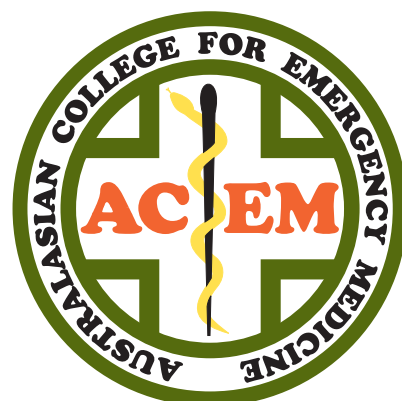


# Management of Severe Influenza, Pandemic Influenza and Emerging Respiratory Illnesses in Australasian Emergency Departments



**AUSTRALASIAN COLLEGE  
FOR EMERGENCY MEDICINE**





# PURPOSE

A resource that aims to provide practical guidance

## About the Resource

This resource aims to provide guidance to Fellows and trainees of the Australasian College for Emergency Medicine (ACEM), as well as to other Emergency Department (ED) staff, on the management of severe seasonal and pandemic influenza, and emerging respiratory illnesses within EDs.

This resource is applicable to all Australasian EDs and provides guidance on operational matters in relation to the management of a pandemic. It recognises the role of EDs as part of a whole health system response, and that a comprehensive approach from all hospitals and health services is required, to minimise the impact of an influenza pandemic on the health system.

The following key national and international frameworks and definitions have been utilised:

- The Australian Health Management Plan for Pandemic Influenza (AHMPPI, 2014). The AHMPPI outlines a national framework which is based on an emergency response approach and identifies four overarching areas of activities during a pandemic
- The New Zealand Influenza Pandemic Plan: a framework for action is a guide for the response in New Zealand

### GLOSSARY

ACEM	Australasian College for Emergency Medicine
AHMPPI	Australian Health Management Plan for Pandemic Influenza
ED	Emergency Department
HCW	Healthcare Workforce
ILI	Influenza-like-illness
PPE	Personal Protective Equipment

## The Focus of the Resource

The focus of this resource is to provide guidance in the management of influenza during the stages of:

- Preparedness (AUS)/Keep it Out (NZ)
- Response (AUS) - Standby and Action sub-stages/Stamp it Out and Manage It (NZ)

ACEM recognises the importance of the following stages:

- Prevention/Plan for it;
- Response (AUS) - Stand-down substage/ Manage It - Post Peak (NZ); and
- Recovery (AUS)/Recover From It (NZ)

However it has chosen to focus this resource on the stages where EDs will primarily be involved.

**IMPORTANT:** The suggested recommendations 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

**IMPORTANT:** jurisdiction and hospital plans take precedence over any advice offered in this resource.

### OTHER RESOURCES

Australasian College for Emergency Medicine. 2011. *Surge Management Card*. <https://www.acem.org.au/getattachment/31405fff-ca1c-4365-a163-21f38a689dc3/ACEM-Surge-Management-Card.aspx>

Department of Health. 2014. *Australian Health Management Plan for Pandemic Influenza*.

Ministry of Health. 2010. *New Zealand Influenza Pandemic Plan: a framework for action*. Wellington. Ministry of Health. <http://www.health.govt.nz/publication/new-zealand-influenza-pandemic-plan-framework-action>

World Health Organisation (WHO). 2013. *Pandemic Influenza Risk Management WHO Interim Guidance*. 10 June 2013 [http://www.who.int/influenza/preparedness/pandemic/influenza\\_risk\\_management/en/](http://www.who.int/influenza/preparedness/pandemic/influenza_risk_management/en/)

Royal Australian College of General Practitioners (RACGP). *Pandemic Flu Kit (2nd edition)*. <http://www.racgp.org.au/pandemicinfluenza>



# INTRODUCTION

Important aspects of planning for and managing an influenza pandemic

## A Major Threat

An influenza pandemic can be a major threat to public health, causing significant morbidity and mortality, even at low clinical severity.

Pandemics 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 disruption, including disruption to schools and workplaces, and restriction of travel.

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

- Inter-pandemic surveillance of respiratory infections and education of the Healthcare Workforce (HCW)
- Increased education of the HCW regarding Personal Protective Equipment (PPE), hand hygiene and infection control practices
- Organisation support for immunisation against 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

### DISCLAIMER

This resource is current as of the date of first 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 utilising 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.

## Assumptions

This guidance assumes:

- Primary responsibility for management of an influenza pandemic, or severe seasonal outbreak, resides with state and territory governments (jurisdictions)
- 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 also develop policies and plans consistent with relevant national, state and territory documents, including continuity plans to ensure delivery of essential local government services
- Pandemics are dynamic and 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 be the responsibility of national, state/territory and local governments
- Hospitals will be required to maintain essential healthcare services
- The HCW will be affected and staffing shortages will occur
- Jurisdictional health departments may designate some hospitals as flu hospitals, which will have flow on effects for the management of non-pandemic patients at other hospitals
- Contact tracing will be the responsibility of local and/or jurisdictional health departments, not EDs.

