

What can research evidence tell us about:

How facilities can adequately prepare to provide safe spaces and management for the elderly during the Covid-19 pandemic in LMICs

Key messages

- The Ministry of Health has to support facilities to exercise different infection prevention and control (IPC) measures

However, IPC measures might have a mental effect on the elderly patients. Therefore, there is need to plan for psychological support for the patients.
- Healthcare workers have to be aware of the ABCDs of a pandemic
 - A – Awareness** of how the disease presents in the elderly
 - B – Behavior** adjustments to prevent and control spread of the virus
 - C – Containment** practices to prevent spread of the virus
 - D – Decisions** making informed by most current information about the virus.
- Disease prognosis among the elderly is poor even with intensive care support especially among the frail with pre-existing medical conditions. Plans for palliative care thus have to be instituted for this population.

Where did this Rapid Response come from?

This document was created in response to a specific question from a policy maker in Uganda in 2019.

It was prepared by the Center for Rapid Evidence Synthesis (ACRES), at the Uganda country node of the Regional East African Community Health (REACH) Policy Initiative

+ Included:

- **Key findings** from research
- **Considerations about the relevance** of this research for health system decisions in Uganda

✗ Not included:

- Recommendations
- Detailed descriptions



Short summary

Background: Elderly population accounts for a big percentage of severe Covid-19 cases and deaths worldwide. Despite Uganda reporting 44 cases as of 1st April 2020 with no fatality, MoH is planning for the worst-case scenario, where cases increase in numbers and the senior citizens in the country get infected.

Question: How can facilities adequately prepare for the elderly during Covid-19 pandemic in LMICs?

Findings:

There are several measures that MoH and facilities can deploy to adequately prepare for the elderly during the Covid-19 pandemic;

1. Healthcare providers have to be aware of the ABCDs of a pandemic which are;
 - **A – Awareness** of how the disease presents differently in the elderly as compared to rest of the population so that they can adequately respond
 - **B – Behaviour** adjustments that not only protect the elderly from the virus but also the healthcare workers themselves
 - **C – Containment** preparation and readiness so prevent the entry of the virus within the facilities but as well to contain the virus in case there is an infected patient
 - **D – Decisions** made for the care of the patient should be communicated regularly and in a clear, honest and concise way. Healthcare workers and administrators have to keep abreast with the most current information so as to make the right decisions.
2. MoH has to support facilities to adequately exercise different infection prevention and control measures which are;
 - Setting up a system and service coordination for care provision
 - Develop and adhere to infection prevention measures
 - Adhere to physical distancing measures
 - Adequately respond to suspected and confirmed cases of Covid-19 among the elderly in facilities and at home
3. Plan for palliative care for the elderly as disease prognosis among the elderly even with intensive care support is poor.

These measures are complementary in nature and should be used concurrently.

Infection prevention and control measures use as the use of personal preventive equipment, isolation, and limiting visitations might have a mental effect on the elderly, and the facilities have to plan accordingly to offer psychological support to the elderly.

Conclusion:

In preparation for the elderly during Covid-19 pandemic, attention has to be paid to infection prevention measures and adequate equipment of healthcare workers with knowledge and skills to identify symptoms of Covid-19 among the elderly coupled with appropriate response. Plans for palliative care have to be instituted for the elderly as disease prognosis is poor in this age group.

Background

As of April 14, 2020, coronavirus disease 2019 (Covid-19) has caused over 1, 950,000 confirmed cases and 115,000 deaths worldwide [1] despite several countries putting in place measures to mitigate its spread. Uganda has reported 54 cases as of 14th April 2020 with no fatality. Older individuals are disproportionately affected by Covid-19 in several countries. Much as global statistics show that approximately 80% of infected cases have mild disease with very few symptoms or even none, in China, where scourge started there was a case fatality rate of 8% 70-79-year-old infected people, and this rate almost doubled for individuals aged 80 and above [2]. A similar trend has been observed in Italy where deaths are; 42.2% were 80-89 years old, 32.4% 70-79 years old and 8.4% were 60-69 year olds [3]. This is a very high case fatality rate among the elderly given the average global fatality rate stands at 3.4% [3].

