Australian Government
Department of Health and Aged Care

Outbreaks of Acute Respiratory Infection in Residential Care Facilities

Communicable Diseases Network Australia

National Guidelines for the Prevention, Control and Public Health Management of Outbreaks of Acute Respiratory Infection (including COVID-19 and Influenza) in Residential Care Facilities

Disclaimer

The Communicable Diseases Network Australia (CDNA) has developed this guideline in consultation with jurisdictions and the aged care sector. The Australian Health Protection Principal Committee (AHPPC) has endorsed this guidance on 23 September 2022. Where guidance differs from state and territory policies, residential care facilities (RCF) should follow local state or territory requirements.

This update recognises the need for providers to move to a risk-based approach for the early identification of acute respiratory infection and management of outbreaks, supported by specific resources and tools provided by jurisdictions and guidance from their local public health unit. This guidance proposes to support RCFs to take a more proportionate approach in managing the risk of respiratory infection with consideration of resident's wellbeing, recognising the detrimental effects on residents, of social isolation and inactivity.

This document captures the knowledge of experienced professionals and the sector. It provides guidance on good practice, based on evidence available at the time of completion. It is intended to provide nationally consistent risk and principles-based guidance.

This guideline incorporates information adapted from:

- Australian state and territory guidelines for outbreak management in RCFs
- documents and guidelines from the Australian Government Department of Health and Aged Care (herein called the Commonwealth) and other Australian health agencies
- international health authorities, including the World Health Organization, the Centers for Disease Control and Prevention (USA), and the Public Health Agency of Canada.

CDNA acknowledges NSW Health, Tasmania Department of Health and ACT Health for the provision of their jurisdictional guidance to direct the development of this work.

This guideline can assist the following groups in providing best practice information on preventing and managing Acute Respiratory Infection (ARI) outbreaks in RCF:

- administrators of facilities
- staff of facilities
- health and aged care workers
- public health authorities.

Readers should not rely solely on the information contained within this guideline and should use clinical judgement and discretion while following these guidelines. The information within does not replace advice from other relevant sources including more detailed guidance from jurisdictions and/or advice from a health professional.

RCFs should read these guidelines in conjunction with the Australian Guidelines for the Prevention and Control of Infection in Healthcare (2021). This guidance is not meant to be exhaustive but instead aims to supplement more detailed guidance available at a state, territory, and institutional level.

While every effort has been made to ensure the accuracy and completeness of the contents of the guideline at the time of publication, members of CDNA and AHPPC, and the Commonwealth do not warrant or represent that the information in the guideline is accurate, current, or complete. CDNA, AHPPC and the Commonwealth do not accept any legal liability or responsibility for any loss, damages, costs, or expenses incurred by the use of, reliance on, or interpretation of, the information in the guideline.

Revision history			
Version	Date	Reason / Changes	Endorsed by
1.0	23/09/22	Initial Release	AHPPC

Purpose

The information in this guideline applies to all RCFs in Australia and can be used to help facilities with planning, preparation, detection and management of cases and outbreaks of acute respiratory infection (ARI).

The RCF can be any public or private service where facility staff provide residents with personal care or health care. This includes:

- residential aged care
- community based residential health facilities (for example, drug and alcohol services)
- long stay hospital wards and rehabilitation hospitals
- other similar accommodation settings in Australia.

This guideline can assist the following groups in providing best practice information on preventing and managing ARI outbreaks in RCF:

- administrators of facilities
- staff of facilities
- health and aged care workers
- public health unit (PHU)/communicable diseases unit.

Note: While some of the high-level principles described by these Guidelines may be relevant to residential disability service providers, these services usually differ from other residential services such as large residential aged care facilities, they are often small and have restricted options for isolation and infection prevention and control. As such, a separate CDNA National Guidelines for the Prevention, Control and Public Health Management of Outbreaks of Acute Respiratory Infection (including COVID-19 and Influenza) in Disability Residential Services is currently under development. However for further information, residential disability services should refer to the Disability Supplement which provides national guidance on the prevention and management of COVID-19 outbreaks

Overview

ARI definition = Recent onset of new or worsening acute respiratory symptoms: cough, breathing difficulty, sore throat, or runny nose/nasal congestion with or without other symptoms (see box below).

- Acute respiratory infections (ARI) as defined in this document encompasses a range of infections caused by respiratory viruses, including but not limited to, COVID-19, influenza, and respiratory syncytial virus (RSV).
- ARI transmission is primarily via droplet and aerosol spread when infected individuals cough, sneeze, talk or shout.
- Many ARI can be spread before symptoms appear in an infected person, therefore early identification of cases and early institution of infection control procedures, testing and treatment are essential to contain spread and minimise the chance of serious illness or death.
- Symptoms of ARI are often similar regardless of the virus causing illness and therefore testing residents with symptoms is essential to confirm the diagnosis and guide management.

Other symptoms:

- headache, muscle aches (myalgia), fatigue, nausea or vomiting and diarrhoea. Loss of smell and taste and loss of appetite can also occur with COVID-19.
- fever (≥37.5°C) can occur, however is less common in elderly individuals.
- in the elderly, other symptoms to consider are new onset or increase in confusion, change in baseline behaviour, falling, or exacerbation of underlying chronic illness (e.g., increasing shortness of breath in someone with congestive heart failure).

