Home care for patients with COVID-19 presenting with mild symptoms and management of their contacts

Interim guidance 17 March 2020



Background

WHO has developed this interim guidance to meet the need for recommendations on safe home care for patients with suspected COVID-19 who present with mild symptoms^a and on public health measures related to the management of their contacts.

This document was adapted from the interim guidance on Middle East respiratory syndrome coronavirus (MERS-CoV) infection that was published in June 2018¹ and is informed by evidence-based guidelines published by WHO, including Infection prevention and control of epidemic- and pandemic-prone acute respiratory diseases in health care,² and based on current information on COVID-19.

This rapid advice has been updated with the latest information and is intended to guide public health and infection prevention and control (IPC) professionals, health care managers and health care workers (HCWs) when addressing issues related to home care for patients with suspected COVID-19 who present with mild symptoms and when managing their contacts. This guidance is based on evidence about COVID-19 and the feasibility of implementing IPC measures at home. For the purpose of this document, "caregivers" refers to parents, spouses, and other family members or friends without formal health care training.

Please refer to the Global Surveillance for human infection with coronavirus disease (COVID-19) for case definitions. Please refer to Infection prevention and control during health care when COVID-19 is suspected for guidance on IPC at the health care facility level.

Where to manage COVID-19 patients

WHO recommends that all laboratory confirmed cases be isolated and cared for in a health care facility. WHO recommends that all persons with suspected COVID-19 who have severe acute respiratory infection be triaged at the first point of contact with the health care system and that emergency treatment should be started based on disease severity. WHO has updated treatment guidelines for patients with ARI associated with COVID-19, which includes guidance for vulnerable populations (e.g., older adults, pregnant women and children). In situations where isolation in a health care facility of all cases is not possible, WHO emphasizes the prioritization of those with highest probability of poor outcomes: patients with severe and critical illness and

^a Mild illness may include: uncomplicated upper respiratory tract viral infection symptoms such as fever, fatigue, cough (with or without sputum production), anorexia, malaise, muscle pain, sore

those with mild disease and risk for poor outcome (age >60 years, cases with underlying co-morbidities, e.g., chronic cardiovascular disease, chronic respiratory disease, diabetes, cancer).

If all mild cases cannot be isolated in health facilities, then those with mild illness and no risk factors may need to be isolated in non-traditional facilities, such as repurposed hotels, stadiums or gymnasiums where they can remain until their symptoms resolve and laboratory tests for COVID-19 virus are negative. Alternatively, patients with mild disease and no risk factors can be managed at home.

Home care for patients with suspected COVID-19 who present with mild symptoms

For those presenting with mild illness, hospitalization may not be possible because of the burden on the health care system, or required unless there is concern about rapid deterioration.³ If there are patients with only mild illness, providing care at home may be considered, as long as they can be followed up and cared for by family members. Home care may also be considered when inpatient care is unavailable or unsafe (e.g. capacity is limited, and resources are unable to meet the demand for health care services).

In any of these situations, patients with mild symptoms¹ and without underlying chronic conditions – such as lung or heart disease, renal failure, or immunocompromising conditions that place the patient at increased risk of developing complications – may be cared for at home. This decision requires careful clinical judgment and should be informed by an assessment of the safety of the patient's home environment.^b

In cases in which care is to be provided at home, if and where feasible, a trained HCW should conduct an assessment to verify whether the residential setting is suitable for providing care; the HCW must assess whether the patient and the family are capable of adhering to the precautions that will be recommended as part of home care isolation (e.g., hand hygiene, respiratory hygiene, environmental cleaning, limitations on movement around or from the house) and can address safety concerns (e.g., accidental ingestion of and fire hazards associated with using alcohol-based hand rubs).

If and where feasible, a communication link with health care provider or public health personnel, or both, should be established for the duration of the home care period – that is, until the patient's symptoms have completely resolved. More

throat, dyspnea, nasal congestion, or headache. Rarely, patients may also present with diarrhoea, nausea, and vomiting.

^b A sample checklist for assessing environmental conditions in the home is available in the Annex C of reference 2.

comprehensive information about COVID-19 and its transmission is required to define the duration of home isolation precautions.

Patients and household members should be educated about personal hygiene, basic IPC measures, and how to care as safely as possible for the person suspected of having COVID-19 to prevent the infection from spreading to household contacts. The patient and household members should be provided with ongoing support and education, and monitoring should continue for the duration of home care. Household members should adhere to the following recommendations.

