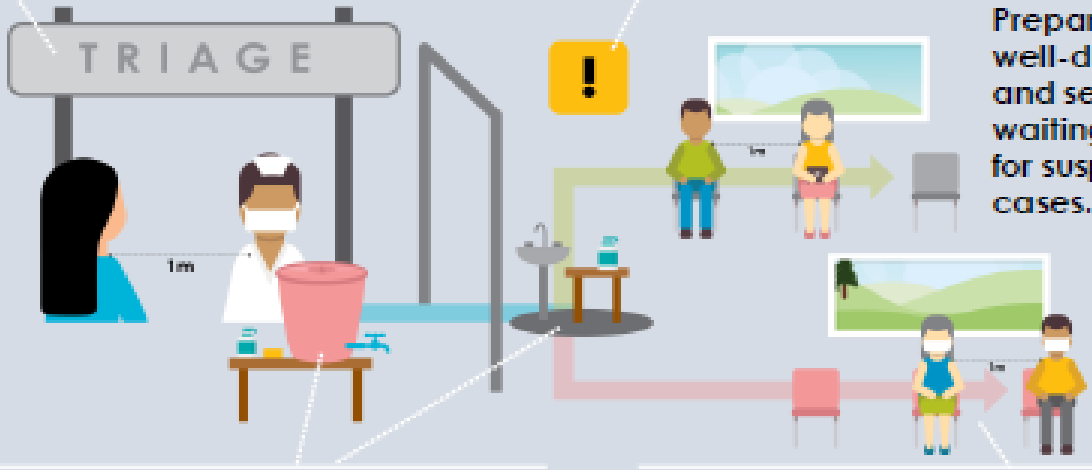
Novel Coronavirus COVID-19

FOR: HEALTHCARE FACILITY MANAGEMENT

Preparing for COVID-19 at your healthcare facility

Have a triage station at the healthcare facility entrance, prior to any waiting area, to screen patients for COVID-19. This limits potential infection throughout the health care center.

Post information, like posters and flyers, that remind patients and visitors to practice good respiratory and hand hygiene.



Prepare a well-defined and separate waiting area for suspected cases.

Have alcohol-based hand rub or soap and water handwashing stations readily available for the use of healthcare workers, patients and visitors.

Be alert for anyone that may have symptoms such as cough, fever, shortness of breath, and difficulty breathing.

Protect your workforce

Be ready! Ensure your healthcare and triage workers:

- Are trained on the importance, selection and proper use of personal protective equipment
- Are trained to spot symptoms of a potential COVID-19 infection and offer a medical mask to suspected cases
- Know the case definition and have a decision flow diagram available and accessible for reference at the triage station
- Isolate a suspected case promptly
- Perform hand hygiene frequently

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FOR: HEALTHCARE WORKERS

Protecting yourself at work from COVID-19

Follow the guidance of your healthcare facility management and talk to your colleagues about agreed COVID-19 safety procedures

When entering a room with a suspected or confirmed COVID-19 patient, put on:

- disposable gloves
- a clean, long-sleeve gown
- medical mask that covers your mouth and nose
- eye protection such as goggles

Remember
Personal protective equipment should be changed between use and for each different patient. If utilizing single-use personal protective equipment (e.g. single-use masks, gloves, face shields) dispose in a waste bin with a lid and wash your hands thoroughly. Anything single-use cannot be reused or sterilized!

If performing an aerosol-generating procedure, such as intubation, use a particulate respirator such as an N95 – **do a seal check!**

Boots and coverall suits **are not required**

Remember Don't touch your eyes, nose or mouth with gloves or bare hands until proper hand hygiene has been performed

If you start coughing, sneezing or develop fever after you have provided care, report your illness immediately to the concerned authority and follow their advice

My 5 Moments for Hand Hygiene

Use alcohol-based hand rub or wash hands with soap and water:

1. Before touching a patient
2. Before engaging in clean/aseptic procedures
3. After body fluid exposure risk
4. After touching a patient
5. After touching patient surroundings

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FOR HEALTHCARE WORKERS

Personal Protective Equipment (PPE) According to Healthcare Activities

Remember Hand hygiene is always important. Clean hands before putting on, and after taking off, PPE.