Consider respiratory virus testing for residents with non-respiratory symptoms (as above), especially if there are already ARI cases in the facility.

- Clinical syndromes resulting from respiratory viral infections can vary from no symptoms to severe disease and death. Anti-viral treatments are available for COVID-19 and influenza and therefore early recognition, testing and diagnosis are important for individual patient management as well as for preventing spread to others.
- The RCF should ensure staff, family and residents are aware of these symptoms and the need to report them when observed. Note that cases may experience mild symptoms, particularly in a vaccinated population. Older residents and residents with a disability often have atypical symptoms including behaviour change and may not develop a fever. Ideally, staff should know residents well so they can detect subtle changes in condition or behaviour.

Preparedness

All RCFs must have appropriate preparedness plans in place to ensure a prompt response to a facility ARI outbreak.

A preparedness plan should cover the following:

- Vaccination
  - Review the latest jurisdictional requirements regarding vaccination for residents, staff and visitors.
  - Promote COVID-19 and influenza vaccination among residents and staff.
  - Monitor and record vaccination status of residents, staff and visitors for COVID-19 and influenza.
- Planning
  - Ensure adequate supplies of personal protective equipment (PPE), hand hygiene, waste and cleaning supplies and equipment.
  - Establish clinical management, treatment, and referral pathways for residents.
  - Maintain stocks of anti-viral treatments or methods to access rapidly
  - Consider the clinical suitability of residents for flu and COVID-19 treatments and prophylaxis and obtain an indication of treatment preference or consent from residents and/or their representatives.
  - Encourage GPs to pre-assess residents for antiviral treatment including the most appropriate drug and any dose adjustment required because of renal impairment. Where possible, this assessment should be undertaken pre-emptively during routine appointments.
  - Consider where and how residents can be feasibly cohorted according to risk.
  - Engage residents and their representatives in key decisions prior to an outbreak.
  - Regularly review the outbreak management and surge capacity plans to ensure they align with current advice, public health directions and guidelines.
- Testing
  - Establish laboratory testing arrangements, pathology request processes, and timely method of receiving results.
  - Ensure staff are trained in the collection of appropriate specimens for testing.
  - Develop a systematic method for detecting and recording residents in the facility who develop respiratory symptoms, such as fever or cough.
- Workforce
  - Support enhanced infection prevention and control (IPC) training for staff including appropriate use of PPE and recognition of ARI symptoms.
  - Ensure staff are trained in responding to an ARI outbreak response.
  - Establish workforce surge capacity and contingency planning for staff absenteeism.

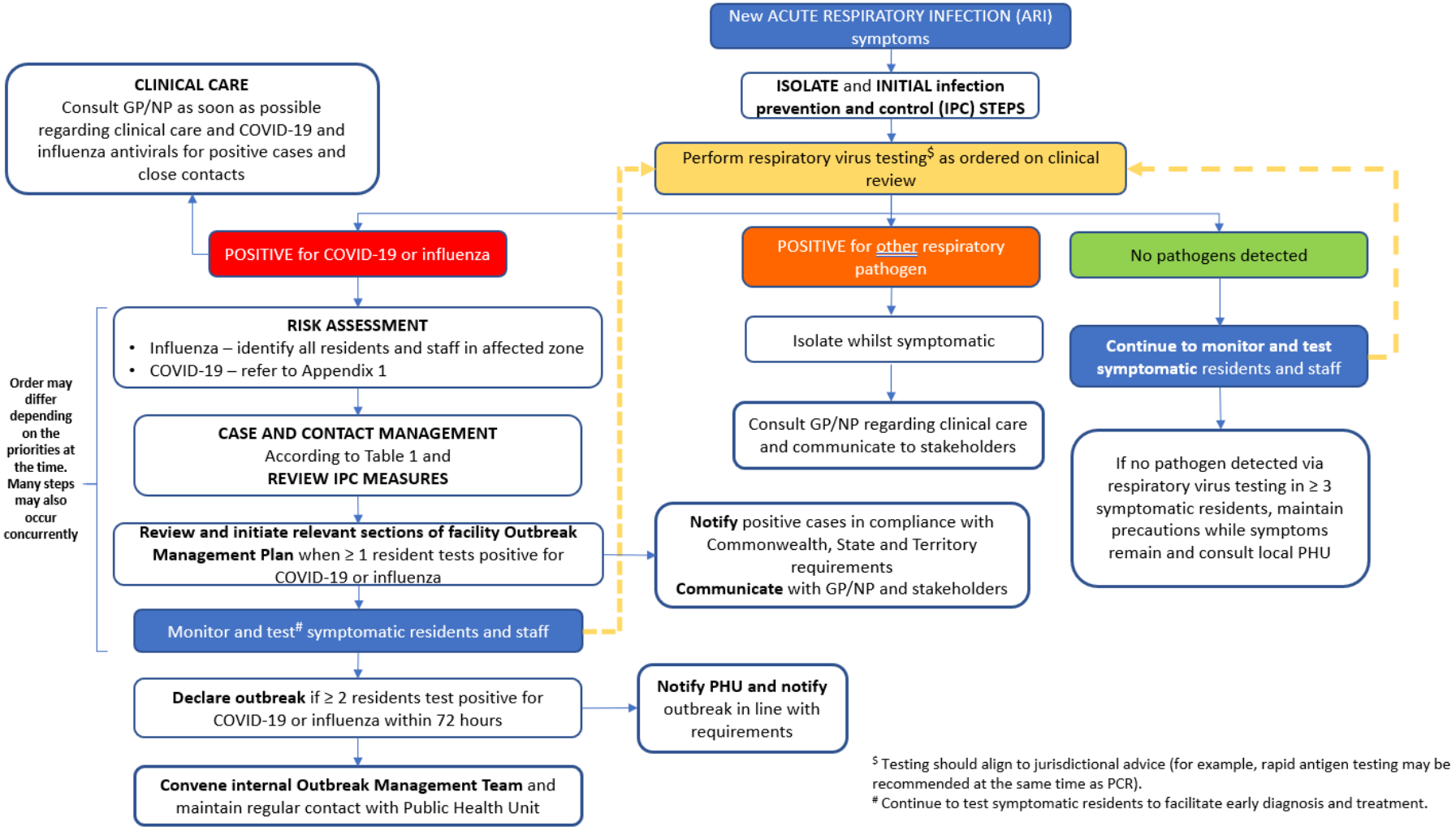
Responding to new ARI symptoms in a resident