The elderly population accounting for a large percentage of severe Covid-19 cases and deaths [4, 5] is not lost to policy makers in the Ministry of Health (MoH) in Uganda, and are therefore considering how to include appropriate and adequate prevention and control measures for covid-19 among elderly population. MoH is planning for mitigation measures in worst-case scenario, where cases increase in numbers and the senior citizens in the country get infected. This has prompted MoH officials who work on health considerations for the elderly to request for evidence on ***how facilities can adequately prepare to provide safe spaces and management for the elderly during the Covid-19 pandemic in Uganda.***

How this Rapid Response was prepared

After clarifying the question being asked, we searched for systematic reviews, local or national evidence from Uganda, and other relevant research. The methods used by the SURE Rapid Response Service to find, select and assess research evidence are described here:

www.evipnet.org/sure/rr/methods

Summary of findings

In this Rapid Response brief, we present evidence on the different measures that can be taken to prepare for the elderly during the Covid-19 pandemic. The evidence provided is from recommendations by the World Health Organisation, what other countries are doing or planning to do to cater for the elderly during this pandemic as well lessons from previous disease outbreaks and expert opinions. The expected impact of these strategies is not provided in this brief as all measures have been implemented as guidelines and impact is assumed from observed outcomes of implementing them. It should however be noted that information on Covid-19 changes frequently and therefore the current situation is fluid, many things can change in a matter of hours or days [6].

Facilities can undertake the following measures to prepare for the elderly during the Covid-19 pandemic:

- 1) Communicate the **Awareness, Behaviour, Containment, and Decisions (ABCDs)** of a pandemic to health care providers [6]
- 2) The facilities need to follow infection prevention and control guidelines [5]
- 3) Adequately plan for palliative care [7]

→ Health care providers understanding of ABCDs

Health care providers who are caring for the elderly need to understand the ABCDs of a pandemic if they are to respond appropriately and provide adequate care for the elderly. The ABCD's are basically **awareness** of key clinical features of Covid-19 in the elderly that are different from the general population, quickly initiating appropriate **behavior** to manage the infection in the elderly and initiation of **containment** measures to disrupt the spread of the infection. In addition to the above, policy makers, healthcare providers and leaders have to make **decisions** that aid in rapidly accessing tests and treatment during the Covid-19 infection.

A – Awareness [5, 6]

Health care providers must be aware of how the disease may present in the elderly different from the general population. The elderly who are frail with multiple other health conditions may be afebrile and may not have cough, sputum production or chest discomfort. They may present with delirium or altered mental status, tachypnea, unexplained tachycardia or hypotension. They may also present with malaise, low grade fever, muscle pains and cough which may progress to respiratory distress in week two of the infection. Existing ailments in some elderly patients such as history of stroke, dementia or other illness typically cover the signs and symptoms of Covid-19 infection and detection might have to be identification of any slight changes or deterioration in any of the existing ailments. Awareness of how the disease presents in the elderly is key for early identification and isolation of cases and thus cutting the transmission cycle.

B – Behaviour [5, 6, 8]

The behavior of health professionals has to change during this pandemic. As it is possible to be infected and exhibit mild or no symptoms, if health care professionals do not take precaution towards the prevention and control of Covid-19, then they can spread the infection to the elderly under their care. In addition, health care providers have to limit the number of visitors to the elderly under their care, screen all staff and visitors and practice all IPC measures given above.

Staff who work in multiple facilities can be a source of infection leading to inter- and interfacility spread of Covid-19. These should take extra caution and where possible limit movement between facilities.

C – Containment [5, 6, 8]

Prepare for containment in a facility by identifying key stakeholders and assigning them roles. There should be measures and adequate supplies for temporary management of a Covid-19 suspect and prevention of disease spread as relocation awaits. Health care workers should use PPE at all time and practice IPC measures.

D – Decisions [5, 6]

The different decisions to be taken in a facility that impacts on the patients' health or social wellbeing have to be communicated regularly and in a clear, honest and concise way. Facility administrators and healthcare providers need to remain informed of new developments about the disease by using official sources of information such WHO and MoH websites. Staff need to be encouraged to remain stay in self isolation if they have any symptoms of the infection to avoid spread to the elderly patients.

→ Infection prevention and control

While implementing the different infection prevention control measures at the health facilities such as use of PPE and restriction of visitors and group activities, attention has to be paid to the mental health of the patients and health workers. There should be deliberate efforts to minimise the potential effects of IPC on the mental health of patients [5]. This is because the elderly may become more anxious, angry, agitated, stressed and withdrawn during the pandemic and more so during isolation

when suspected to be sick or had contact with a confirmed Covid-19 case. Measures to protect mental health of patients and workers include [5];

- Provision of emotional and practical support to the elderly through the health care providers or families within limits.
- Provision of regular information to both patients and health care workers about the epidemic
- Put in place measures that protect staff from stress so that they can execute their role well such rest and recuperation for staff.

