

A health care professional must wear a medical mask or full PPE when visiting a nursing home during the COVID-19 pandemic.

Title	COVID-19 protective measures for visiting a nursing home/long-term care facility.
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Clinical scenario	A healthcare professional must visit a patient living in a nursing home during the COVID-19 pandemic.
Answerable question (PICO/PIRT/PEO/...)	P: health care professionals and residents of long-term care facilities I: protective measures to prevent transmission of COVID-19 O: prevention of transmission in both directions
Search terms	<ul style="list-style-type: none"> • Pubmed: ("COVID-19" [Supplementary Concept]) OR ("severe acute respiratory syndrome coronavirus 2" [Supplementary Concept]) AND ("prevention and control" [Subheading]) • Embase: 'sars coronavirus'/exp AND 'prevention'/exp AND [1-11-2019]/sd NOT [21-3-2020]/sd • Cochrane: (covid-19):ti,ab,kw OR (severe acute respiratory syndrome coronavirus 2):ti,ab,kw (Word variations have been searched) Using filters '2019' and 2020'.
Search date	20/03/2020
Search outcome (number of hits)	Pubmed: 56, Embase: 21 Selection criteria: studies with children and pregnant women were excluded. Articles in English containing recommendations on preventive measures were included.
Relevant papers (number of final inclusions)	Two final inclusions. The database search did not yield enough relevant results. A broad search of prominent guidelines was performed with a google search using the search terms: 'long-term care facilities', 'covid-19', 'guidelines', 'CDC', 'ECDC', 'WHO' Selection criteria: COVID-19 preventive measures in long-term care facilities and general COVID-19 personal protective measures for health care workers. Five guidelines were included.
Flow chart	Initial search:

	<ul style="list-style-type: none">• 77 articles found• → 36 excluded based on title• → 11 excluded based on abstract• → 28 excluded based on full text• → 2 articles included Broader guideline search: <ul style="list-style-type: none">• → 5 guidelines included
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Evidence Table 1: database search

DATABASE	Title	Author, date, country	Study type	Main risks of bias	Patient characteristics	Intervention	Comparison	Outcome	Key results:
PUBMED	How to train the health personnel for protecting themselves from novel coronavirus (COVID-19) infection during their patient or suspected case care.	Huh S., 17/01/2020 South Korea	Editorial on guidelines	Opinion of one expert on protection guidelines for healthcare workers	Suspected or confirmed COVID-19	Protection	/	/	Health care workers caring for a suspected case should use a respirator equivalent to N95 or equal level, disposable gloves, a disposable long arm gown, whole body protective clothing and safety glasses or a face shield.
PUBMED	Epidemiology, causes, clinical manifestation and diagnosis, prevention and control of coronavirus disease (COVID-19) during the early outbreak period: a scoping review.	Adhikari SP, 17/03/2020 China	Scoping Review (65 research articles published before 31 January 2020 were analyzed and discussed)	Differences in language domains: most Chinese articles cover prevention and control, while most English articles cover epidemiology	Patients with Sars-CoV-2	Cause, Epidemiology, Clinical manifestations, Diagnosis and Prevention & Control,	/	/	Health care workers are recommended to use medical masks while providing any care to suspected or confirmed cases. According to this guideline, individuals with respiratory symptoms are advised to use medical masks both in health care and home care settings properly following the infection prevention guidelines. According to this guideline, an individual without respiratory symptoms is not required to wear a medical mask when in public.

Evidence Table 2: guideline search

ASSOCIATION	Title	Author, date, country	Study type	Source material	Main risks of bias	Patient characteristics	Intervention	Key results:
JAMDA (Journal of the American Medical Director Association)	Long-Term Care Facilities and the Coronavirus Epidemic: Practical Guidelines for a Population at Highest Risk.	Dosa,D., 13/03/20, USA	Guideline	Based on CDC guidelines	Based on other guidelines . No systematic literature search.	Health care professionals and residents of long-term care facilities	Precaution measures	<ul style="list-style-type: none"> Suspected COVID-19 → wear gowns, gloves, facemask, and eye protection.
CDC (Centers for Disease Control and Prevention)	Preparing for COVID-19: Long-term Care Facilities, Nursing Homes	CDC, Last updated 21/03/20, USA	Guideline	Based on previous CDC guidelines and current available information about COVID-19	Based on expert opinions. No systematic literature search.	Health care personnel and residents of long-term care facilities	Monitoring and restrictions as prevention measure	<ul style="list-style-type: none"> COVID-19 in community (country) → Universal use of face masks when in the facility COVID-19 cases in facility → Consider having HCP wear all recommended PPE (gown, gloves, eye protection, N95 respirator or, if not available, a facemask) for the care of all residents, regardless of presence of symptoms. Implement protocols for extended use of eye protection and facemasks. As part of routine practice, ask HCP (including consultant personnel) to regularly monitor themselves for fever and symptoms. Avoid working while ill Dedicated medical equipment should be used when caring for patients with known or suspected COVID-19.
AMDA (The Society For	AMDA Guidance on	AMDA Last	Guideline	Based on CDC Guidelines	Based on other	Employees of long-term care	Prevention measures	<ul style="list-style-type: none"> Avoid working while ill Screen staff at entry into the facility for respiratory