RCFs must consider current advice (Public Health Unit, Department of Health or equivalent) in relation to screening of visitors and staff prior to entry into the facility and use of PPE.

Initial actions – New ARI symptoms in a resident

The steps outlined below are a guide only and the step-by-step order may differ depending on the priorities at the time. Many steps may also occur concurrently.

Figure 1. Overview of initial actions – New Acute Respiratory Infection (ARI) Symptoms



$ Testing should align to jurisdictional advice (for example, rapid antigen testing may be recommended at the same time as PCR).

Continue to test symptomatic residents to facilitate early diagnosis and treatment.

Step 1: Isolate and implement infection prevention and control (IPC) measures

- Isolate
  - Isolate symptomatic resident immediately in their own room if possible
  - Allocate staff to symptomatic residents and ensure no cross over of staff from separate wings, cohorts, and zones.
- IPC
  - Implement initial IPC measures including transmission-based precautions – contact, droplet, and airborne precautions (N95/P2 respirator mask, eye protection, gown and gloves to be worn by staff caring for symptomatic resident/s).
  - Set up dedicated donning/doffing area with signage, PPE and hand hygiene.
  - Where possible and where able, isolating residents should wear surgical mask particularly when staff members or visitors are in their room.
- Vaccination
  - Review vaccination status (COVID-19 and influenza) of residents and staff and prioritise vaccination of those not up to date[1].
- Environmental cleaning and disinfection
  - Allocate trained staff for cleaning of affected areas – ensure they are skilled to perform routine, additional, and terminal cleaning.

Step 2: Test

Test symptomatic person/s as soon as possible.

Testing for ARI is critical for establishing a diagnosis, early treatment and planning and control of any potential outbreak.

RCF should take steps to ensure access to appropriate testing services.

Initial cases of ARI within a facility should be tested by PCR to establish the pathogen. PCR should include COVID-19 and Influenza A/B. A wider panel of respiratory viruses should be tested for as clinically indicated. Testing programs should be developed in consultation with stakeholders, informed by jurisdictional guidance and supported by a formal policy approach.

- Facilities should communicate and consult with a General Practitioner (GP) or Nurse Practitioner (NP) regarding clinical review and respiratory virus testing (PCR) of all residents with ARI symptoms. Respiratory virus PCR should include Influenza A, B and COVID-19 and other respiratory pathogens.
- SARS-CoV-2 rapid antigen testing (RAT) may be used for symptomatic people when PCR is less available or turn-around time for PCR is long. Initial symptomatic residents should be tested by both RAT and PCR.
- Symptomatic staff should be directed to their GP.
- Facilities should clearly identify the name of the RCF (or outbreak code if relevant) on the order form and ensure the requesting doctor's details are complete.
- Ensure all symptomatic residents remain isolated until initial testing is complete, and pathogen is known.

[1] Australian Technical Advisory Group on Immunisation (ATAGI) | Australian Government Department of Health

- If no pathogen is detected on respiratory virus testing for three or more symptomatic residents, precautions should be maintained while residents are symptomatic and the PHU contacted for further advice.

Step 3: Risk assess

Following receipt of test results, assess risk to facility from symptomatic resident(s):

Isolate respiratory pathogen positive residents in their own room with designated bathroom if possible and test all other symptomatic residents. Continue to isolate residents while awaiting test result.

- Trigger the outbreak management plan with the first resident who has tested positive. for COVID-19 or influenza while awaiting additional test results of other residents. The outbreak management plan is activated before the definition of an outbreak is met to prepare for a potential outbreak.
- Review IPC measures implemented, then identify and address any gaps.
- Assess and manage risk from symptomatic staff:
    - Furlough symptomatic staff and direct to their general practitioner.

Step 4: Case management

Immediately escalate to the RCF clinical manager if a resident, visitor, or staff member tests positive for influenza or COVID-19 and they have been at the facility during their infectious period.

Inform resident and/or substitute health care decision-maker / relative of positive results or exposure.

