

MUNICIPALITY OF BEIT-MERY

PROPOSAL FOR ISOLATION & QUARANTINE

IN CASE OF COVID 19 COMMUNITY OUTBREAK

Lina S. Moukheiber, MPH
President
EMIL

Municipality of Beit-Mery
“Isolate before it’s too Late”
Saint Augustin Monastery
March 28, 2020

THE ELIAS MOUKHEIBER INSTITUTE FOR LEBANON (EMIL)

Our Vision

The go-to place in Lebanon to design, develop and dialogue about solutions to the country's true challenges. A policy-oriented think-tank committed to tackling hard questions in a rigorous and inclusive manner, and to provide solutions to endemic political and social problems within Lebanese government and society.

Page | 2

Mission

Harnessing Lebanon's potential and creating pathways to a uniquely successful nation and society through creative policy development and leadership, training and mentorship of the next generation.

Linking with the Lebanese diaspora to develop solutions for their country's true challenges, while creating a network of generations committed to working together for Lebanon's future.

Our Values

Rationality, empathy, credibility, creativity, adaptability, resourcefulness, patience, learning, gender inclusiveness (gender, socio-economic status, religious, political inclination) teamwork, analytical rigor and rationality, courage, non-partisanship, loyalty, trustworthiness & commitment to a better future for Lebanon, irrespective of personal political preferences.

The Institute's Commitment to Providing Endemic Solution to the COVID-19 Pandemic

This preparedness plan is drafted for the Municipality of Beit-Mery in response to the President of the Municipality's request, Lawyer Roy Abou-Chedid, to prepare an isolation center for the village.

The Elias Moukheiber Institute for Lebanon (EMIL) will also publicly post the enclosed guidelines on its social media and will submit them to the Governor of the Mount Lebanon District, Judge Mohamad Makawi, for reference as needed.

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BACKGROUND

The COVID-19 pandemic crisis and lessons learned from severe to moderately hit countries like China, Italy, France, Spain and the UK show that preventive measures and disaster preparedness plans are of utmost importance to flatten the curve. The Singapore and Hong Kong case models are clear. Both countries were prepared to face COVID-19 because of their previous experience in 2002 of the CoV-1 SARS epidemic: at the time of the SARS epidemic they were both unprepared and victims. By the time the Covid-19 epidemic hit China, this previous know-how about how to manage such a crisis was essential to their response preparedness.

Page | 3

Eighteen years ago (2002) the Cov1-SARS epidemic (bats to civets/cats transmission) killed about 1 in 10 affected persons in Singapore and Hong Kong. The mortality rate was 10%.

Eight years ago (2012) the CoV-MERS epidemic (bats to camels transmission) that originated in the KSA had a higher mortality rate of 34% to 37%.

The current CoV-2 SARS causing COVID-19 (since December 2019) has a lower mortality rate of 1% to 4% compared to the two previous ones; however the main public health concern is in its mode of rapid spread, reaching pandemic dimensions with a global lockdown paralyzing entire nations - 730,000 people are estimated to have been contaminated and more than 35,000 have died worldwide.

Lessons Learned from the SARS Outbreak to Fight COVID-19

Only ten days ago, Hong Kong seemed like a model on how to contain the novel coronavirus, with a relatively small number of cases despite months of being on the front lines of the outbreak.

That was in large part due to action taken early on, while cases were spreading across mainland China, to implement measures that are now familiar throughout the world: virus mapping, broad testing, social distancing, intensive hand-washing, and wearing masks and other protective clothing.

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Hong Kong was proof that these measures worked, with a city of 7.5 million only reporting some 150 cases at the start of March 2020, even as the number of infections spiked in other East Asian territories like South Korea and Japan, and spread rapidly across Europe and North America. Now, however, Hong Kong is providing a very different object lesson -- what happens when you let your guard down too soon. The number of confirmed cases has almost doubled in the past week, with many imported from overseas, as Hong Kong residents who had left -- either to work or study abroad, or to seek safety when the city seemed destined for a major outbreak earlier this year -- return, bringing the virus back with them.

On March 23, Hong Kong Chief Executive Carrie Lam announced that all non-residents would be barred from the territory as of Wednesday March 25, the latest addition to a raft of new measures.

This is a pattern playing out across parts of Asia -- mainland China, Singapore, Taiwan -- that were among the first to tackle the outbreak. All are now introducing new restrictions as a sudden wave of renewed cases begins to crest.