# P

## PREPAREDNESS/PLAN FOR IT

Emergency Management Stage: Australia/New Zealand

### General

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

**THE FOLLOWING ARE ACTIVITIES THAT ALL EDs SHOULD BE UNDERTAKING AS PART OF THE PREVENTION AND PREPAREDNESS STAGE OF EMERGENCY MANAGEMENT**

### Organisational response

- Emergency physician representation on hospital incident/emergency management groups tasked with determining and implementing organisational response plan

### Personal Protective Equipment (PPE)

- Appropriate stockpiling of PPE
- Check Healthcare Workforce (HCW) trained in correct use and management of PPE
- Fit checking of N95 respirators
- Respiratory hygiene stations – hand sanitiser, isolation masks, tissues, disposal bins:
  - Sufficient numbers of respiratory hygiene stations throughout ED for both patients and HCW
- Enforce appropriate hand hygiene for HCW, hospital patients and visitors
- Appropriate signage visible



### Anti-viral strategy

- All ED staff vaccinated against seasonal influenza:
  - Determine vaccination status of HCW
  - Vaccination of non-immunised HCW encouraged
- Develop and/or review education packages on prescription of pre and post exposure prophylaxis of anti-viral:
  - Include guidelines for use and patient information handouts



### Clinical Management

**PREPARE AND/OR REVIEW CLINICAL ALGORITHMS AND PROTOCOLS FOR USE IN TRIAGE, MANAGEMENT AND DISPOSITION OF SUSPECTED CASES.**

**THIS SHOULD INCLUDE:**

- Management of patients of varying severity
- Criteria for commencement of anti-viral treatment
- Diagnosis:
  - Clinical criteria for classification
  - Is patient part of outbreak or cluster?
  - Commencement of anti-viral treatment
  - Exposure or close contact with other cases
  - Laboratory tests to be used
- Infection control measures to be used (e.g. nasopharyngeal aspiration presents a high risk to staff performing it, and its replacement with nasopharyngeal swabs should be strongly considered)
- Include criteria for movement of patients from ED to flu clinic
- Consider redeployment of those HCW who are unable to be vaccinated (which includes those who are unlikely to seroconvert)

**CONSIDER IMPLEMENTING NURSE ADMINISTRATION OF PROPHYLAXIS USING PRESCRIBED MODEL**

- Criteria for establishment of hospital influenza (flu clinic) will depend on number of patients presenting with Influenza-like-illness (ILI) AND severity
- ED responsible for treating severely ill patients, as well as low-acuity ILI patients



# PREPAREDNESS/PLAN FOR IT

Emergency Management Stage: Australia/New Zealand

## Clinical Management (continued)

- Determine threshold number of ILI presentations per day to initiate:
  - **Designated flu area** within the ED for treating ILI patients – this will minimise the risk of spread of infection to other patients, particularly high risk patients such as those who are immunosuppressed
  - Definitive flu clinic\* (or other Models of Care [MOC]) operating independent of the ED
- Location of the flu clinic based on recognised containment and infection control principles with access to imaging, pathology and pharmacy services
- Business as usual requirements of ED must be considered
- ED staff are not responsible for staffing stand-alone flu clinics (or other MOC)
- Staffing level of EDs remain commensurate with clinical need - ED resources should be kept within the ED
- Examples of HCW capable of working in a flu clinic (or other MOC), with appropriate clinical protocols include:
  - Extended scope of practice nurses, nurse practitioners, Hospital-in-the-Home nurses, in-reach staff and immunisation nurses
  - Medical staff should still be involved in oversight of these HCW
- Flu clinic (or other MOC) operating hours in response to patient and ED need

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

## Communication

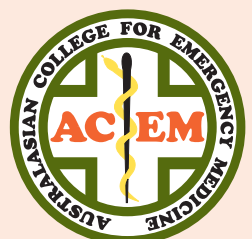
- Decide communication methods to:
  - Update HCW with information (e.g. intranet, electronic noticeboards, email)
  - Inform patients and visitors regarding pandemic updates (e.g. advanced triage/screening, location of flu clinic, etc.)
  - Information provided should be consistent, with clear explanations provided for any significant changes/updates

## Workforce

- Develop or review guidelines for identification and management of:
  - HCW who come into contact with suspected or confirmed cases
  - HCW who develop symptoms
  - Consider leave entitlement issues likely to arise:
    - Carers leave, sick leave
- Worker's compensation if illness contracted at work/whilst working
- Review ability to deploy 'at risk' staff to other clinical areas
- Consideration should be given to redeployment or compulsory use of masks for unvaccinated staff