- Place the patient in a well-ventilated single room (i.e. with open windows and an open door).
- Limit the movement of the patient in the house and minimize shared space. Ensure that shared spaces (e.g. kitchen, bathroom) are well ventilated (keep windows open).
- Household members should stay in a different room or, if that is not possible, maintain a distance of at least 1 metre from the ill person (e.g. sleep in a separate bed).^c
- Limit the number of caregivers. Ideally, assign one person who is in good health and has no underlying chronic or immunocompromising conditions.³ Visitors should not be allowed until the patient has completely recovered and has no signs or symptoms of COVID-19.
- Perform hand hygiene after any type of contact with patients or their immediate environment.⁴ Hand hygiene should also be performed before and after preparing food, before eating, after using the toilet, and whenever hands look dirty. If hands are not visibly dirty, an alcohol-based hand rub can be used. For visibly dirty hands, use soap and water.
- When washing hands with soap and water, it is preferable to use disposable paper towels to dry hands. If these are not available, use clean cloth towels and replace them frequently.
- To contain respiratory secretions, a medical mask^d should be provided to the patient and worn as much as possible, and changed daily. Individuals who cannot tolerate a medical mask should use rigorous respiratory hygiene; that is, the mouth and nose should be covered with a disposable paper tissue when coughing or sneezing. Materials used to cover the mouth and nose should be discarded or cleaned appropriately after use (e.g. wash handkerchiefs using regular soap or detergent and water).
- Caregivers should wear a medical mask that covers their mouth and nose when in the same room as the patient. Masks should not be touched or handled during use. If the mask gets wet or dirty from secretions, it must be replaced immediately with a new clean, dry mask.

^c An exception may be made for breastfeeding mothers. Considering the benefits of breastfeeding and the insignificant role of breast milk in the transmission of other respiratory viruses, a mother could can continue breastfeeding. The mother should wear a medical mask when she is near her baby and perform hand hygiene before and after having close contact with the baby. She will also need to follow the other hygiene measures described in this document.

- Remove the mask using the appropriate technique that is, do not touch the front, but instead untie it. Discard the mask immediately after use and perform hand hygiene.
- Avoid direct contact with body fluids, particularly oral or respiratory secretions, and stool. Use disposable gloves and a mask when providing oral or respiratory care and when handling stool, urine, and other waste. Perform hand hygiene before and after removing gloves and the mask.
- Do not reuse masks or gloves.
- Use dedicated linen and eating utensils for the patient; these items should be cleaned with soap and water after use and may be re-used instead of being discarded.
- Daily clean and disinfect surfaces that are frequently touched in the room where the patient is being cared for, such as bedside tables, bedframes, and other bedroom furniture. Regular household soap or detergent should be used first for cleaning, and then, after rinsing, regular household disinfectant containing 0.1% sodium hypochlorite (i.e. equivalent to 1000 ppm) should be applied.
- Clean and disinfect bathroom and toilet surfaces at least once daily. Regular household soap or detergent should be used first for cleaning, and then, after rinsing, regular household disinfectant containing 0.1% sodium hypochlorite should be applied.
- Clean the patient's clothes, bed linen, and bath and hand towels using regular laundry soap and water or machine wash at 60–90 °C (140–194 °F) with common household detergent, and dry thoroughly. Place contaminated linen into a laundry bag. Do not shake soiled laundry and avoid contaminated materials coming into contact with skin and clothes.
- Gloves and protective clothing (e.g. plastic aprons) should be used when cleaning surfaces or handling clothing or linen soiled with body fluids. Depending on the context, either utility or single-use gloves can be used. After use, utility gloves should be cleaned with soap and water and decontaminated with 0.1% sodium hypochlorite solution. Single-use gloves (e.g. nitrile or latex) should be discarded after each use. Perform hand hygiene before putting on and after removing gloves.
- Gloves, masks, and other waste generated during home care should be placed into a waste bin with a lid in the patient's room before disposing of it as infectious waste. The onus of disposal of infectious waste resides with the local sanitary authority.
- Avoid other types of exposure to contaminated items from the patient's immediate environment (e.g. do not share toothbrushes, cigarettes, eating utensils, dishes, drinks, towels, washcloths, or bed linen).

^d Medical masks are surgical or procedure masks that are flat or pleated (some are shaped like a cup); they are held in place by strings that tie around the back of the head.

^e The local sanitary authority should adopt measures to ensure that the waste is disposed of at a sanitary landfill and not at an unmonitored open dump.