The Cost of Doing Nothing

Asia is weeks, if not months, ahead of the West and the Middle East when it comes to the coronavirus pandemic. Countries across Europe, North America and the Middle East were slow to learn from those who had already been through it, leaving themselves vulnerable to the rapidly worsening health crises they are experiencing now.

Hopefully Lebanon will not ignore Asia's latest lesson: even when it seems like the coast is clear, keep your guard up.

By doing so, in order to remain vigilant, Lebanon has no other choice but take national measures for the containment of a COVID-19 outbreak, basing its strategies from lessons learned from much developed systems enabled with better equipment and higher capacities.

To date, according to the Lebanese Ministry of Public Health, Lebanon is still containing the epidemic locally. However, if home and community isolation

systems are not rapidly developed and implemented, the situation could become catastrophic.

Key Facts

From the Chinese Center of Disease Control

Page | 5

Out of 50,000 COVID-19 cases studied in China, the following statistics are worth noting:

≠ 80% were mild cases where people were either asymptomatic or others handled it like a “normal” flu by staying home

≠ 13.8 % were severe cases that required hospitalization with no need for respirators

≠ 4.7 % were critical cases that needed admission to ICUs & respirators

From Imperial College in the UK

Imperial College in the UK modeled that, if left alone, the virus will affect 81% of the US population and the UK within 4 months and will cause 2.2 million deaths in the US and 500,000 in the UK.

In this case, the number of critically sick would be 30 times higher than available ICU beds /respirators (30 persons will die versus 1 who has a chance to get to the ICU bed.)

Therefore, in the absence of vaccine, limited medical equipment and hospital beds, the only effective way to curtail the crisis is isolation.

The strategy and recommendations for isolation suggested in this proposal are based on the World Health Organization (WHO) and Center for Disease Control (CDC) guidelines.

SITUATIONAL ANALYSIS

Up to the date of the submission of this proposal, so far, no cases have been reported in Beit-Mery. However, nearby villages like Broumana, Ain-Saade, Bsalim and Mansourieh have already registered cases of positive PCR for COVID-19 testing. The Metn area also ranks among the highest areas in Lebanon (with Beirut and Keserwan) facing this issue.

Page | 6

MUNICIPALITY OF BEIT-MERY

The President of the Municipality of Beit-Mery, Lawyer Roy Abou-Chedid requested support for the enactment of a preparedness plan that will be used in case of a community outbreak in the village.

AVAILABLE RESOURCES

Human Resource

Key Partners & Players

The Ministry of Public Health
The Metn Mohafazat (District)
The Municipality of Beit-Mery
Saint Augustin Monastery
The Red Cross
The Elias Moukheiber Institute for Lebanon (EMIL)
National & International NGOs willing to assist
Arc-En-Ciel
Fight COVID-19 Campaign Members
Insan Association
Beit-el-Thawra
The community of Beit-Mery at large
Potential Donors

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Material Resource

The site has already been secured. Thank you to His Eminence Bishop Paul Abed el Sater, Archbishop of Beirut for the Maronite Patriarchate, who offered the annex at Saint Augustine's Monastery for the isolation project. It is fully equipped and operational. The environment is very pleasant and peaceful. Confinement in this setting offers all the necessary tools for a safe quarantine. All bedrooms have good ventilation with window views of the pine forest.

Page | 7

Location

The Monastery is in Ras-Kafra half-way between Beit-Mery and Ain Saade in a secluded pine tree area. It has 3 buildings and annexes including the church. One of the buildings proposed for isolation is far removed from the main complex and has a separate entrance that can be used by COVID-19 positive persons.

Physical Structure

A site-visit of the building revealed an excellent well-maintained infrastructure that was once used by priests for spiritual retreats. It has 2 fully furnished floors in perfect condition.

Ground floor

This floor has two entrances. The one in the back of the building could be used as a separate entrance for the COVID-19 positive residents.

SORTING OF CONFINED PERSONS

Selected facilities should have the physical capacity to sort out COVID-19 positive patients on a separate floor. COVID-19 suspected ones should be placed on a different floor.

First Floor

14 rooms each furnished with 2 single beds, a desk and a private bathroom. One bed will be left per room for isolation.

Second Floor

13 rooms each furnished with 2 single beds and a private bathroom. One bed will be left per room for isolation.

STRICTLY NO VISITORS ALLOWED

NO visitors are allowed at ALL – confined persons can be connected to the outside via their own phones or via a central operator if they do not possess phones.