- Treatment
    - On diagnosis, facilities must promptly contact the resident's GP/NP regarding clinical assessment, care, and treatment.
    - Residents' GP/NP will continue to provide their routine primary care as needed either onsite and/or virtually.
    - For treatment regimens see Appendix 2.
- Isolation
    - Cases should be managed according to the diagnosis, as shown in Table 1. Jurisdictions may implement additional requirements above these recommendations.
    - The case should isolate in their own room or, if more than one resident case is positive (with the same organism), the residents could be cohorted together for ease of management.
    - The case should continue to receive ongoing daily care onsite (e.g., mobilisation, allied health services, time sensitive pathology tests, routine catheter changes and wound reviews etc).
    - Essential off-site appointments also should continue (e.g., dialysis), with negotiation with the service provider if the resident has COVID-19 or influenza or has been exposed to COVID-19 or influenza.
- IPC measures
    - Cohort and zone
    - Identify the areas of the facility that are at risk. Where the whole RCF is impacted whole-of-facility actions should be taken. Where only a wing or floor of the RCF is impacted only that area should be managed as an outbreak site.

- Cases with different respiratory pathogens should be cohorted separately. E.g., influenza cases should be cohorted away from COVID-19 cases.
- Apply the risk assessment outcomes and test results to confirm areas in the facility that:
  - are staff only e.g., nurses' station, medication room, kitchen, reception area (E.g., Blue zone)
  - are likely to be completely unaffected and can be staffed with non-exposed staff and managed separately (E.g., Green zone)
  - have been affected due to exposures (E.g., Amber zone) or
  - cases (E.g., Red zone)
- Set up donning/doffing areas as per outbreak management plan.
- Allocate staff to a zone for the duration of the outbreak.
- Cohort staff to work in only one part of the facility.

- Staff
  - Staff members who are a positive case must furlough as per Table 1.

Table 1 – Case and contact management for COVID-19, influenza, and other confirmed respiratory pathogens.

			COVID-19 (RAT or PCR)	Influenza (PCR)	Other confirmed respiratory pathogen
CASE	Resident	Case isolation	7 days from positive test date. Case can cohort with COVID-19 positive residents.	5 days from symptom onset. Case can cohort with influenza positive residents.	Whilst symptoms remain. Case can cohort with residents with same confirmed pathogen.
		Release from isolation (RFI)	After day 7 if substantial resolution of acute respiratory symptoms and no fever for 24 hours. No testing required.[2]	After 5 days from symptom onset, or until they are symptom-free, whichever is longer or 72 hours after antivirals commenced. No testing required.	Once symptoms resolve. No testing required.
		Antiviral treatment	COVID-19 antivirals and other disease modifying therapies as indicated (via clinical review)	Influenza antivirals (via clinical review)	Nil – seek guidance from GP on clinical management.
	Staff	Return to work	After 7 days if no symptoms for 24 hours, no testing required. If symptoms continue, return when substantial resolution of acute respiratory symptoms no fever for 24 hrs.[2]	5 days from symptom onset, or until symptom-free, whichever is longer or 72 hours after antivirals commenced. No testing required.	Once symptoms resolve. No testing required.
	Visitors	Visitors to facility	Can visit facility from Day 8 if no symptoms.	Exclude from facility for 5 days from symptom onset or until symptom-free, whichever is longer.	Exclude if symptomatic.
CONTACTS	Resident	Contact testing	All residents in the affected zones (likely wing).	Symptomatic residents in the same zone (likely wing).	Symptomatic residents in the same zone (likely wing).
		Contact isolation	Limit movement until test results pending and risk assessment completed. See Appendix 1.	Residents who are in same zone(s) should avoid moving between different zones.	Nil
		Contact post-exposure prophylaxis	Nil	Influenza antivirals to be considered in outbreak	Nil
	Staff	Return to work	See Appendix 1.	Immediately if no symptoms. Must wear a mask and other PPE as required when at work. Unvaccinated staff should not work in affected areas.	Immediately if no symptoms.
		Post-exposure prophylaxis	Nil	Consider influenza antivirals for unvaccinated staff and staff with comorbidities or pregnancy at higher risk of more serious disease.	Nil
	Visitors	Return to facility	Can attend from Day 8 if no symptoms.	Immediately if no symptoms.	Immediately if no symptoms.

Note: Jurisdictions may implement additional requirements and/or recommendations, including different periods of isolation and quarantine.

[2]This minimum standard aims to balance this risk with the impact of prolonged isolation on individuals and communities. A small proportion of cases may still be infectious when released from isolation.

Step 5: Contact management

- Following an exposure, RCFs should undertake exposure assessment to determine if any staff or residents have been exposed to the case and develop an agreed management plan based on the degree of assessed risk.
- In assessing contacts of a positive case, the RCF should identify all staff and residents in the affected zone who have been potentially exposed.
- To support assessment and management of staff and resident contacts of a positive COVID-19 case (for known exposures or single case with a known source), refer to Appendix 1.
- Ensure resident contacts are monitored for symptoms and limit movement within the facility.
- If the source of infection of COVID-19 is unknown, all residents in the identified zone should be tested to find cases, irrespective of whether they have symptoms. See Appendix 1.
- Consider use of influenza antivirals during influenza outbreaks as post exposure prophylaxis for residents in the affected zone in consultation with the public health unit and treating general practitioner.
- For single cases with no clear source of infection, or multiple cases among residents, consult the local PHU as assessment and management of contacts may differ.
- It is important that RCF use a risk-based approach to contact assessment and management. The risk of transmission should be managed whilst balancing the risk related to social isolation and deconditioning through application of the least restrictive controls appropriate.