Post-Acute and Long-Term Care Medicine)	COVID-19 in Post-Acute and Long-Term Care Settings	updated 05/03/20, USA			guidelines . No systematic literature search.	facilities		signs and symptoms and fever.
ECDC (European Center for Disease Prevention and Control)	Infection prevention and control for COVID-19 in healthcare settings	ECDC, 12/03/20, Sweden	Guideline	Interim advice produced by WHO, national agencies and expert opinion	Based on expert opinions.	Health care professionals, staff and patients in health care facilities, including long term care facilities	Prevention and control measures in healthcare facilities	<ul style="list-style-type: none"> • LTFC-patient with Covid-19 symptoms <ul style="list-style-type: none"> • Healthcare workers in contact with residents with respiratory infections should wear PPE: eye protection (i.e. goggles or face shield), long-sleeved water-resistant gown, and gloves. • Face masks (surgical masks) are recommended when treating a patient with respiratory symptoms. • Healthcare workers should strictly follow the procedures for the wearing (donning) and the safe removal (doffing) of PPE in correct sequence. Active assistance during donning and doffing is a valid option for minimising the risk of accidental contamination. • Hand hygiene should be performed immediately after removing PPE.
WHO	Infection prevention and control during health care when COVID-19 is suspected	WHO, 19/03/20, Switzerland	Guideline	Adapted from WHO's guidelines for MERS-CoV infection, based on current COVID-19 knowledge and experiences with SARS-CoV and MERS-CoV.	Based on expert opinions. No systematic literature search.	Health care professionals	Prevention and control measures	<ul style="list-style-type: none"> • No specific guidelines for long term care facilities. • Suspected or confirmed COVID-19 → HCWs should use a medical mask, eye protection (goggles) or facial protection (face shield), a clean, non-sterile, long-sleeved gown and gloves. • Equipment should be either single-use and disposable or dedicated equipment. If equipment needs to be shared → clean and disinfect it between use

Conclusions of overall body of evidence:

Main results of database search	Risks of bias
<ul style="list-style-type: none"> Use surgical masks while providing care to all patients with suspected or confirmed COVID-19 	<ul style="list-style-type: none"> Expert opinions Insufficient number of articles
<ul style="list-style-type: none"> When providing care to suggested Covid-19-positive patients, health care workers should use a respirator equivalent to N95 or equal level, disposable gloves, a disposable long arm gown, whole body protective clothing and safety glasses or a face shield 	<ul style="list-style-type: none"> Expert opinions
Main results of guideline search	Risks of bias
<ul style="list-style-type: none"> If health care worker and patient are asymptomatic and COVID-19 in community, use face mask when in the facility 	<ul style="list-style-type: none"> Expert Opinions: CDC
<ul style="list-style-type: none"> If health care worker and patient are asymptomatic and COVID-19 cases are in the facility, consider wearing all recommended PPE (gown, gloves, eye protection, FFP2/N95 respirator or, if not available, a facemask) 	<ul style="list-style-type: none"> Expert opinions: CDC
<ul style="list-style-type: none"> If patient has respiratory symptoms or fever, wear all recommended PPE (gown, gloves, eye protection, FFP2/N95 respirator or, if not available, a facemask) 	<ul style="list-style-type: none"> Expert opinions: JAMDA, ECDC, WHO
<ul style="list-style-type: none"> Screen staff at entry into the facility for respiratory signs and symptoms and fever. 	<ul style="list-style-type: none"> Expert opinions: AMDA
<ul style="list-style-type: none"> If health care worker has respiratory symptoms or fever, avoid working while ill, self monitor for symptoms and fever before entering the facility. 	<ul style="list-style-type: none"> Expert opinions: CDC, AMDA

Clinical bottom line:

Based on expert opinion, a health care professional visiting a patient in a long-term care facility during the COVID-19 outbreak should always be following strict hygienic measures and wear a medical face mask to protect the residents. If there are known COVID-19 cases in the facility or if the patient has respiratory symptoms or a fever, the professional should

wear all recommended personal protection equipment (gown, gloves, eye protection, FFP2/N95 respirator or, if not available, a facemask).

References

1. How to train the health personnel for protecting themselves from novel coronavirus (COVID-19) infection during their patient or suspected case care; Huh S.; 17/01/2020; South Korea; J Educ Eval Health Prof; <https://www.ncbi.nlm.nih.gov/pubmed/32150796>
2. Epidemiology, causes, clinical manifestation and diagnosis, prevention and control of coronavirus disease (COVID-19) during the early outbreak period: a scoping review; Adhikari SP et al.; 17/03/2020; China; Infect Dis Poverty; <https://www.ncbi.nlm.nih.gov/pubmed/32183901>
3. JAMDA: Journal of Post-Acute and Long-Term Care Medicine. Long-Term Care Facilities and the Coronavirus Epidemic: Practical Guidelines for a Population at Highest Risk. [https://www.jamda.com/article/S1525-8610\(20\)30249-8/fulltext](https://www.jamda.com/article/S1525-8610(20)30249-8/fulltext)
4. CDC: Centre for Disease Control. Preparing for COVID-19: Long-term Care Facilities, Nursing Homes <https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/prevent-spread-in-long-term-care-facilities.html>
5. AMDA (The Society For Post-Acute and Long-Term Care Medicine). Guidance on COVID-19 in Post-Acute and Long-Term Care Settings | updated: 03/05/2020 <https://paltc.org/sites/default/files/COVID-19%20Guidance%20Updated%20March%206.pdf>
6. European Centre for Disease Prevention and Control. Infection prevention and control for COVID-19 in healthcare settings – March 2020. ECDC: Stockholm; 2020.; <https://www.ecdc.europa.eu/en/publications-data/infection-prevention-and-control-covid-19-healthcare-settings#copy-to-clipboard>
7. World Health Organization. Infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected. 19/03/20 WHO: Geneva. [https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-\(ncov\)-infection-is-suspected-20200125](https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125)