The Municipality of Beit-Mery will prepare a WhatsApp group for all the residents in confinement that will help them stay connected with their caretakers, friends and families.

A SIGNED PATIENT CONSENT FORM WILL BE SIGNED FOR MEDICO-LEGAL PROTECTION

ROOMS

The confinement rooms should be kept to a minimum of 1 bed, 1 desk, 1 plastic chair, 1 tv and 1 phone in addition to the patient's laptop and mobile phone. **No carpets in rooms.**

Mattresses should have covers to be washed after each person in order to protect the mattresses.

Providing internet access is recommended.

One Kitchen

This will be used to transfer meals from the Central Kitchen.

One Multi-Disciplinary Room

To be used by the IPC team for infection control.

A Laundry Room Facility with 2 Washing Machines

One washing machine will be designated for the residents and used at the highest possible degree temperature (80 C and above if available.)

Patients will be encouraged to bring their own clothing supply for 2 weeks and have them washed separately at the end of their confinement.

Place each patients' laundry in a double trash bag, have it handed out to the trained IPC who will take it to a designated place for disinfection before placing it in another bag destined for either home cleaning or local cleaning by a trained housekeeper according to protection protocols.

On-site Coverage or Permanence

At least one Permanence on each floor.

Cleaning Team

It is very important to train a cleaning crew for safety measures per attached protocols (CDC).

Meals

Meals could be provided by NGOs who are willing to assist like Insan Association or other. The Municipality secured a central kitchen for this project.

Families could also provide meals for their relatives via the central kitchen if they wish to do so.

It would be advisable to use disposable items to minimize contamination.

Medical Visits / Follow-up

A Registered Nurse should be available daily to monitor vital signs and report to the attending physician cases that need follow-up.

A daily chart will be ready for every patient. This chart should be left in the room to avoid contamination on the floor.

Page | 10

Medical Equipment

Basic medical equipment like a stethoscope, a tensiometer and a pulse oximeter and thermometer could be left in each patient room if budget is available to purchase individual equipment. If not, these items should be sterilized according to the attached WHO guidelines after every patient's use.

TV Sets and Internet

The rooms currently do not have TV sets and internet. The Municipality is willing to provide them for the sake of making the confinement days a little less somber.

DISINFECTION OF ROOMS

Rooms need to be disinfected according to protocol and closed down for at least 24 hours before the admission of new residents (48 hours would be better).

Principles of Infection, Prevention & Control (IPC) Strategies Associated with Health Care for Suspected COVID-19

To achieve the highest level of effectiveness in response to the COVID-19 outbreak using the strategies and practices recommended in the WHO document, an IPC program with a dedicated and trained team or at least an IPC focal point should be in place and supported by the Ministry of Public Health, its relevant advisory committees and the Municipality of Beit-Mery Senior Management.

It is critical to start by ensuring that at least minimum requirements for IPC are in place as soon as possible, both at the national and facility level, and to gradually progress to the full achievement of all requirements of the IPC core components

according to local priorities. For the time being, in the case of Beit-Mery, the priority is in training the IPC team and securing both medical and logistical items.

TRAINING OF IPC WORKERS

This is key to safe and efficient management of COVID-19 cases in isolation:

The Municipality of Beit-Mery will recruit the following Infection, Prevention & Control (IPC) workers and will offer them either a 1-day training if previously trained on COVID-19 handling or a 2 days training for first timers.

Suggested Profile:

1. 2 to 4 Nurses (RN)
2. 2 to 4 MDs
3. 2 Social Workers/Admins
4. 2 Volunteers (permanence)
5. Cleaning crew (2 persons)
6. The Resident Priest

Total: N=10 minimum preferably 16 to 18

Trainer Experts

- Georges F. Saad, is an experienced RN with extensive experience and background in Emergency Preparedness & Disaster Management, he is the Ministry of Public Health National Expert on Preparedness and Disaster Management, Consultant Trainer for the WHO, Director of the LEAEM-SGHUMC Emergency Medical Training Center and SGHUMC – LAF- UNIFIL Helicopter Medevac & Operations Coordinator. He will assess the site, train and follow-up the IPC team of the Municipality of Beit-Mery.
- Mona Haddad, Safety & Infection Control expert founder of the Safety Department at SGHUMC. Currently a national Public Health Consultant on Safety and Infection Control. Mona will provide a session on hand hygiene and safety as well as on the proper handling of COVID-19 patients in their home confinement and in the isolation center.

