Australasian College
for Emergency Medicine

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Management of Respiratory Disease Outbreaks

including Severe Influenza, Pandemic Influenza and Emerging Respiratory Illness

13 March 2020

ABOUT

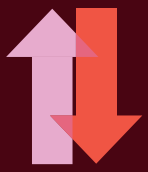
This information

These guidelines have been prepared to help emergency department (ED) staff at all levels manage severe seasonal and pandemic influenza and other emerging respiratory illnesses.

The Australasian College for Emergency Medicine recognises the role EDs can play as part of a comprehensive and system-wide approach to the management of pandemic influenza throughout Australia and New Zealand. The information presented here gives operational guidance to help minimize the impact of pandemic influenza and respiratory illnesses on the community.

In developing these Guidelines, ACEM has drawn on information within the *Australian Health Management Plan for Pandemic Influenza* (2019) and *The New Zealand Influenza Pandemic Plan: a framework for action (2017).*

The suggestions in these guidelines can be scaled up or down depending on:



+ The number of patients involved
+ The severity of disease in those with illness
+ The staff and resources available

The Australasian College for Emergency Medicine

The Australasian College for Emergency Medicine (ACEM) is the not-for-profit organisation responsible for training emergency physicians and advancement of professional standards in emergency medicine in Australia and New Zealand.

Our vision is to be the trusted authority for ensuring clinical, professional and training standards in the provision of quality, patient-focused emergency care.

Our mission is to promote excellence in the delivery of quality emergency care to all of our communities through our committed and expert members.

A major threat

An outbreak of influenza or other infectious respiratory diseases can be a major threat to public health, causing significant morbidity and mortality, even at low clinical severity.

Outbreaks of infectious respiratory diseases present major challenges for health services, with serious impacts on health resources including the clinical workforce and medical treatment. There can also be significant societal and economic disruption across schools, workplaces, travel and supply chains.

Important aspects of planning for, and managing, an influenza pandemic include:

- Inter-pandemic surveillance of respiratory infections and education of health professionals
- Increased education of health professionals regarding Personal Protective Equipment (PPE), hand hygiene and infection control practices
- Organisational support for immunisation of vaccine preventable infections including influenza
- Prevention of community spread
- Maintenance of essential services
- Treatment modalities
- Scalability of plans according to disease severity and disease prevalence

Assumptions

An outbreak of an infectious respiratory disease is dynamic, so we must remain flexible in our approach and prepared to adapt based on the latest information available, and guidance from national, state and territory governments and District Health Boards. In preparing these guidelines, we have made the following assumptions:

- Primary responsibility for management of an influenza pandemic, or severe seasonal outbreak, will remain with state and territory governments and District Health Boards
- Every jurisdiction and every hospital will have their own severe seasonal and/or pandemic influenza plan, based on an emergency preparedness model
- Local governments will have policies and plans consistent with relevant national, state and territory documents, including continuity plans to ensure delivery of essential local government services
- Jurisdictions will provide hospitals with continuous support and guidance on matters such as case definitions, management of anti-viral and PPE stockpiles and quarantine measures
- Public education campaigns regarding infection, hygiene, vaccination and where to seek treatment will remain the responsibility of national, state and territory and local governments
- Hospitals will be required to maintain essential healthcare services
- The health workforce will be affected and staffing shortages will occur
- Jurisdictions may designate some hospitals as flu hospitals, which will create flow-on effects for the management of non-pandemic patients at other hospitals
- Contract tracing is the responsibility of local and/or jurisdictional health departments, not EDs.