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# R

## RESPONSE - STANDBY/KEEP IT OUT

Emergency Management Stage: Australia/New Zealand



### General

Period of global spread of a novel virus, with TRANSMISSION OF THE VIRUS IDENTIFIED, EITHER SMALL OR LARGE CLUSTERS, IN ONE OR MORE COUNTRIES. Characterised by:

- Heightened awareness and surveillance
- Enhanced communication to staff
- Protective use of PPE
- Securing and embedding stockpiles
- Appearing as a known or unknown disease

**ALL STRATEGIES DEVELOPED DURING THIS STAGE SHOULD BE REVIEWED AND SCALED AS REQUIRED FOR IMPLEMENTATION DURING THE PANDEMIC STAGE. VACCINATION AND ANTI-VIRAL STRATEGIES TO BE INFORMED BASED ON WHETHER KNOWN OR UNKNOWN DISEASE**



### Personal Protective Equipment

- Monitor usage of PPE
- Appropriate stockpiling of PPE and hand hygiene products
- Maintain HCW education regarding use of PPE
- Adequate numbers of respiratory hygiene stations - **focus on ED entry points and waiting area/s**
- Prior to ED entrance - appropriate signage available for hospital patients and visitors regarding hygiene



### Clinical Management

- Circulate up-to-date case definitions and screening questions to all relevant HCW
- Review and update, as required, clinical algorithms/protocols:
  - Include elements outlined in PREPAREDNESS STAGE
  - Communicate updates to HCW
- Determine ED capacity to treat suspected and/or infected patients:
  - Allocate HCW to these patients
  - Identify and isolate area/s of ED as treatment areas for these patients
- Implement advance triaging/screening measures:
  - Use signs outside the ED directing suspected cases to isolated areas/flu clinic (or other MOC); or
  - Staffing advanced screening station outside ED to direct patients



### Clinical Management (continued)

- Review criteria for establishment of flu clinic (or other MOC):
  - Monitor number and timing of confirmed or suspected cases presenting to ED
  - Once threshold of patients presenting with ILI is reached, initiate establishment of a **designated flu area** within the ED - a separate area within the ED for treating ILI patients
- Review, update and distribute anti-viral information sheet to all relevant ED staff:
  - Include guidance on treatment, pre and post exposure prophylaxis, dosage and side effects
- Ensure all HCW know process to access anti-viral treatment
- Review vaccination status of HCW:
  - All non-immunised HCW directed to a vaccination clinic
  - Any remaining unvaccinated HCW should not be in direct contact with patients



### Communication

- Establish method and frequency for communicating with HCW:
  - Where pandemic updates will be made available (e.g. intranet, email etc.)
  - How often updates will be posted
  - Information provided should be consistent, with clear explanations provided for any significant changes or updates
- Ensure up-to-date and appropriate signage for patients:
  - Prior to entering ED i.e. advanced triage
  - In ED regarding hand hygiene and respiratory etiquette
- Ensure there is an identified process to respond to questions from HCW so a consistent message is provided



### Workforce

- Inform ED staff that hospital has entered stage of 'managing a pandemic'
- Monitor HCW after contact with suspected or confirmed cases:
  - Keep a log of these HCW personnel
- Communicate work restrictions to HCW:
  - HCW advised not to attend work if symptomatic
- Develop contingency for large numbers of HCW unable to attend work due to school/kindergarten/childcare closures
  - Hospital should consider external arrangements for childcare
- Consider redeployment of 'at risk' staff to other clinical areas

# R

## RESPONSE - ACTION (INITIAL/AND OR TARGETED)/ STAMP IT OUT AND MANAGE IT

Emergency Management Stage: Australia/New Zealand

### General

During these sub-stages, the pandemic virus has entered the country and is spreading throughout the community. This stage is characterised by:

- Implement maximum infection control procedures
- Monitor staff wellness
- Definitive flu clinic will likely need to be established
- Increased capacity will be required across the whole system

**EMERGENCY DEPARTMENT AND HOSPITAL RESOURCES  
NEED TO REMAIN FLEXIBLE TO CHANGES IN THE SEVERITY  
OF DISEASE, PATIENT NUMBERS AND THE EFFECT ON  
THE HEALTHCARE WORKFORCE**

### Personal Protective Equipment

- Prevent theft of stock from respiratory hygiene stations
- Ensure appropriate stockpiling of PPE and hand hygiene products
- Maintain HCW education regarding use of PPE
- Check adequate number 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