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ANNEX 1 - WHO RECOMMENDATIONS & GUIDELINES

The following guidelines are extracted from the “WHO Infection prevention and control during health care when COVID-19 is suspected - Interim guidance 19 March 2020”

***Note**

This is the first edition of guidance on infection prevention and control (IPC) strategies for use when COVID-19 is suspected. It has been adapted from WHO’s Infection Prevention and Control during health care for probable or confirmed cases of Middle East Respiratory Syndrome Coronavirus (MERS-CoV) infection, based on current knowledge of the situation and experience with severe acute respiratory syndrome (SARS) and MERS.

This guidance is intended for health care workers (HCWs), health care managers, and IPC teams at the facility level but it is also relevant for national and district levels.

IPC Strategies to Prevent or Limit Transmission in Health Care Settings Include the Following:

- ❖ Ensuring triage, early recognition, and source control (isolating patients with suspected COVID-19)
- ❖ Applying standard precautions for all patients
- ❖ Implementing additional precautions (droplet and contact and, whenever applicable, airborne precautions) for suspected cases of COVID-19
- ❖ Implementing administrative controls
- ❖ Using environmental and engineering controls

↔ Ensuring Triage, Early Recognition, and Source Control (For Hospitals – not discussed in this document)

↔ Applying Standard Precautions for All Patients

Page | 13

Standard precautions include hand and respiratory hygiene, the use of appropriate personal protective equipment (PPE) according to a risk assessment, injection safety practices, safe waste management, proper linens, environmental cleaning, and sterilization of patient-care equipment.

Ensure that the following respiratory hygiene measures are used:

- ✓ Ensure that all patients cover their nose and mouth with a tissue or elbow when coughing or sneezing
- ✓ Offer a medical mask to patients with suspected COVID-19 while they are in waiting/public areas or in cohorting rooms
- ✓ Perform hand hygiene after contact with respiratory secretions
- ✓ HCWs should apply WHO's "My 5 Moments for Hand Hygiene" approach before touching a patient, before any clean or aseptic procedure is performed, after exposure to body fluid, after touching a patient, and after touching a patient's surroundings
- ✓ Hand hygiene includes washing hands with soap and water for a full 20 seconds or cleansing hands with an alcohol-based hand rub.
- ✓ Alcohol-based hand rubs are preferred if hands are not visibly soiled

Infection Prevention and Control During Health Care when COVID-19 is Suspected: Interim Guidance

- ✓ Wash hands with soap and water when they are visibly soiled

- ✓ The rational, correct, and consistent use of PPE also helps reduce the spread of pathogens. PPE effectiveness depends strongly on adequate and regular supplies, adequate staff training, appropriate hand hygiene, and appropriate human behavior
- ✓ It is important to ensure that environmental cleaning and disinfection procedures are followed consistently and correctly. Thoroughly cleaning environmental surfaces with water and detergent and applying commonly used hospital level disinfectants (such as sodium hypochlorite) are effective and sufficient procedures
- ✓ Medical devices and equipment, laundry, food service utensils, and medical waste should be managed in accordance with safe routine procedures

↔Implementing Additional Precautions

Contact and Droplet Precautions

- ✓ In addition to using standard precautions, all individuals, including family members, visitors and HCWs, should use contact and droplet precautions before entering the room of suspected or confirmed COVID-19 patients
- ✓ Patients should be placed in adequately ventilated single rooms. For general ward rooms with natural ventilation, adequate ventilation is considered to be 60 L/s per patient
- ✓ When single rooms are not available, patients suspected of having COVID-19 should be grouped together
- ✓ All patients' beds should be placed at least 2-meter apart regardless of whether they are suspected to have COVID-19
- ✓ Where possible, a team of HCWs should be designated to care exclusively for suspected or confirmed cases to reduce the risk of transmission
- ✓ HCWs should use a medical mask

- ✓ HCWs should wear eye protection (goggles) or facial protection (face shield) to avoid contamination of mucous membranes
- ✓ HCWs should wear a clean, non-sterile, long-sleeved gown
- ✓ HCWs should also use gloves
- ✓ The use of boots, coverall, and apron is not required during routine care
- ✓ After patient care, appropriate doffing and disposal of all PPE and hand hygiene should be carried out
- ✓ A new set of PPE is needed when care is given to a different patient
- ✓ Equipment should be either single-use and disposable or dedicated equipment
- ✓ (e.g. stethoscopes, blood pressure cuffs, oximeters and thermometers). If equipment needs to be shared among patients, clean and disinfect it between use for each individual patient (e.g. by using ethyl alcohol 70%).
- ✓ Medical masks are surgical or procedure masks that are flat or pleated (some are like cups); they are affixed to the head with straps.
- ✓ HCWs should refrain from touching eyes, nose, or mouth with potentially contaminated gloved or bare hands
- ✓ Avoid moving and transporting patients out of their room or area unless medically necessary. Use designated portable X-ray equipment or other designated diagnostic equipment. If transport is required, use predetermined transport routes to minimize exposure for staff, other patients and visitors, and have the patient wear a medical mask
- ✓ Ensure that HCWs who are transporting patients perform hand hygiene and wear appropriate PPE as described in this section