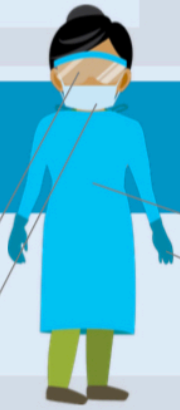
Triage/points of entry screening personnel

- medical mask

Collecting respiratory specimens

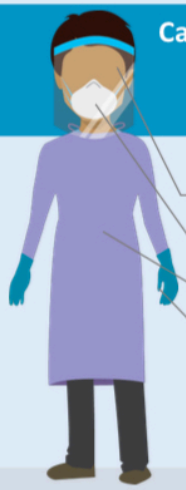
- goggles OR face shield
- medical mask
- gown
- gloves

Caring for a suspected/confirmed case of COVID-19 with NO aerosol-generating procedure



- goggles OR face shield
- medical mask
- gown
- gloves

Caring for a suspected/confirmed case of COVID-19 WITH aerosol-generating procedure



- goggles OR face shield
- Respirator (N95 or FFP2)
- gown
- gloves

Transport of suspected/ confirmed case of COVID-19, including direct care

- goggles OR face shield
- medical mask
- gown
- gloves

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FOR: HEALTHCARE WORKERS

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Communicating with patients with suspected or confirmed COVID-19

- Be respectful, polite and empathetic
- Be aware that suspected and confirmed cases, and any visitors accompanying them, may be stressed or afraid
- The most important thing you can do is to listen carefully to questions and concerns
- Use local language and speak slowly
- Answer any questions and provide correct information about COVID-19
- You may not have an answer for every question: a lot is still unknown about COVID-19 and it is okay to admit that
- If available, share information pamphlets or handouts with your patients
- It is okay to touch, or comfort suspected and confirmed patients when wearing PPE
- Gather accurate information from the patient: their name, date of birth, travel history, list of symptoms…
- Explain the healthcare facility's procedure for COVID-19, such as isolation and limited visitors, and the next steps
- If the patient is a child, admit a family member or guardian to accompany them – the guardian should be provided and use appropriate personal protective equipment
- Provide updates to visitors and family when possible

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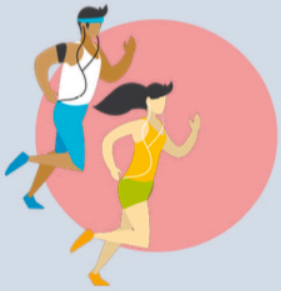
FOR HEALTHCARE FACILITY STAFF

Coping with stress

It is normal to feel sad, stressed, or overwhelmed during a crisis

Talk to people you trust or a counsellor



Maintain a healthy lifestyle: proper diet, sleep, exercise and social contacts with friends and family

Don't use alcohol, smoking or other drugs to deal with your emotions

If you have concerns, talk with your supervisor, and if you start feeling unwell tell your doctor immediately

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MODULE 6: MANAGEMENT OF SEVERE ACUTE RESPIRATORY INFECTION WHENCOVID-19 INFECTION IS SUSPECTED

Based on Interim Guidance from WHO as of January 28, 2020

Introduction

This module is intended for clinicians taking care of hospitalized adult and pediatric patients with severe acute respiratory infection (SARI) when COVID-19 infection is suspected. It is not meant to replace clinical judgment or specialist consultation but rather to strengthen clinical management of these patients and provide to up-to-date guidance. Best practices for SARI including infection prevention control (IPC) and optimized supportive care for severely ill patients are essential.

Learning Objectives

After this module, you should be able to:

1. Understand the management of SARI when COVID-19 is suspected
2. Properly manage patients with COVID-19 and SARI.
3. Understand when to refer patients to higher levels of care.

** A link to the full WHO document can be found online at https://medicinesforhumanity.org/covid-19-global-pandemic/*

Lesson & Content

These symbols are used to flag interventions:

- ✓ Do: the intervention is beneficial (strong recommendation) **OR** the intervention is a best practice statement
- × Don't: the intervention is known to be harmful.
- = Consider: the intervention may be beneficial in selected patients (conditional recommendation) **OR** be careful when considering this intervention.

Triage: early recognition of patients with SARI associated with COVID-19

- ✓ Triage: recognize and sort all patients with SARI at first point of contact with health care system. Consider COVID-19 as a possible etiology of SARI under certain conditions. Triage patients and refer for emergency treatments based on disease severity.