Step 6: Notification and reporting

- Notify positive cases of COVID-19 or influenza in compliance with Commonwealth, State and Territory requirements.
- Discuss as required with the local PHU when one resident has tested positive for COVID-19 or influenza.
- Notify positive COVID-19 cases in a residential aged care facility (RACF**)** to the Commonwealth via the My Aged Care provider portal.
- Notify the local PHU of an OUTBREAK when 2 or more residents test positive to either COVID-19 or 2 or more residents test positive for influenza within a 72-hour period.
- Cases of COVID-19 or influenza in staff members are not a trigger for an outbreak response, but go to Step 3 Risk Assess if they were in contact with residents while infectious.
- Where PCR test results are delayed RAT can be conducted in parallel to assist with early identification of a COVID-19 outbreak.
- Notify other care providers, facilities, and hospitals where residents have had a high-risk exposure and have subsequently been transferred or require immediate transfer for care.
- Record and report details of each resident and staff case:
    - Confirm with the local PHU on preferred data format and template. Facilities must complete required information for all affected residents and staff, this will include vaccination status, symptoms, symptom onset, test results and other identifying information.

Step 7: Activate outbreak management plan

An outbreak should be declared if:

- 2 or more residents test positive for COVID-19 within a 72-hour period or
- 2 or more residents test positive for influenza within a 72-hour period

Jurisdictional public health guidance may vary. It is important to ensure your approach is based on local guidance.

- The facility should activate their RCF Outbreak Management Plan (OMP) with the first resident who has tested positive for COVID-19 or influenza while awaiting additional test results of other residents.
- Once an outbreak has been declared, the facility should convene an internal outbreak management team (OMT) meeting and confirm the RCF staff members who will be designated:
    - Outbreak Management Lead and
    - Infection Prevention and Control lead (in residential aged care facilities).
- The OMT should meet and communicate regularly, with decisions documented.
- The facility should remain in regular contact with the PHU.
- The PHU will determine whether an inter-agency OMT meeting is required in a COVID-19 outbreak.

During the outbreak

- IPC measures
    - Use the facility plan to establish cohort areas. Ensure all areas:
        - are clearly designated with clear signage in place.
        - have an adequate number of sites for hand sanitiser, ideally at each bed space.
        - have hand hygiene, PPE station and waste disposal at entry if appropriate.
        - are decluttered as much as possible to make cleaning and decontamination easier.
        - have limited entry/access to each cohort.
        - have separate (and spacious if possible) break areas for staff.
    - For detailed information on risk assessment for appropriate PPE use and IPC for RCF, see the Infection Control Expert Group guidelines for IPC in residential care facilities and refer to local public health advice.
    - RCF should undertake a local risk assessment to inform the appropriate level of PPE for staff providing direct care or working within the resident zone.
    - The assessment should consider controls already in place and also the residents' pre-existing likelihood of COVID-19, resident factors that enable transmission, nature of the care episode and physical location.
- Increase the frequency of cleaning and disinfection.
    - Frequently touched surfaces and those closest to residents should be cleaned more often. These surfaces include:
        - equipment
        - door handles
        - trays
        - tables
        - handrails

        - chair arms
        - light switches
        - patient care equipment (e.g., commodes, lifter slings, etc)
    - Activate strategies established for increases in clinical and general waste storage and removal and linen supply.
- Resident movement during an outbreak
    - Essential off-site appointments also should continue (e.g., dialysis), with negotiation with the service provider if the resident has been exposed to COVID-19 or influenza.
    - Any transfers (other than on the basis of clinical need) should be planned and coordinated with hospital services and in consultation with the resident, their family or alternative decision-makers and public health units. The receiving hospital must be informed about the outbreak at the RCF/wing, regardless of whether the resident being transferred is a case or not.
    - If practical, residents of similar exposure can also be cohorted together.
    - Residents in unaffected zones are able to attend external appointments.
    - Consider relocating residents who are on a palliative care pathway and require additional supports (e.g., compassionate care / visiting, symptom control) to an area where they are less at risk of further exposure (or if cases, plan for how resident could be supported with visits).
- Staff considerations
    - During a confirmed influenza outbreak, staff who have not received the influenza vaccination are at higher risk of acquiring influenza, therefore they are recommended to work only if asymptomatic, wearing a mask, and taking appropriate antiviral prophylaxis (see Table 6), in keeping with the RCF influenza outbreak management policy. Any antiviral use by staff should be documented.
    - Contingencies should be in place for unvaccinated staff who decline to use antivirals.
    - Staff who are higher risk contacts should not move between their section and other areas of the facility, in line with basic IPC principles.