- ✓ Notify the area receiving the patient of any necessary precautions as early as possible before the patient's arrival
- ✓ Routinely clean and disinfect surfaces with which the patient is in contact
- ✓ Limit the number of HCWs, family members, and visitors who are in contact with suspected or confirmed COVID-19 patients
- ✓ Maintain a record of all persons entering a patient's room, including all staff and visitors

↔Implementing Administrative Controls

Administrative Measures Related to Health Care Workers

- ✓ Provision of adequate training for HCWs
- ✓ Ensuring an adequate patient-to-staff ratio
- ✓ Establishing a surveillance process for acute respiratory infections potentially caused by COVID-19 virus among HCWs
- ✓ Ensuring that HCWs and the public understand the importance of promptly seeking medical care
- ✓ Monitoring HCW compliance with standard precautions and providing mechanisms for improvement as needed

↔Using environmental and engineering controls

- ✓ These controls address the basic infrastructure of the health care facility and aim to ensure adequate ventilation in all areas in the health care facility, as well as adequate environmental cleaning
- ✓ Additionally, separation of at least 2 meters should be maintained between all patients. Both spatial separation and adequate ventilation can help reduce the spread of many pathogens in the health care setting

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

Duration of Contact and Droplet Precautions for Patients with COVID-19

Standard precautions should be applied at all times

Additional contact and droplet precautions should continue until the patient is asymptomatic or the quarantine period is finished. More comprehensive information about the mode of virus transmission is required to define the duration of additional precautions.

Collecting and Handling Laboratory Specimens from Patients with Suspected COVID-19

- ✓ All specimens collected for laboratory investigations should be regarded as potentially infectious. HCWs who collect, handle, or transport clinical specimens should adhere rigorously to the following standard precaution measures and biosafety practices to minimize the possibility of exposure to pathogens
- ✓ Ensure that HCWs who collect specimens use appropriate PPE (i.e. eye protection, a medical mask, a long-sleeved gown, and gloves). If the specimen is collected during an aerosol-generating procedure, personnel should wear a particulate respirator at least as protective as a NIOSH-certified N95, an EU standard FFP2, or the equivalent
- ✓ Ensure that all personnel who transport specimens are trained in safe handling practices and spill decontamination procedures

- ✓ Place specimens for transport in leak-proof specimen bags (secondary containers) that have a separate sealable pocket for the specimen (a plastic biohazard specimen bag), with the patient's label on the specimen container (the primary container), and a clearly written laboratory request form
- ✓ Deliver all specimens by hand whenever possible. DO NOT use pneumatic-tube systems to transport specimens
- ✓ Document clearly each patient's full name, date of birth and "suspected COVID-19" on the laboratory request form. Notify the laboratory as soon as possible that the specimen is being transported

Recommendation for Outpatient Care

The basic principles of IPC and standard precautions should be applied in all health care facilities, including outpatient care and primary care. For COVID-19, the following measures should be adopted:

- ✓ Triage and early recognition
- ✓ Emphasis on hand hygiene, respiratory hygiene, and medical masks to be used by patients with respiratory symptoms
- ✓ Appropriate use of contact and droplet precautions for all suspected cases
- ✓ Prioritization of care of symptomatic patients
- ✓ When symptomatic patients are required to wait, ensure they have a separate waiting area
- ✓ Educate patients and families about the early recognition of symptoms, basic precautions to be used, and which health care facility they should go to

ANNEX 2 - Cleaning And Disinfecting Your Home Everyday Steps and Extra Steps When Someone Is Sick How to clean and disinfect (CDC – reference website see below link)



Wear disposable gloves to clean and disinfect.

Clean

- **Clean surfaces using soap and water.** Practice routine cleaning of frequently touched surfaces.

High touch surfaces include:

Tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, toilets, faucets, sinks, etc.