### Clinical Management

- Circulate up-to-date case definitions and screening questions to all relevant HCW
- Review and update as required, clinical algorithms and/or protocols:
  - Communicate updates to HCW
- Review capacity of ED to manage suspected and/or infected patients:
  - Reassess threshold numbers for establishment of **designated flu area** and stand-alone flu clinics (or other MOC)
  - Review HCW and treatment area requirements for **designated flu area** set-up within ED
  - Additional security measures to assist with managing patient flow
- Continue screening measures as per RESPONSE - STANDBY stage - review signage and triage question requirements:
  - Direct symptomatic patients to identify themselves to triage and to use PPE within the ED

### Clinical Management (continued)

- Reassess demands on the **designated flu area** within the ED in treating, as required, and plan for establishment of definitive flu clinic staffed by non-ED HCW:
  - Review staffing of flu clinic
  - Reassess location of proposed flu clinic in light of severity of illness and numbers affected
  - Is transport adequate between:
    - Clinic site and ED
    - Other referral pathways (e.g. GP referral from the community)
- Review and update anti-viral treatment information sheet:
  - Distribute to all relevant HCW
  - Have separate protocols for pre and post-exposure prophylaxis
  - Include dosage information sheet
  - Include prescribing information
- Review and update implementation of HCW anti-viral treatment strategy:
  - Detail pre and post-exposure prophylaxis for HCW - focus on the frontline staff
  - Review vaccination status of HCW
  - Any non-immunised HCW directed to vaccination clinic

### Communication

- Continue to keep HCW informed regarding:
  - Case definitions
  - Stage of pandemic
- Continue to provide up-to-date and appropriate signage for patients:
  - Prior to entering ED i.e. advanced triage
  - In ED regarding hand hygiene and respiratory etiquette
- Ensure there is an identified process to respond to questions from HCW so a consistent message is provided

### Workforce

- Review, and update as required, guidelines for identification and management of:
  - HCW who have come into contact with suspected or confirmed cases
  - HCW who develop symptoms
- HCW presenting with symptoms advised not to attend work
- Continue to monitor HCW for contact with suspected or confirmed cases:
  - Keep updated log of HCW personnel affected
- Consider redeployment of 'at risk' staff to other clinical areas



# PANDEMIC FLU MANAGEMENT

Australia and New Zealand

## Pandemic Flu Management in Australia

### Australian Health Management Plan for Pandemic Influenza (AHMPPI) (2014)

#### PREVENTION

Adequate surveillance of emerging threats  
Plan and prepare – including clinical management, anti-viral management, equipment stockpiles and workforce continuity

#### PREPAREDNESS

No novel strain detected (or emerging strain under initial investigation)  
Develop & maintain plans, ensure resources available and ready for rapid response, monitoring of emerging diseases with pandemic potential

#### RESPONSE STAGE

##### Standby (sub-stage)

Sustained community person to person transmission overseas  
Prepare to commence enhanced arrangements (commenced in preparedness).  
Identify and characterise nature of disease  
Communication measures to raise awareness and confirm governance arrangements

##### Action (sub-stage)

Cases detected in Australia

**Initial** (when information about disease is scarce)

Prepare and support health system needs  
Manage initial cases  
Provide information to support best practice health care  
Support effective governance

**Targeted** (when enough is known about the disease to tailor measure to specific needs)

Support and maintain quality care  
Ensure a proportionate response

##### Stand-down (sub-stage)

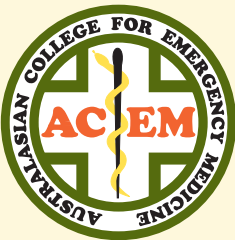
Support and maintain quality care  
Cease activities that are no longer needed  
Monitor for a second wave of the outbreak and also for development of anti-viral resistance  
Evaluate systems and revise plans and procedures

#### RECOVERY

Assess impact of pandemic  
Prepare for possibility of further waves  
Debrief for future planning

## Pandemic Flu Management in New Zealand

Stage	Potential Trigger	Specific Objectives
<b>PLAN FOR IT</b> Planning and preparedness	Normal seasonal levels of influenza	Plan and prepare to reduce impact of a pandemic on New Zealand
<b>KEEP IT OUT</b> Border management	Sustained human-human transmission of a novel influenza virus overseas in two or more countries	Prevent or delay arrival of pandemic virus in New Zealand
<b>STAMP IT OUT</b> Cluster control	Novel influenza virus or pandemic virus detected in New Zealand	Control and/or eliminate
<b>MANAGE IT</b> Pandemic management	Multiple clusters at separate locations	Reduce impact on population
<b>MANAGE IT - POST PEAK</b> Transition to next stage (Recover), and planning for second wave of pandemic	NZ wave decreasing	Recovery and/or preparing for second wave
<b>RECOVER FROM IT</b> Recovery	Vaccinations result in protected population or pandemic subsiding	Expedite recovery



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