Other considerations relevant to an outbreak

- New and returning residents to RCF from the community, hospital, or emergency department.
    - The presence of an outbreak should not prevent new and returning residents from being admitted/re-admitted to the facility with appropriate IPC measures in place. Decisions should be based on the advice of the local OMT and in consultation with the PHU, residents and their representatives.
    - Residents and families entering the RCF during outbreak should be informed of the current situation, as well as any associated restrictions (e.g., visitor limitations).
- Resident choice regarding isolation
    - Residents should be given the choice to self-isolate while the outbreak is in progress or to mix with people with similar exposure. Their preferences should be recorded in their care plans and regularly reviewed. Residents should be made aware that if they choose to not isolate during an outbreak this may increase their risk of catching the infection.
    - For Aged Care, consumer dignity and choice is foundational standard 1 in The Aged Care Quality Standards.
- Where it is practical, and the facility can manage this:

- Residents with the same condition should be allowed to engage in social activities together if they are well enough to do so and if they can be kept separated from residents who are exposed or unaffected.
- Residents exposed to the same pathogen may choose to leave their rooms to eat in shared dining rooms and participate in social activities with other residents from the exposed area[3]. Exposed residents should not socialise with positive cases or residents from unaffected areas. Unexposed residents can leave their rooms to participate in shared activities and dining with other unexposed residents (e.g., with dedicated staff, dining room, social room).
- Where possible, visits to affected residents should occur in an area with good ventilation. The Aged Care Act 1997, the Charter of Aged Care Rights and the Aged Care Quality Standards include specific responsibilities that provide a legislative basis to this requirement for RACFs.

Step 8: Communicate

- A communication plan should have established systems to manage communications and engagement with families of residents and community that support the RCF.
- Ensure all affected residents are aware of their diagnosis, exposure status, testing and isolation requirements. Individual communications strategies need to be considered for residents who may have difficulty following instructions due to cognitive impairment or language barrier.
- Ensure residents' family and carers are aware of the exposure/outbreak at the RCF and status of individual residents, including their diagnosis and management.
- Ensure staff are aware of the exposure/outbreak at the RCF and remain on high alert monitoring themselves and residents for ARI symptoms
- Ensure visitors are aware of the exposure/outbreak at the RCF and that essential visitors and volunteers[4] are permitted to continue to visit affected residents, including those considered to be high risk and in designated zones. Essential visitors include carers and usual 'partners-in-care', named visitors, people who provide personal care; those visiting a resident who is at/approaching end of life. Visitors must comply with RCF entry requirement, including any screening, PPE and vaccination as outlined in jurisdictional advice
- The RCF may arrange virtual visits (e.g. via tablet) or contactless visits for unvaccinated visitors (e.g. window visits).
- Put up notices of the outbreak at all entrances including information to minimise unnecessary visits that may lead to inadvertent transmission. Signage should also be displayed outside the room of affected residents.

Step 9: Declaring an outbreak over

- A decision to declare the outbreak over should be made by the PHU or OMT. Generally, this is:
  - when no new cases occur within 8 days following the onset of symptoms in the last resident influenza case.
  - 7 days after the last COVID-19 case tests positive or the date of isolation of the last COVID-19 case in a resident, whichever is longer.

[3] Jurisdiction may require the testing of exposed residents prior to leaving their room.

[4] As per 'Ensuring safe visitor access to residential aged care'. Aged Care Quality and Safety Commission.

- However, additional testing or measures may be recommended by the PHU in the 7 days following an outbreak being considered “over”.
- Facilities should remain on high alert and:
    - test appropriately anyone with new symptoms, no matter how mild;
    - carefully monitor residents with high-risk exposure for behavioural changes, lack of appetite, and lethargy; and
    - ensure visitors (who may be at higher risk themselves) are aware that there has been an outbreak.
- Individual cases should remain in isolation for the required period (as per Step 4) even if the outbreak has been declared over for the RCF.
- Where there is extensive or poorly understood transmission, or where there are significant numbers of residents not up to date with immunisations or transmission is within a memory support unit, the PHU may advise the RCF to continue to manage as an outbreak until at least 14 days have passed since the last case tested positive.
- Once an outbreak is over, facilities should evaluate the response to and management of the outbreak to identify strengths and weaknesses. Consider conducting a facility debrief with all employees and contractors involved with the outbreak.

Appendices

Appendix 1: COVID-19 exposure and outbreak management

Appendix 2: Treatment and prophylaxis

Appendix 3: Key documents and resources

Appendix 1: COVID-19 exposure and outbreak management

Table 2. Suggested actions based on classification of high-risk COVID-19 exposure

High-risk exposure	Suggested actions based on classification of high-risk exposure
Staff Where a worker has been exposed to COVID-19 case in a workplace setting where the risk of exposure is defined as high. Considerations for high-risk exposure include: - staff who were not wearing airborne precautions PPE (N95/P2 masks, eye protection,) where aerosol generating behaviours or procedures have been involved - have had at least 15 minutes face to face contact where both mask and eyewear were not worn by exposed person and the case was without a mask, - greater than 2 hours within the same room with a case during their infectious period, where masks have been removed for this period.	• Review affected staff to assess exposure and risk. • Staff who if absent will have a high impact on services, will be able to continue attending work with specific requirements in place: - Continue to work with negative Day 1 PCR/RAT - RAT test every working day, until Day 7 result clear (prior to commencement of workday) - Monitor for symptoms, test (RAT and if negative PCR), and isolate immediately if symptoms develop. **Additional mitigation steps:** - Work in a P2/N95 respirator for the first 7 days following exposure - No shared break areas - Limit work to a single site/area - Consider redeployment to lower patient risk area if possible.
Residents If a resident has been exposed to a COVID-19 case: - in a shared defined area (e.g., prolonged contact during activity, co-located in a wing of a facility) and/or - who have had household-like exposure with a case during their infectious period, or - outbreak-related contact (e.g., cases in the same ward / wing / zone with unknown exposure). **Note: the risk of transmission should be managed whilst balancing the risk related to social isolation and deconditioning through application of the least restrictive controls appropriate.**	- Quarantine for 7 days - Test (PCR/RAT) Day 2 and Day 6 **OR** Consider allowing residents to leave room after risk assessment, with - Baseline and Day 6 PCR, or - RAT at least every second day from Day 0-7 **Release from quarantine:** - After Day 7 on Day 6 negative result - If symptoms develop, RAT and, if negative, PCR.