- When HCWs provide home care, they should perform a risk assessment to select the appropriate personal protective equipment and follow the recommendations for droplet and contact precautions.
- For mild laboratory confirmed patients who are cared for at home, to be released from home isolation, cases must test negative using PCR testing twice from samples collected at least 24 hours apart. Where testing is not possible, WHO recommends that confirmed patients remain isolated for an additional two weeks after symptoms resolve.

Management of contacts

Persons (including caregivers and HCWs) who have been exposed to individuals with suspected COVID-19 are considered contacts and should be advised to monitor their health for 14 days from the last day of possible contact.

A contact is a person who is involved in any of the following from 2 days before and up to 14 days after the onset of symptoms in the patient:⁵

- Having face-to-face contact with a COVID-19 patient within 1 meter and for >15 minutes;
- Providing direct care for patients with COVID-19 disease without using proper personal protective equipment;
- Staying in the same close environment as a COVID-19 patient (including sharing a workplace, classroom or household or being at the same gathering) for any amount of time;
- Travelling in close proximity with (that is, within 1 m separation from) a COVID-19 patient in any kind of conveyance;
- and other situations, as indicated by local risk assessments.

A way for caregivers to communicate with a health care provider should be established for the duration of the observation period. Also, health care personnel should review the health of contacts regularly by phone but, ideally and if feasible, through daily in-person visits, so specific diagnostic tests can be performed as necessary.

The health care provider should give instructions to contacts in advance about when and where to seek care if they become ill, the most appropriate mode of transportation to use, when and where to enter the designated health care facility, and which IPC precautions should be followed.

If a contact develops symptoms, the following steps should be taken.

- Notify the receiving medical facility that a symptomatic contact will be arriving.
- While traveling to seek care, the contact should wear a medical mask.
- The contact should avoid taking public transportation to the facility if possible; an ambulance can be called, or the ill contact can be transported in a private vehicle with all windows open, if possible.
- The symptomatic contact should be advised to perform respiratory hygiene and hand hygiene and to stand or sit

- as far away from others as possible (at least 1 metre) when in transit and when in the health care facility.
- Any surfaces that become soiled with respiratory secretions or other body fluids during transport should be cleaned with soap or detergent and then disinfected with a regular household product containing a 0.5% diluted bleach solution.

Acknowledgements

The original version of the MERS-CoV IPC guidance (1) that constituted the basis for this document was developed in consultation with WHO's Global Infection Prevention and Control Network and other international experts. WHO thanks those who were involved in developing the IPC documents for MERS-CoV.

WHO thanks the following individuals for providing review: Abdullah M Assiri, Director General, Infection Control, Ministry of Health, Saudi Arabia; Michael Bell, Deputy Director of the Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention, Atlanta, GA, USA; Gail Carson, ISARIC Global Support Centre, Director of Network Development, Consultant in Infectious Diseases, and Honorary Consultant with Public Health England, United Kingdom; John M Conly, Department of Medicine, Microbiology, Immunology and Infectious Diseases, Calvin, Phoebe and Joan Snyder Institute for Chronic Diseases, Faculty of Medicine, University of Calgary, Calgary, Canada; Barry Cookson, Division of Infection and Immunity, University College London, United Kingdom; Babacar NDoye, Board Member, Infection Control Network, Senegal; Kathleen Dunn. Manager, Dakar, Healthcare-Associated Infections and Infection Prevention and Control Section, Centre for Communicable Disease Prevention and Control, Public Health Agency of Canada; Dale Fisher, Global Outbreak Alert and Response Network Steering Committee; Fernanda Lessa, Epidemiologist, Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention, Atlanta, GA, USA; Moi Lin Ling, Director, Infection Control Department, Singapore General Hospital, Singapore, and President of Asia Pacific Society of Infection Control; Didier Pittet, Director, Infection Control Program and WHO Collaborating Centre on Patient Safety, University of Geneva Hospitals, and Faculty of Geneva, Fernando Otaiza O'Ryan, Head, National IPC Program, Ministry of Health, Santiago, Chile; Diamantis Plachouras, Unit of Surveillance and Response Support, European Centre for Disease Prevention and Control, Solna, Sweden; Wing Hong Seto, Department of Community Medicine, School of Public Health, University of Hong Kong, China, Hong Kong Special Administrative Region; Nandini Shetty, Consultant Microbiologist, Reference Microbiology Services, Health Protection Agency, Colindale, United Kingdom; Rachel M. Smith, Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention, Atlanta, GA, USA.