COVID-19 infection may present with mild, moderate, or severe illness. Severe illness severe pneumonia, ARDS, sepsis and septic shock. Early recognition of suspected patients allows for timely initiation of IPC. Early identification of those with severe manifestations (see below) allows for immediate care treatments and safe, rapid admission (or referral) to intensive care unit. For those with mild illness, hospitalization may not be required unless there is concern for rapid deterioration. All patients discharged home should be instructed to return to hospital if they develop any worsening of illness.

Definition of patients with SARI, suspected of COVID-19 infection:
An acute respiratory infection (ARI) with history of fever or measured temperature ≥38 C° and cough; onset within the last ~10 days; and requiring hospitalization. However, the absence of fever does NOT exclude viral infection.

Clinical syndromes associated with COVID-19

Uncomplicated illness	Patients with uncomplicated upper respiratory tract viral infection, may have non-specific symptoms such as fever, cough, sore throat, nasal congestion, malaise, headache, muscle pain or malaise. The elderly and immunosuppressed may present with atypical symptoms. These patients do not have any signs of dehydration, sepsis or shortness of breath.
Mild pneumonia	Patient with pneumonia and no signs of severe pneumonia. Child with non-severe pneumonia has cough or difficulty breathing + fast breathing: fast breathing (in breaths/min): <2 months, ≥60; 2–11 months, ≥50; 1–5 years, ≥40 and no signs of severe pneumonia.
Severe pneumonia	Adolescent or adult: fever or suspected respiratory infection, plus one of respiratory rate >30 breaths/min, severe respiratory distress, or SpO2 <90% on room air. Child with cough or difficulty in breathing, plus at least one of the following: central cyanosis or SpO2 <90%; severe respiratory distress (e.g. grunting, very severe chest indrawing); signs of pneumonia with a general danger sign: inability to breastfeed or drink, lethargy or unconsciousness, or convulsions. Other signs of pneumonia may be present: chest indrawing, fast breathing (in breaths/min): <2 months, ≥60; 2–11 months, ≥50; 1–5 years, ≥40. The diagnosis is clinical; chest imaging can exclude complications.
Acute Respiratory Distress Syndrome	**Onset:** new or worsening respiratory symptoms within one week of known clinical insult. **Chest imaging (radiograph, CT scan, or lung ultrasound):** bilateral opacities, not fully explained by effusions, lobar or lung collapse, or nodules. **Origin of oedema:** respiratory failure not fully explained by cardiac failure or fluid overload. Need objective assessment (e.g. echocardiography) to exclude hydrostatic cause of oedema if no risk factor present. **Oxygenation required**
Sepsis	Life-threatening organ dysfunction caused by a dysregulated host response to suspected or proven infection, with organ dysfunction. Signs of organ dysfunction include: altered mental status, difficult or fast breathing, low oxygen saturation, reduced urine output, fast heart rate, weak pulse, cold extremities or low blood pressure, skin mottling, or laboratory evidence of coagulopathy, thrombocytopenia, acidosis, high lactate or hyperbilirubinemia.
Septic Shock	Persisting hypotension despite volume resuscitation, requiring vasopressors to maintain

Immediate implementation of appropriate IPC measures.

IPC is a critical and integral part of clinical management of patients and should be initiated at the point of entry of the patient to hospital (typically the Emergency Department). Standard precautions should always be routinely applied in all areas of health care facilities. Standard precautions include hand hygiene; use of PPE to avoid direct contact with patients' blood, body fluids, secretions (including respiratory secretions) and non-intact skin. Standard precautions also include prevention of needle-stick or sharps injury; safe waste management; cleaning and disinfection of equipment; and cleaning of the environment.

How to implement infection prevention and control measures for patients with suspected or confirmed COVID-19

At triage	Give suspect patient a medical mask and direct patient to separate area, an isolation room if available. Keep at least 1 meter distance between suspected patients and other patients. Instruct all patients to cover nose and mouth during coughing or sneezing with tissue or flexed elbow for others. Perform hand hygiene after contact with respiratory secretions.
Apply droplet precautions	Droplet precautions prevent large droplet transmission of respiratory viruses. Use a medical mask if working within 1-2 meters of the patient. Place patients in single rooms, or group together those with the same etiological diagnosis. If an etiological diagnosis is not possible, group patients with similar clinical diagnosis and based on epidemiological risk factors, with a spatial separation. When providing care in close contact with a patient with respiratory symptoms (e.g. coughing or sneezing), use eye protection (face mask or goggles), because sprays of secretions may occur. Limit patient movement within the institution and ensure that patients wear medical masks when outside their rooms.
Apply contact precautions	Droplet and contact precautions prevent direct or indirect transmission from contact with contaminated surfaces or equipment (i.e. contact with contaminated oxygen tubing/interfaces). Use PPE (medical mask, eye protection, gloves and gown) when entering room and remove PPE when leaving. If possible, use either disposable 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. Ensure that health care workers refrain from touching their eyes, nose, and mouth with potentially contaminated gloved or ungloved hands. Avoid contaminating environmental surfaces that are not directly related to patient care (e.g. door handles and light switches). Ensure adequate room ventilation. Avoid movement of patients or transport. Perform hand hygiene.