Table 3. Suggested approaches to management of an outbreak of COVID-19 in residential care facilities

Outbreak Situation	Testing, isolation, IPC and closure
Simple Cases arising from single / known exposure and/or limited to a few cases in one area of the facility and/or limited secondary transmission.	- Cases isolate for 7 days as per Table 1 (Case and Contact Management) and CDNA Series of National Guidelines (SoNG) on COVID-19. - Baseline and Day 6 (D6) PCR for defined at-risk residents, quarantine in room for 7 days OR allow at-risk residents to leave room as long as they remain with residents of similar risk but with RAT testing every second day. - If no cases detected from D6 PCR in at-risk residents release from quarantine after 7 days and outbreak may be declared over.
Complex Poorly understood exposure, or multiple cases affecting multiple areas, or ongoing transmission, or difficultly isolating residents (e.g. dementia unit).	- Cases isolate for 7 days as per Table 1 (Case and Contact Management) and CNDA Series of National Guidelines (SoNG) on COVID-19. - At-risk residents in affected areas should remain in quarantine. Develop a regular schedule of testing in the affected zone for negative at-risk residents every 72 hours by RAT (or PCR) and continue until 7 days after the last case. - Declare outbreak over 7 days after the last positive resident case detected or 7 days after the last positive infectious resident case was effectively isolated (whichever is longer). - Continue to monitor residents for symptoms in affected zone for a further 7 days after the outbreak declared over. - Staff maintain higher standard of PPE for a further 7 days (P2/N95) after the outbreak declared over.

Appendix 2: Treatment and prophylaxis

Table 4. COVID-19 treatment in residential care facilities

Note: In addition to the considerations below refer to the National COVID-19 Clinical Evidence Taskforce, COVID-19 living guidelines. Drug treatments. for further information about additional disease modifying therapies.

Oral Antiviral	Treatment indications	Dosing guidance	Comments	Resources
Molnupiravir (trade name Lagevrio®, MSD),	Diagnosis of COVID-19 in resident of residential care facility, ≥70yrs or ≥50yrs with one additional risk factor, and to be given as soon as possible after a diagnosis of COVID-19, and within 5 days of symptom onset.	800 mg (four 200 mg capsules) orally every 12 hours for 5 days, with or without food. No dose adjustment is recommended for elderly people including those with renal or hepatic impairment.	Dispensed following consultation and direction from an authorised prescriber.	Factsheet Lagevrio.pdf (pbs) COVID-19 oral antiviral medicines in residential aged care (nps)
Paxlovid® (nirmatrelvir + ritonavir)	Diagnosis of COVID-19 in resident of residential care facility, ≥70 yrs or ≥50yrs with one additional risk factor, and to be commenced as soon as possible after a diagnosis of COVID-19 and within 5 days of developing symptoms.	The two active substances of the medicine, nirmatrelvir and ritonavir, which are given as separate tablets, must be taken together twice a day for 5 days.	Extensive drug interactions. A PBS listing for Paxlovid means it can be prescribed by an authorised prescriber following consultation.	Factsheet Paxlovid.pdf (pbs) COVID-19 oral antiviral medicines in residential aged care (nps) University of Liverpool drug interaction checker https://www.covid19-druginteractions.org/

Table 5. Influenza treatment in residential care facilities

Oral Antiviral	Treatment indications	Dosing guidance	Comments	Resources
Oseltamivir (Tamiflu)	Diagnosis of influenza. Treatment should commence as soon as possible, but no later than 48 hours after the onset of the initial symptoms of infection.	Administered as an oral capsule of 75 mg, twice a day for 5 days.	Dose adjustment is required for renal impairment. Refer to product information and table 5.	Tamiflu product information (TGA) Use of Tamiflu in residential aged care (health.gov.au)

Table 6. Influenza prophylaxis in residential care facilities

Oral Antiviral	Prophylaxis	Dosing guidance	Comments	Resources
Oseltamivir (Tamiflu)	Recommended oral dose of Tamiflu for prevention of influenza following close contact with an infected individual.	75 mg once daily for 10 days. Therapy should begin within two days of exposure	Dose adjustment is required for renal impairment. Refer to product information and table 5. The duration of protection lasts for as long as dosing is continued. Safety and efficacy have been demonstrated for up to six weeks.	Tamiflu product information (TGA)