MoH has to support facilities to adequately exercise different infection prevention and control measures which are;

1. Infection prevention and Response [5, 6, 8, 9]

- Provide Covid-19 infection prevention to all employees in different facilities that provide care for the elderly.
- Encourage use of personal protective equipment (PPE) within and outside the facility. PPE equipment include N95 respiratory face masks, gowns, hand soaps, alcohol sanitizing solutions among others.
- Ensure that the elderly have adequate information about Covid-19
- Regularly audit the infection prevention and control measures implemented in different facilities.
- Have facilities develop and follow protocols that ensure maintenance of high hygiene standards and sanitation.
- Provide all required supplies for hand hygiene and require facilities to increase emphasis on hand hygiene and respiratory etiquette.
- Frequent disinfection of bed rails, bathrooms, hallway hand rails, showers, door knobs, stairway hand rails, elevators and other equipment used by both patients and staff using hospital grade disinfectant.
- Ensure staff are screened daily before entering a health facility.
- Respond timely according to early recognition of signs and symptoms of Covid-19 among the patients by isolating the individual and thus control potential spread of the infection.
- Notify authorities immediately in case of a suspected Covid-19 case as required by existing mandates.
- Restrict movement into and out of the facility. Institutionalized patients should only be moved for essential diagnostic and therapeutic tests only and restrict patient movement within the facility. The elderly who are not institutionalized can have their follow ups through telephone calls.
- Isolated cases in a care facility have to remain in isolation for at least 14 days after which two concurrent Covid-19 tests have to be negative in order for them to leave isolation.
- Ask all health care workers who develop a fever or any respiratory infection to report to the facility administration and stay home for at least 14 days and tested negative for the virus.
- Monitor temperature of institutionalized patients at least twice daily and request non-institutionalized patients to do the same.

2. Physical Distancing [5, 6, 9]

Facilities should be advised to;

- Screen all visitors for the elderly in facilities. Any visitor with signs or symptoms should not be allowed into the premises and should be referred to responsible authorities for follow up.
- Restrict the number of visitors as many cases of Covid-19 are asymptomatic but can spread the virus. Where it is not possible, restrict visitors to at least one at a time.
- Ensure there is social distancing while the elderly are in the facility by enforcing at least a 1metre distance between patients.
- Require residents in facilities or those that have come for follow up to avoid touching one another.
- For institutionalized patients, vary meal times to limit interaction between residents

3. System and service coordination for care provision [5]

- Activation of local health and social care networks such as clinics, acute-care hospitals,

volunteer groups, private institutions to facilitate continuous provision of care to the elderly during the pandemic.

- Mobilize for, facilitate and avail additional support such as resources and health care providers to provide care for the elderly especially when diagnosed with Covid-19 infection.

→ Palliative care for the elderly

Elderly patients are at a high risk of dying especially if they develop acute respiratory distress syndrome and require mechanical ventilation [4]. This is worsened by the fact that elderly are more likely to have multiple other illnesses e.g. diabetes, hypertension or cancers that further reduce their chances of surviving. Advanced planning for palliative care is therefore needed for the elderly before or at least when a case is diagnosed [4]. Palliative care improves quality of life of patients by relieving suffering of patients and their relatives through a comprehensive assessment and treatment of physical, psychosocial and spiritual symptoms experienced by patients [10]. Plans for palliative care have to be adopted to suit the country context. Health of elderly patients can deteriorate rapidly when they contact Covid-19, and this has to be put into consideration in planning. Prescription might have to be made in advance for any anticipated complication of Covid-19 infection among the elderly and documented in the emergency care plan for the patient.

Communication with the patients and, if he/ she wishes, their relatives and friends of their choosing has to be open, adequate, and sympathetic [7]. The explanations given to the patients have to be comprehensible, repeated and delivered in a stepwise manner to enable them develop realistic expectations, and express their wishes and decisions. Information that patients should be given includes; seriousness of Covid-19 infection, poor prognosis even with intensive care and the possibility of palliative care so that patients make an informed decision concerning their health [7]. The palliative care team needs to put in place plans to provide relatives to the patient with the necessary psychological support during the outbreak.

Table 1 shows the treatments recommended for the most common symptoms during a Covid-19 infection in the elderly. The impact of these treatments in palliation among Covid-19 patients is however not provided in literature. Their effects are however extrapolated from palliative care practices in patients with other diseases.

Table 1: Treatments recommendations for the most common symptoms during a Covid-19 infection in the elderly

Symptom	Measures	Notes
Fever	Paracetamol: 4× 500 mg tab/supp Metamizole: 4× 500–1000 mg tab/drops/supp	In addition, physical methods
Respiratory distress	Supplemental oxygen, if available Morphine 2%: 5 (–10) drops, up to hourly Morphine hydrochloride: 2.5–5 mg s.c., up to half-hourly with existing opioid treatment, increase doses accordingly	Let in fresh air Raise upper body Provide reassurance
Acute respiratory distress	In addition to morphine: Midazolam nasal spray 0.5 mg per spray Midazolam 1–2 mg s.c., up to 4 times per hour	For severe respiratory stress, regular sedation with 2 mg midazolam s.c.
Anxiety	Lorazepam expidet 1 mg, up to 4 times daily Midazolam (see above)	
Cough	Morphine drops/s.c., as described above Codeine 50 mg tab, up to 3 times daily	