Apply airborne precautions when performing an aerosol generating procedure	Ensure that healthcare workers performing aerosol-generating procedures **(i.e. open suctioning of respiratory tract, intubation, bronchoscopy, cardiopulmonary resuscitation)** use PPE, including gloves, long-sleeved gowns, eye protection, and fit-tested particulate respirators (N95 or equivalent, or higher level of protection). (The scheduled fit test should not be confused with user seal check before each use.) Whenever possible, use adequately ventilated single rooms when performing aerosol-generating procedures, meaning negative pressure rooms with minimum of 12 air changes per hour or at least 160 litres/second/patient in facilities with natural ventilation. Avoid the presence of unnecessary individuals in the room. Care for the patient in the same type of room after mechanical ventilation commences.

Abbreviations: ARI, acute respiratory infection; PPE, personal protective equipment

Early supportive therapy and monitoring

- ✓ Give supplemental oxygen therapy immediately to patients with SARI and respiratory distress, hypoxaemia, or shock.
- ✓ Use conservative fluid management in patients with SARI when there is no evidence of shock.
- ✓ Give empiric antimicrobials to treat all likely pathogens causing SARI. Give antimicrobials within one hour of initial patient assessment for patients with sepsis.
- × Do not routinely give systemic corticosteroids for treatment of viral pneumonia or ARDS outside of clinical trials unless they are indicated for another reason.
- ✓ Closely monitor patients with SARI for signs of clinical deterioration, such as rapidly progressive respiratory failure and sepsis, and apply supportive care interventions immediately.
- ✓ Understand the patient's co-morbid condition(s) to tailor the management of critical illness and appreciate the prognosis. Communicate early with patient and family.

Summary

Health providers should follow these WHO guidelines when treating patients and refer patients with severe illness to higher level facilities for treatment. Please refer to the full WHO document for more details as needed. This can be found at found online at https://medicinesforhumanity.org/covid-19-global-pandemic/ .

MODULE 7: HAND HYGIENE: WHY, HOW & WHEN

Based on WHO Patient Safety

Introduction

Thousands of people die every day around the world from infections acquired while receiving health care. Hands are the main pathways of germ transmission during health care. Hand hygiene is the most important measure to avoid the transmission of harmful germs like COVID-19 and prevent health care-associated infections.

Learning Objectives

After this module, you should be able to:

1. Know the proper approach to hand hygiene on a regular basis
2. Understand the WHO Hand Hygiene tips and techniques

** A link to the full WHO document can be found online at https://medicinesforhumanity.org/covid-19-global-pandemic/*

Lesson and Content

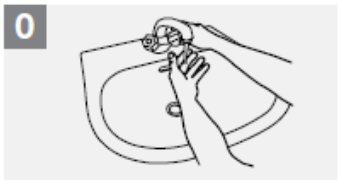
How should a health worker wash his/her hands?

- Clean your hands by rubbing them with an alcohol-based rub, as the preferred means for routine hygienic hand antisepsis if hands are not visibly soiled. It is faster, more effective, and better tolerated by your hands than washing with soap and water. (See diagram on following pages.)
- Wash your hands with soap and water when hands are visibly dirty or visibly soiled with blood or other body fluids or after using the toilet. (See diagram on following pages.)