Resources

This document has been prepared using the following resources:

- *Department of Health. 2019. Australian Health Management Plan for Pandemic Influenza*
- *Ministry of Health. 2017. New Zealand Influenza Pandemic Plan: a framework for action*
- *World Health Organization. 2017. Pandemic Influenza Risk Management Guidance*
- *Australasian College for Emergency Medicine. 2019. G26 Reducing the spread of communicable infectious disease in the emergency department*

Disclaimer

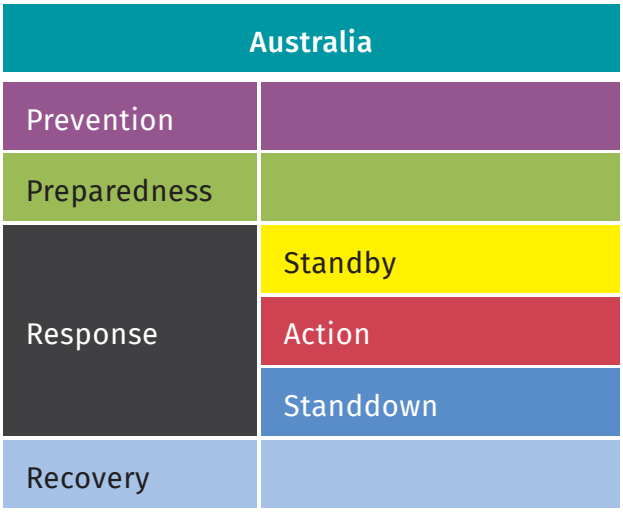
This resource is current as of the date of publication. It is intended for use as a general guide only; it is not a substitute for, and is not intended to replace local hospital policies, procedures or requirements. Individuals using this resource are responsible for exercising independent skill and judgement with regard to the particular circumstances and the needs of each patient, or seeking appropriate professional advice.

In compiling this resource, the Australasian College for Emergency Medicine has made every effort to ensure that the information upon which it is based is current and up-to-date. However, individuals using this resource should consider any information that may have subsequently become available or published.

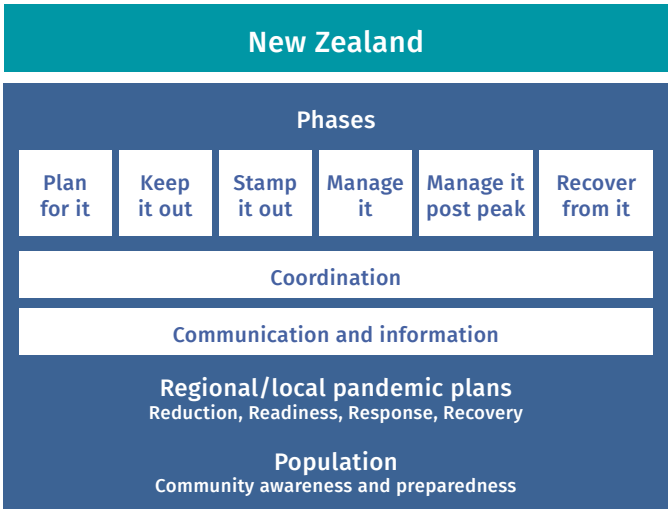
The Australasian College for Emergency Medicine does not accept any legal liability or responsibility for any injury, loss or damage incurred by use of, or reliance on, information provided in this resource.

Focus

In Australia and New Zealand, the management of pandemic influenza is divided into six stages:

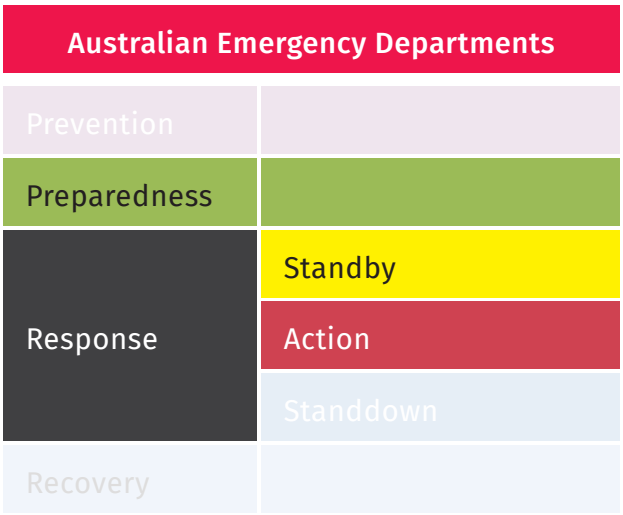


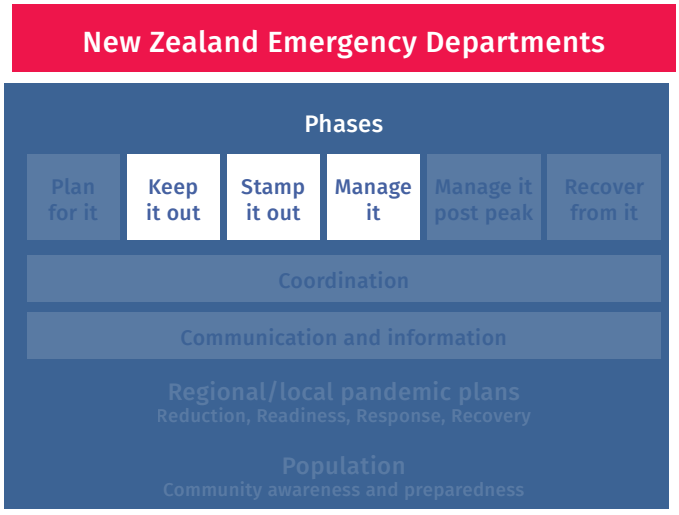
Australian Health Management Plan for Pandemic Influenza (2019)



New Zealand Influenza Pandemic Plan: A framework for action (2017)

These guidelines focus on the following areas due to their relevance to the role of an emergency department.





Outside this focus, your relevant jurisdictional and hospital plans should take precedence over any advice offered in these guidelines.

Australia

Preparedness

New Zealand

Keep it out

During this stage EDs should be undertaking a range of strategies to prevent and prepare for novel outbreaks or pandemic influenza through:

- Advanced infection control procedures (e.g. staff vaccinations, infection control practices and hand washing)
- Planning and design (e.g. establishing criteria for **surge/flu clinics**)
- Reviewing education, training and awareness needs
- Reviewing resource requirements and availability
- Preparation and review of clinical protocol templates, which can be adapted to a particular virus, and prepare for their implementation
- Prepare for implementation
- Heightened risk = heightened surveillance

Personal Protective Equipment. Appropriate stockpiling and stock rotation of PPE is essential. Check healthcare workers are trained in correct use and management of PPE in addition to fit-checking N95 respirators.

Establish sufficient numbers of Respiratory Hygiene Stations throughout the department that are available for both staff and patients. These should include hand sanitiser, isolation masks, tissues and disposal bins.

Monitor and enforce hand hygiene among staff, patients and visitors.

Communication. Information provided should be based on advice from jurisdictional health departments for consistency, with clear explanations provided for any significant changes/updates. Decide on how best to deliver and update information depending on the audience.

For **staff** it might be a combination of intranet, electronic noticeboards and emails. For **patients and visitors**, advanced triage/screening protocols and the location of **surge/flu clinics** might require additional signage or information handouts.

Anti-viral strategy. Determine the vaccination status of all ED staff, and encourage vaccination against seasonal influenza.

Consider redeployment of staff who are unable to be vaccinated, including those who are unlikely to seroconvert, 'at risk' staff (such as those who are pregnant or severe asthmatics, with pre-existing medical conditions and people aged over 65) depending upon the type of infection.

Develop and/or review education packages on prescription of pre and post exposure prophylaxis of anti-virals. Develop guidelines for the use of prophylaxis alongside patient information handouts.

Consider implementing nurse administration of prophylaxis using a prescribed model

Surge/flu clinics should be consistently labelled to aid recognition and understanding by the public. Keep in mind that some jurisdictions may name **surge/flu clinics** as '**pandemic assessment centres**', '**fever clinics**' or '**respiratory clinics**'.

Australia

Preparedness

New Zealand

Keep it out

Clinical Management. Prepare and/or review clinical algorithms and protocols for use in triage, management and disposition of suspected cases. This should include clinical criteria for diagnosis and classification, criteria for the commencement of anti-viral treatment where indicated, and the management of patients of varying severity.

Determine if a patient is part of an outbreak or a cluster, and possible exposure or close contact with other cases. Determine which laboratory tests to be used.