Pain	Morphine (as for respiratory distress)	If required regularly, possibly fentanyl or buprenorphine transdermal
Nausea	Metoclopramide 10 mg tab/drops/s.c., 4 times daily Domperidone 10 mg orodispersible tab, 4 times daily	
Delirium	Haloperidol 5–10 drops/1 mg s.c., 6 times daily Midazolam (as for acute respiratory distress)	Create a calm environment
Dry mouth	Regular oral hygiene	Parenteral fluids are not helpful, more of a burden
<i>Adopted from Kunz, R. and M. Minder, COVID-19 pandemic: palliative care for elderly and frail patients at home and in residential and nursing homes. Swiss Med Wkly, 2020. 150: p. w20235.</i>		

Conclusion

In preparation for the elderly during Covid-19 pandemic, attention has to be paid to infection prevention measures and adequate equipment of healthcare workers with knowledge and skills to identify symptoms of Covid-19 among the elderly coupled with appropriate response. Plans for palliative care have to be instituted for the elderly as disease prognosis is poor in this age group.

References

1. Center for Systems Science and Engineering. *Coronavirus COVID-19 Global cases by the Center for Systems science*. 2020 March 2020 [cited 2020 28 March 2020]; Available from: <https://coronavirus.tghn.org/resources-dashboard/case-location-map/>.
2. Wu, Z. and J.M. McGoogan, *Characteristics of and Important Lessons From the Coronavirus Disease 2019 (COVID-19) Outbreak in China: Summary of a Report of 72 314 Cases From the Chinese Center for Disease Control and Prevention*. *Jama*, 2020.
3. Remuzzi, A. and G. Remuzzi, *COVID-19 and Italy: what next?* *Lancet*, 2020.
4. Lloyd-Sherlock, P.G., et al., *WHO must prioritise the needs of older people in its response to the covid-19 pandemic*. *Bmj*, 2020. **368**: p. m1164.
5. World Health Organisation, *Infection Prevention and Control guidance for Long-Term Care Facilities in the context of COVID-19 - Interim guidance*. 2020.
6. D'Adamo, H., T. Yoshikawa, and J.G. Ouslander, *Coronavirus Disease 2019 in Geriatrics and Long-term Care: The ABCDs of COVID-19*. *J Am Geriatr Soc*, 2020.
7. Kunz, R. and M. Minder, *COVID-19 pandemic: palliative care for elderly and frail patients at home and in residential and nursing homes*. *Swiss Med Wkly*, 2020. **150**: p. w20235.
8. McMichael, T.M., et al., *COVID-19 in a Long-Term Care Facility - King County, Washington, February 27-March 9, 2020*. *MMWR Morb Mortal Wkly Rep*, 2020. **69**(12): p. 339-342.
9. Tan, L.F. and S. Seetharaman, *Preventing the Spread of COVID-19 to Nursing Homes: Experience from a Singapore Geriatric Centre*. *J Am Geriatr Soc*, 2020.
10. Rome, R.B., et al., *The role of palliative care at the end of life*. *The Ochsner journal*, 2011. **11**(4): p. 348-352.

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Conflicts of interest

None known.

Acknowledgements

The following people provided comments on a draft of this Response: (Name, Affiliation; Name, Affiliation).

What is Rapid Response?

Rapid Responses address the needs of policymakers and managers for research evidence that has been appraised and contextualised in a matter of hours or days, if it is going to be of value to them. The Responses address questions about arrangements for organising, financing and governing health systems, and strategies for implementing changes.

ACRES – The Center for Rapid Evidence Synthesis (ACRES) is a center of excellence at Makerere University- in delivering timely evidence, building capacity and improving the understanding the effective, efficient and sustainable use of the rapid evidence syntheses for policy making in Africa. ACRES builds on and supports the Evidence-Informed Policy Network (**EVIPNet**) in Africa and the Regional East African Community Health (**REACH**) Policy Initiative (see back page). ACRES is funded by the Hewlett and Flora foundation.

<http://bit.do/eNQG6>

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EVIPnet

Glossary

of terms used in this report:

www.evipnet.org/sure/rr/glossary

This Rapid Response should be cited as;

Edward, Kayongo., Ismael, Kawooya., Julian, Apio., Pastan, Lusiba. & Rhona, Mijumbi-Deve. 2020. How can facilities readily prepare for the elderly during Covid-19 pandemic in LMICs? *A Rapid Response Brief*. The Centre for Rapid Evidence Synthesis (ACRES): Makerere University, College of Health Sciences.

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