Figure II.1
How to hand rub

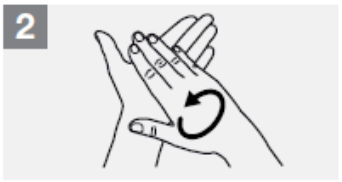
WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB

Duration of the entire procedure: 40-60 seconds

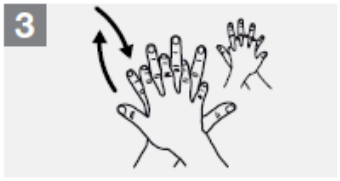


Wet hands with water;

Apply enough soap to cover all hand surfaces;

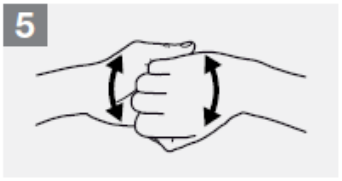


Rub hands palm to palm;



Right palm over left dorsum with interlaced fingers and vice versa;

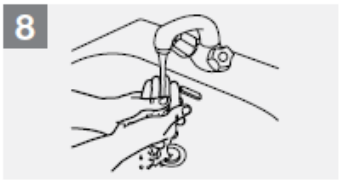
Palm to palm with fingers interlaced;



Backs of fingers to opposing palms with fingers interlocked;

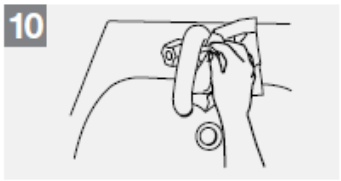
Rotational rubbing of left thumb clasped in right palm and vice versa;

Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;

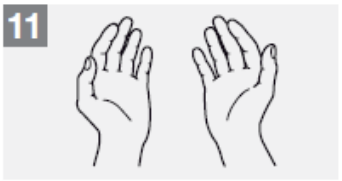


Rinse hands with water;

Dry hands thoroughly with a single use towel;



Use towel to turn off faucet;



Your hands are now safe.

Hand care

- Take care of your hands by regularly using a protective hand cream or lotion, at least daily.
- Do not routinely wash hands with soap and water immediately before or after using an alcohol-based handrub.
- Do not use hot water to rinse your hands.
- After handrubbing or handwashing, let your hands dry completely before putting on gloves.

Please remember

- Do not wear artificial fingernails or extenders when in direct contact with patients.
- Keep natural nails short.

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FOR: HEALTHCARE FACILITY STAFF

My 5 Moments for Hand Hygiene

My 5 Moments for Hand Hygiene

Use alcohol-based hand rub or wash hands with soap and water:

1 Before touching a patient

2 Before engaging in clean/aseptic procedures

3 After body fluid exposure risk

4 After touching a patient

5 After touching patient surroundings

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1 Before touching a patient

WHY? To protect the patient against colonization and, in some cases, against exogenous infection, by harmful germs carried on your hands

WHEN? Clean your hands before touching a patient when approaching him/her*

Situations when Moment 1 applies:

a) Before shaking hands, before stroking a child's forehead

b) Before assisting a patient in personal care activities: to move, to take a bath, to eat, to get dressed, etc

c) Before delivering care and other non-invasive treatment: applying oxygen mask, giving a massage

c) Before performing a physical non-invasive examination: taking pulse, blood pressure, chest auscultation, recording ECG

2 Before clean / aseptic procedure

WHY? To protect the patient against infection with harmful germs, including his/her own germs, entering his/her body

WHEN? Clean your hands immediately before accessing a critical site with infectious risk for the patient (e.g. a mucous membrane, non-intact skin, an invasive medical device)*

Situations when Moment 2 applies:

a) Before brushing the patient's teeth, instilling eye drops, performing a digital vaginal or rectal examination, examining mouth, nose, ear with or without an instrument, inserting a suppository / pessary, suctioning mucous

b) Before dressing a wound with or without instrument, applying ointment on vesicle, making a percutaneous injection / puncture

c) Before inserting an invasive medical device (nasal cannula, nasogastric tube, endotracheal tube, urinary probe, percutaneous catheter, drainage), disrupting / opening any circuit of an invasive medical device (for food, medication, draining, suctioning, monitoring purposes)

d) Before preparing food, medications, pharmaceutical products, sterile material

3 After body fluid exposure risk

WHY? To protect you from colonization or infection with patient's harmful germs and to protect the health-care environment from germ spread

WHEN? Clean your hands as soon as the task involving an exposure risk to body fluids has ended (and after glove removal)*

Situations when Moment 3 applies:

a) When the contact with a mucous membrane and with non-intact skin ends

b) After a percutaneous injection or puncture; after inserting an invasive medical device (vascular access, catheter, tube, drain, etc); after disrupting and opening an invasive circuit

c) After removing an invasive medical device

d) After removing any form of material offering protection (napkin, dressing, gauze, sanitary towel, etc)

e) After handling a sample containing organic matter, after clearing excreta and any other body fluid, after cleaning any contaminated surface and soiled material (soiled bed linen, dentures, instruments, urinal, bedpan, lavatories, etc)