Table 7. Adjusting oseltamivir (Tamiflu) dosage in the setting of renal failure*

Renal function	Dosing regimen for oseltamivir
Dosage adjustment based on Glomerular Filtration Rate	
GFR more than 60 mL/min	No adjustment required
GFR 30 to 60 mL/min	Treatment: 30 mg twice a day for 5 days Prophylaxis: 30 mg once daily for 10 days then review
GFR 10 to 30 mL/min	Treatment: 30 mg once daily, for 5 days Prophylaxis: 30 mg every other day for 10 days then review
GFR less than 10 mL/min	no data
Doses for dialysis	
Haemodialysis	Treatment: Initial dose of 30 mg at the onset of symptoms administered prior to the commencement of dialysis, then 30 mg after each dialysis session Prophylaxis: 30 mg before session, then 30 mg after alternate sessions
Continuous Ambulatory Peritoneal dialysis (CAPD)	Treatment: 30 mg administered prior to start of session, then repeat dose after 5 days Prophylaxis: 30 mg before dialysis, then 30 mg every 7 days

*pdf (tga.gov.au)

Table 8. Influenza antiviral prophylaxis in residential care facilities decision tool

Antiviral medications have a potential role in the management of influenza outbreaks in RCFs, but only as an adjunct to other control measures implemented such as restriction on movement, infection control precautions, and high vaccination rates.

The use of antiviral medications for prophylaxis of residents and staff requires forward planning, and consultation with, and participation of, visiting GPs. As prophylaxis, antivirals are recommended for asymptomatic residents (regardless of vaccination status) and unvaccinated staff.

Importantly, antivirals should be organised within 24 hours of exposure for asymptomatic residents and unvaccinated staff.

The following considerations may assist the RCF OMT team and the PHU in deciding when to implement oseltamivir prophylaxis in an RCF.

Considerations for Prophylaxis		Weaker	Stronger
Current epidemiology in your state or territory	Outbreak:	Few	Multiple
	Hospitalisation:	Few	Frequent
	Deaths:	None	Several
Outbreak characteristics	Attack Rate:	Low	High
	Epi curve:	Flat	Steep
	Morbidity:	Low	High
Outbreak progress	Last case onset:	> 48 hours ago	< 48 hours ago
	Epidemic peak:	> 5 days ago	< 5 days ago
	First case:	> 10 days ago.	< 10 days ago.
Facility characteristics	Staff vaccination coverage:	Good	Poor
	Room setup:	Single	Shared
	Mixing of residents:	Minimal	Shared communal areas
Clinical resources	Number of GPs:	Large	Small
	GP engagement:	Low	Supportive
	RCF care staff:	Unfamiliar with dosing & precautions	Supportive
Oseltamivir supply	Time to obtain:	> 24 hours	< 24 hours

Appendix 3. Key documents and resources

Aged Care Quality and Safety Commission

- Aged Care Quality Standards – The Commission expects organisations providing aged care services in Australia to comply with the Quality Standards
- Outbreak management planning in aged care practical guidance to support COVID-19 outbreak management planning and preparation in residential aged care facilities.

Australian Government Department of Health and Aged Care

- Prevent and prepare for COVID-19 in residential aged care – link to advice and resources for aged care providers.
- Emergency PPE and RAT supply for RACF COVID-19 Outbreak or Exposure– link to the Commonwealth Department of Health and Aged Care ordering form for emergency PPE and RAT supply.
- First 24 hours Checklist. COVID-19
- Being Prepared Outbreak Checklist. COVID-19
- Ensuring safe visitor access to residential aged care
- Infection prevention and control lead/s

Communicable Diseases Network Australia National Guidelines for Public Health Units

- CDNA National Guidelines for Public Health Units. Coronavirus Disease 2019 (COVID-19)
- CDNA National Guidelines for Public Health Units. Seasonal Influenza Infection
- CDNA national guidelines for the prevention and management of COVID-19 outbreaks in disability residential services - The Disability Supplement. National guidance on the prevention and management of COVID-19 outbreaks in disability residential services.
- Superseded Guidelines
    - CDNA national guidelines for the prevention, control and public health management of COVID-19 outbreaks in residential care facilities in Australia (2022). Contains useful background information and resources.
    - CNDA Guidelines for the Prevention, Control and Public Health Management of Influenza Outbreaks in Residential Care Facilities in Australia (2017). Contains useful background information.

Infection, prevention, and control

- Australian Guidelines for the Prevention and Control of Infection in Healthcare

- Infection Control Expert Group (ICEG), endorsed infection prevention and control guidance specifically for RCF, as well as personal protective equipment guidance and advice on environmental cleaning in community settings
- COVID-19 Environmental cleaning and disinfection principles for health and residential care facilities factsheet.
- Disinfectants registered with the TGA as effective against the virus (SARS-CoV-2) are listed at TGA disinfectants use against COVID-19.

Treatment and prophylaxis

- Australian Government Department of Health and Aged Care. Use of Lagevrio (molnupiravir) in residential aged care
- Pharmaceutical Benefits Scheme Factsheet. Paxlovid.pdf
- National COVID-19 Clinical Evidence Taskforce. COVID-19 living guidelines. Drug treatments.
- National Prescribing Service. MedicineWise. COVID-19 oral antiviral medicines in residential aged care (nps.org.au)
- Australian Government Department of Health and Aged Care. Use of Tamiflu in residential aged care
- Health Direct. Tamiflu to RACFs
- Therapeutic Guidelines.
    - Influenza
    - COVID-19

Health.gov.au

All information in this publication is correct as at September 2022