Consider appropriate infection control measures to be used. For example, consider replacing nasopharyngeal aspiration with nasopharyngeal swabs given the high-risk to staff performing it.

Develop criteria for the establishment of a hospital **surge/flu clinic**, independant of the ED.

Workforce. Develop or review guidelines for identification and management of staff who come into contact with suspected or confirmed cases, and staff who develop symptoms.

Consider how best to manage increased staff sick leave and carer's leave. Review your guidelines for managing worker's compensation for illnesses contracted at work.

Consideration should be given to redeployment of 'at risk' staff to other clinical areas or and the compulsory use of masks for unvaccinated staff.

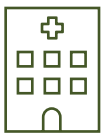
This will be independent of the number of patients presenting with influenza-like illness (ILI) and the severity. Develop criteria for the movement of patients from ED to the flu clinic.

The ED should remain responsible for treating severely ill patients, as well as low acuity ILI patients, and determine a threshold number of ILI presentations per day to initiate either a **designated flu area** within the ED for treating ILI patients, or a **definitive surge/flu clinic*** operating independant of the ED.

Both can help minimise the risk of spread of infection to other patients, particularly high-risk patients, such as those who are immunosuppressed.

The location of the **surge/flu clinic** should be based on recognised containment and infection control principles.

The **surge/flu clinic** should have access to imaging, pathology and pharmacy services.



Organisational Response. Emergency physicians should be represented in any hospital incident/emergency management groups tasked with determining and implementing organisational response plan.

Operating hours should be developed in response to patient and ED need.

ED staff are not responsible for staff or equipment resources for a **definitive surge/flu clinic**, as the ED must still be able to operate under a 'business-as-usual' model. Medical staff should still be involved in oversight of these staff. ED resource levels should remain commensurate with clinical need.

Consider using health professionals capable of working in a **surge/flu clinic** with appropriate clinical protocols such as extended scope of practice nurses, nurse practitioners, Hospital-in-the-Home nurses, in-reach staff and immunisation nurses.

Modified protocols and plans for traffic management may be needed to ensure appropriate triage of patients with respiratory illness to the surge/flu clinic and acutely unwell patients to the ED

**In addition to establishing a definitive surge/flu clinic, there may be other models of care depending on region and facility type.*

Australia

Standby

New Zealand

Stamp it out

During this stage the global spread of a novel virus has occurred, with transmission of the virus identified as either small or large clusters, in one or more countries. This stage is characterised by heightened awareness and surveillance, securing and embedding stockpiles and enhanced communication to staff. The protective use of PPE is essential. All strategies developed during this stage should be reviewed and scaled as required for implementation during the pandemic stage. Vaccination and anti-viral strategies are to be informed based on whether it is a known or unknown disease.

Clinical management. Circulate up-to-date case definitions and screening questions. Review and update clinical algorithms and protocols including elements outlined in the Preparedness/Keep it Out stage and communicate these updates to staff.

Determine ED capacity to treat suspected and/or infected patients, identify and isolate areas for treatment, and allocate staff to these patients.

Implement advance triaging and screening measures, and use external signage to direct suspected cases to the isolated area/flu clinic. Maintain an advanced screening station outside the ED to direct these patients.

Review the criteria for establishing a **surge/flu clinic**. Monitor number and timing of confirmed or suspected cases presenting to ED. Once the threshold of patients presenting with ILI is reached, establish a designated and separate area within the ED to treat patients with flu or novel infection

Review, update and distribute anti-viral information sheet to all relevant ED staff and include guidance on treatment, pre and post exposure prophylaxis, dosage and side effects.

Keep staff up to date on the process to access anti-viral treatment. Review the vaccination status of staff and direct all non-immunised staff to a vaccination clinic, if available. Any remaining unvaccinated staff should not be in direct contact with patients.

Communication. Establish a **communication plan** that outlines the method and the frequency of updating staff about the pandemic, and make the plan known widely. Staff should know when, how and from who they will receive the latest information.

Updates should be consistent in their format, with clear explanations provided for any significant changes.