4 After touching a patient

WHY? To protect you from colonization with patient germs and to protect the health-care environment from germ spread

WHEN? Clean your hands when leaving the patient's side, after having touched the patient *

Situations when Moment 4 applies, if they correspond to the last contact with the patient before leaving him / her:

a) After shaking hands, stroking a child's forehead

b) After you have assisted the patient in personal care activities: to move, to bath, to eat, to dress, etc

c) After delivering care and other non-invasive treatment: changing bed linen as the patient is in, applying oxygen mask, giving a massage

d) After performing a physical non-invasive examination: taking pulse, blood pressure, chest auscultation, recording ECG

5 After touching patient surroundings

WHY? To protect you from colonization with patient germs that may be present on surfaces / objects in patient surroundings and to protect the health-care environment against germ spread

WHEN? Clean your hands after touching any object or furniture when living the patient surroundings, without having touched the patient*

This Moment 5 applies in the following situations if they correspond to the last contact with the patient surroundings, without having touched the patient:

a) After an activity involving physical contact with the patients immediate environment: changing bed linen with the patient out of the bed, holding a bed trail, clearing a bedside table

b) After a care activity: adjusting perfusion speed, clearing a monitoring alarm

c) After other contacts with surfaces or inanimate objects (note – ideally try to avoid these unnecessary activities): leaning against a bed, leaning against a night table / bedside table

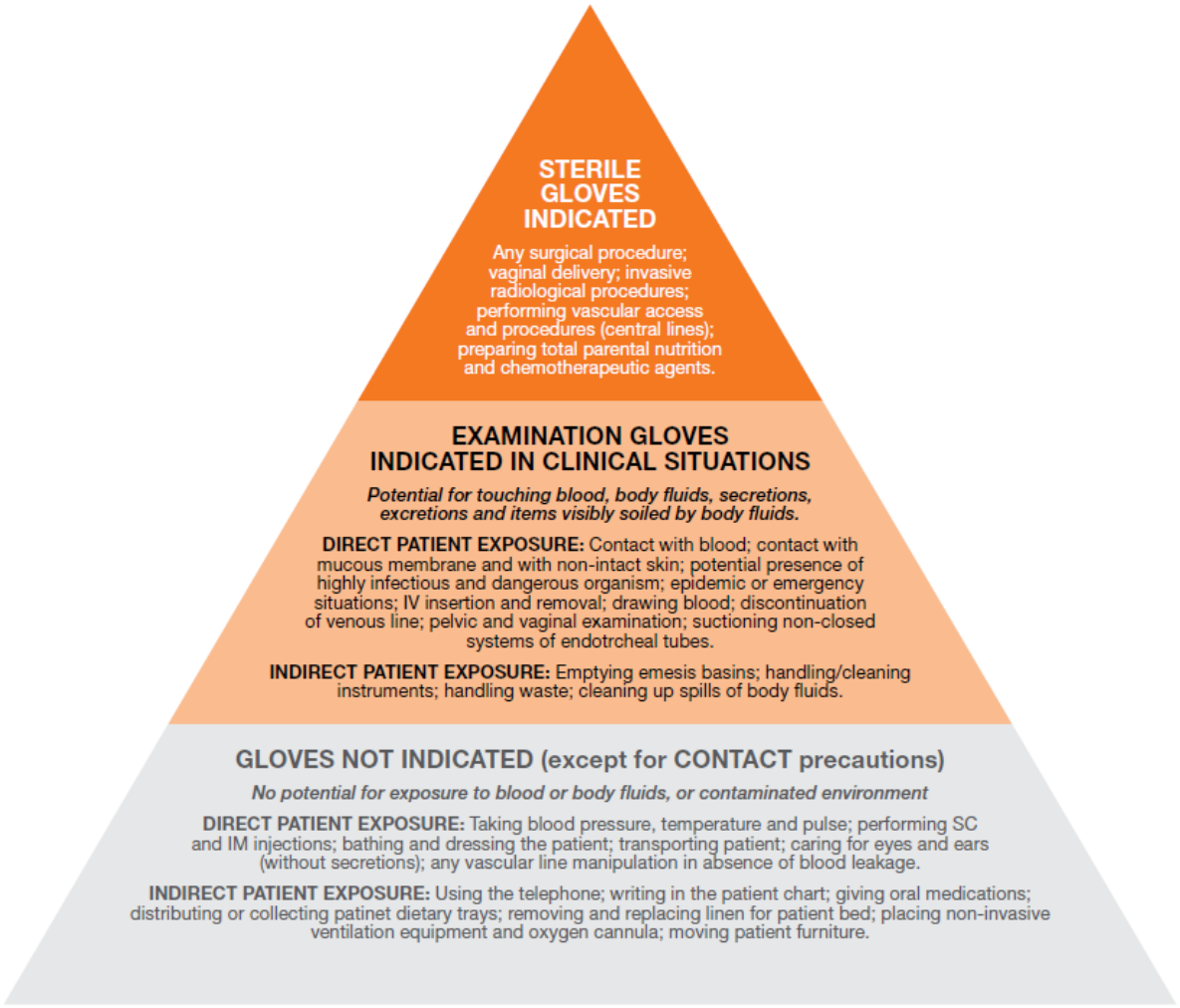
***NOTE:** Hand hygiene must be performed in all indications described regardless of whether gloves are used or not.