Disinfect

- Clean the area or item with soap and water or another detergent if it is dirty. Then, use a household disinfectant.
- **Recommend use of [EPA-registered household disinfectant external icon](#).** Follow the instructions on the label to ensure safe and effective use of the product.

Many products recommend:

- Keeping surface wet for a period of time (see product label)
 - Precautions such as wearing gloves and making sure you have good ventilation during use of the product.
-
- **Diluted household bleach solutions may also be used** if appropriate for the surface. Check to ensure the product is not past its expiration date. Unexpired household bleach will be effective against coronaviruses when properly diluted.

Follow manufacturer’s instructions for application and proper ventilation. Never mix household bleach with ammonia or any other cleanser.

Leave solution on the surface for **at least 1 minute**

To make a bleach solution, mix:

- 5 tablespoons (1/3rd cup) bleach per gallon of water
OR
- 4 teaspoons bleach per quart of water
- **Alcohol solutions with at least 70% alcohol.**

More details: [Complete Disinfection Guidance](#)



Soft surfaces

For soft surfaces such as **carpeted floor, rugs, and drapes**

- **Clean the surface using soap and water** or with cleaners appropriate for use on these surfaces.
- **Launder items** (if possible) according to the manufacturer’s instructions. Use the warmest appropriate water setting and dry items completely.

OR

- **Disinfect with an EPA-registered household disinfectant.** [These disinfectants external icon](#) meet EPA’s criteria for use against COVID-19.

Page | 21



Electronics

For electronics, such as **tablets, touch screens, keyboards, and remote controls.**

- Consider putting a **wipeable cover** on electronics
- Follow **manufacturer’s instruction** for cleaning and disinfecting
 - If no guidance, use alcohol-based wipes or sprays containing at least 70% alcohol. Dry surface thoroughly.



Laundry

For clothing, towels, linens and other items

- **Wear disposable gloves.**
- **Wash hands with soap and water** as soon as you remove the gloves.
- **Do not shake** dirty laundry.

- Launder items according to the manufacturer's instructions. Use the **warmest appropriate water setting** and dry items completely.
- Dirty laundry from a sick person **can be washed with other people's items**.
- Clean and **disinfect clothes hampers** according to guidance above for surfaces.



Clean hands often

- **Wash your hands often** with soap and water for 20 seconds.
 - Always wash immediately after removing gloves and after contact with a sick person.
- **Hand sanitizer:** If soap and water are not readily available and hands are not visibly dirty, use a hand sanitizer that contains at least 60% alcohol. However, if hands are visibly dirty, always wash hands with soap and water.
- **Additional key times to clean hands** include:
 - After blowing one's nose, coughing, or sneezing
 - After using the restroom
 - Before eating or preparing food
 - After contact with animals or pets
 - Before and after providing routine care for another person who needs assistance (e.g. a child)
- **Avoid touching** your eyes, nose, and mouth with unwashed hands.

When Someone is Sick



Bedroom and Bathroom

Keep **separate bedroom and bathroom for sick person** (if possible)

- The sick person should stay separated from other people in the home (as much as possible).
- **If you have a separate bedroom and bathroom:** Reduce cleaning to as-needed (e.g. soiled items and surfaces) to minimize the amount of contact with the sick person.
 - Caregivers can **provide personal cleaning supplies** to the sick person (if appropriate). Supplies include tissues, paper towels, cleaners, and [EPA-registered disinfectants external icon](#).
- **If shared bathroom:** Clean and disinfect after each use by the sick person. If this is not possible, the caregiver should wait as long as possible before cleaning and disinfecting.
- See [precautions for household members and caregivers](#) for more information.



Food

- **Stay separated:** The sick person should eat (or be fed) in their room if possible.
- **Wash dishes and utensils using gloves and hot water:** Handle any non-disposable used food service items with gloves and wash with hot water or in a dishwasher.

[Clean hands](#) after handling used food service items.



Trash

- **Dedicated, lined trash can:** If possible, dedicate a lined trash can for the sick person. Use gloves when removing garbage bags, and handling and disposing of trash. Wash hands afterwards.

More details: [Complete Disinfection Guidance](#)

References

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Page | 25

WHO reference number: WHO/2019-nCoV/IPC/2020

WHO continues to monitor the situation closely for any changes that may affect this interim guidance. Should any factors change, WHO will issue a further update. Otherwise, this interim guidance document will expire 2 years after the date of publication.

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/disinfecting-your-home.html>
<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cleaning-disinfection.html>