From WHO we also thank:

Benedetta Allegranzi, Gertrude Avortri, April Baller, Ana Paula Coutinho, Nino Dal Dayanghirang, Christine Francis, Pierre Clave Kariyo, Maria Clara Padoveze, Joao Paulo Toledo, Nahoko Shindo, Valeska Stempliuk, and Maria Van Kerkhove.

References

- World Health Organization. Home care for patients with Middle East respiratory syndrome coronavirus (MERS-CoV) infection presenting with mild symptoms and management of contacts: interim guidance (accessed 26 January 2020).
- World Health Organization. <u>Infection prevention and control of epidemic- and pandemic-prone acute respiratory diseases in health care.</u> (accessed 26 January 2020).
- 3. World Health Organization. Clinical management of severe acute respiratory infection (SARI) when COVID-19 disease is suspected. Geneva: World Health Organization; 2020 (accessed 17 March 2020).
- 4. World Health Organization. WHO guidelines on hand hygiene in health care: first global patient safety challenge. (accessed 20 January 2020).
- 5. World Health Organization. <u>Global surveillance for human infection with novel coronavirus (2019-nCoV): interim guidance</u> (accessed 17 March 2020).

Further references

World Health Organization. <u>Management of asymptomatic</u> persons who are RT-PCR positive for Middle East respiratory syndrome coronavirus (MERS-CoV): interim guidance, (accessed 20 January 2020).

World Health Organization. <u>Clinical management of severe acute respiratory infection when Middle East respiratory syndrome coronavirus (MERS-CoV) infection is suspected: interim guidance</u>, (accessed 20 January 2020).

World Health Organization. <u>Infection prevention and control during health care for probable or confirmed cases of Middle East respiratory syndrome coronavirus (MERS-CoV) infection: interim guidance</u>. (accessed 20 January 2020).

Atkinson J, Chartier Y, Pessoa-Silva CL, Jensen P, Li Y, Seto WH, editors. Natural ventilation for infection control in health-care settings: WHO guidelines 2009. Geneva: World

Health Organization; 2009 (http://apps.who.int/iris/handle/10665/44167, accessed 20 January 2020).

Laboratory testing for 2019 novel coronavirus (2019-nCoV) in suspected human cases: interim guidance, 17 January 2020. Geneva: World Health Organization; 2020 (https://apps.who.int/iris/handle/10665/330676, accessed 20 January 2020).

Chan JF, Yuan S, Kok KH, To KK, Chu H, Yang J, et al. A familial cluster of pneumonia associated with the 2019 novel coronavirus indicating person-to-person transmission: a study of a family cluster. Lancet. 2020. doi: 10.1016/S0140-6736(20)30154-9.

Drosten C, Meyer B, Müller MA, Corman VM, Al-Masri M, Hossain R, et al. Transmission of MERS-coronavirus in household contacts. N Engl J Med. 2014;371:828-35. doi:10.1056/NEJMoa1405858.

Health Protection Agency (HPA) UK Novel Coronavirus Investigation Team. Evidence of person-to-person transmission within a family cluster of novel coronavirus infections, United Kingdom, February 2013. Euro Surveill. 2013; 18(11): 20427. doi:10.2807/ese.18.11.20427-en.

Hung C, Wang Y, Li X, Ren L, Yhao J, Hu Y, et al. Clinical features of patients infected with 2019 coronavirus in Wuhan, China. Lancet. 2020. doi:10.1016/S0140-6736(20)30183-5.

Li Q, Guan X, Wu P, Zhou L, Tong Y, Ren R, et al. Early transmission dynamics in Wuhan, China, of novel coronavirus—infected pneumonia. N Engl J Med. 2020. doi:10.1056/NEJMoa2001316.

Omrani AS, Matin MA, Haddad Q, Al-Nakhli D, Memish ZA, Albarrak AM. A family cluster of Middle East respiratory syndrome coronavirus infections related to a likely unrecognized asymptomatic or mild case. Int J Infect Dis. 2013;17(9):e668-72. doi:10.1016/j.ijid.2013.07.001.

Ren LL, Wang YM, Wu YQ, Xiang YC, Guo L, Xu T, et al. Identification of a novel coronavirus causing severe pneumonia in human: a descriptive study. Chin Med J (Engl). 2020. doi:10.1097/CM9.00000000000000722.

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.

© World Health Organization 2020. Some rights reserved. This work is available under the CC BY-NC-SA 3.0 IGO licence.