HAND HYGIENE AND MEDICAL GLOVE USE

- The use of gloves does not replace the need for cleaning your hands.
- Hand hygiene must be performed when appropriate regardless of the indications for glove use.
- Remove gloves to perform hand hygiene, when an indication occurs while wearing gloves.
- Discard gloves after each task and clean your hands – gloves may carry germs.
- Wear gloves only when indicated according to Standard and Contact Precautions (see examples in the pyramid below) – otherwise they become a major risk for germ transmission.

The Glove Pyramid – to aid decision making on when to wear (and not wear) gloves

Gloves must be worn according to **STANDARD** and **CONTACT PRECAUTIONS**. The pyramid details some clinical examples in which gloves are not indicated, and others in which clean or sterile gloves are indicated. Hand hygiene should be performed when appropriate regardless of indications for glove use.



Summary

Hand washing is one of the best prevention methods for reducing the spread of COVID-19 in our communities. That is why proper hand hygiene is so important. With no cure or vaccine available, prevention is the better than treatment. Do your part to practice good hygiene and encourage others to do the same.

MODULE 8: COVID References and Resources

You can find links to these resources online at the Medicines for Humanity COVID webpage at *https://medicinesforhumanity.org/covid-19-global-pandemic/*

References

- WHO Health Topics Webpage for COVID-19 https://www.who.int/health-topics/coronavirus
- WHO Emergencies/ Diseases/ COVID-19 Webpage https://www.who.int/emergencies/diseases/novel-coronavirus-2019
- WHO mask use in communities and healthcare settings https://www.who.int/publications-detail/advice-on-the-use-of-masks-the-community-during-home-care-and-in-health-care-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak
- WHO clinical management when COVID-19 is suspected https://www.who.int/publications-detail/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-(ncov)-infection-is-suspected
- CDC: CERC - Engaging the community with credibility https://emergency.cdc.gov/cerc/resources/pdf/CERC_Engaging_the_Community_with_Credibility.pdf
- CDC: COVID-19 Frequently Asked Questions Webpage https://www.cdc.gov/coronavirus/2019-ncov/faq.html
- CDC: Webinar - Presentation on preparedness and optimizing N95 supply during COVID-19 response https://www.cdc.gov/vaccines/videos/coronavirus/COVID-19-webinar.pdf
- CDC Coronavirus Info https://www.cdc.gov/coronavirus/2019-ncov/faq.html, https://www.cdc.gov/coronavirus/2019-ncov/downloads/COVID19-symptoms.pdf, https://www.cdc.gov/vaccines/videos/coronavirus/COVID-19-webinar.pdf

Health Worker Resources

- WHO Health Topics Webpage for COVID-19 https://www.who.int/health-topics/coronavirus
- WHO Emergencies/ Diseases/ COVID-19 Webpage https://www.who.int/emergencies/diseases/novel-coronavirus-2019
- WHO rolling updates of COVID-19 events https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen
- WHO free online courses https://openwho.org/courses
- World map of COVID-19 cases https://www.healthmap.org/covid-19/
- Interactive world map of COVID-19 cases https://experience.arcgis.com/experience/685d0ace521648f8a5beeeee1b9125cd
- CDC: Emergency Preparedness and Response – Templates and Tools https://emergency.cdc.gov/cerc/resources/templates-tools.asp
- CDC: Emergency Operations Center https://www.cdc.gov/cpr/eoc.htm