The **communication plan** should include a method to ensure the latest information is also available for visitors and patients. For example, provide regular updates to internal and external signage and handouts with dated/version controlled documents.

Within the ED, have information available regarding hand hygiene and respiratory etiquette.

The **communication plan** should outline a process to answer questions from staff, patients and visitors. This will help keep the message consistent.

Workforce. Inform your staff that the hospital has entered stage of 'managing a pandemic'.

Monitor any staff after contact with suspected or confirmed cases and keep a log of these personnel.

If there are work restrictions in place, these should be communicated to staff and include advice not to attend work if they are symptomatic.

Develop a contingency plan to manage large numbers of staff with parenting or carer responsibilities. They may be unable to attend work due to school/kindergarten/childcare closures. The hospital should consider external arrangements for childcare.

Consider redeployment of 'at risk' staff to other clinical areas.

PPE. Monitor the use of PPE and maintain appropriate stocks of PPE and hand hygiene products.

Continue with staff education relating to correct use of PPE.

Ensure adequate numbers of respiratory hygiene stations are available and their location is focussed on points-of-entry to the ED and in waiting areas.

Develop signage around the ED and the entrance for patients and visitors on the location and use of PPE.

Australia

Action

New Zealand

Manage it

During this stage, the pandemic virus has entered the country and is spreading throughout the community. This stage is characterised by an implementation of maximum infection control procedures and increased monitoring of staff wellness. A definitive **surge/flu clinic** will likely need to be established and increased capacity will be required across the whole system.

Clinical management. Circulate up-to-date case definitions and screening questions to all relevant staff. Review and update clinical algorithms and/or protocols and communicate updates to staff.

Review the capacity of the ED to manage suspected and/or infected patients and reassess the threshold for the establishment of a **designated flu area** and stand-alone **surge/flu clinics**.

Review the treatment area requirements for a **designated flu area** set-up within the ED and the additional security measures to assist with managing patient flow.

Continue screening measures as per Response/Standby stage and review signage and triage question requirements.

Direct symptomatic patients to identify themselves to triage and to use PPE within the ED.

Reassess demands on the **designated flu area** within the ED in treating, and plan for the establishment of a **definitive surge/flu clinic** staffed by non-ED staff.

Review staffing of **surge/flu clinic** and reassess the location of the proposed **surge/flu clinic** in light of severity of illness and numbers affected.

Establish adequate transport between the clinic site and the ED, and other referral pathways. For example, a referral from the community.

Additional Intensive Care Unit and inpatient beds will be required. This needs to be planned for so that ED flow still occurs for normal business which will decrease but will not go away.

Review and update anti-viral treatment information sheet and distribute to all relevant staff.

Have separate protocols for pre and post-exposure prophylaxis and include a dosage information sheet and prescribing information.

Review and update implementation of staff anti-viral treatment strategy with details on pre and post-exposure prophylaxis for staff (focus on the frontline staff).

Review vaccination status of staff and direct any non-immunised staff to the vaccination clinic.

Despite infection control practices, at some point the outbreak may result in the inability to isolate patients. This will lead to cross infection.

Communication. Continue to keep staff informed regarding case definitions and the stage of the pandemic.

Provide up-to-date and appropriate signage for patients at entranceways and inside regarding hand hygiene and respiratory etiquette.

Ensure there is an identified process to respond to questions from staff so a consistent message is provided.

PPE. Establish security protocols to prevent the theft of stock from respiratory hygiene stations. Ensure appropriate stockpiling of PPE and hand hygiene products and maintain staff education regarding the use of PPE.

Review numbers and placement of respiratory hygiene stations, with focus on entry points and waiting areas. Ensure updated and appropriate signage is available for hospital patients and visitors regarding hygiene.

Workforce. Review and update guidelines for identification and management of staff who have come into contact with suspected or confirmed cases, staff who develop symptoms and staff presenting with symptoms.

Continue to monitor staff for contact with suspected or confirmed cases and maintain a log of personnel affected. Consider redeployment of ‘at risk’ staff to other clinical areas.

Contacts

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