

Infection Control Guidelines for Influenza

These guidelines provide up to date infection prevention and control advice for the management of influenza in NSW health care facilities.

These guidelines should be read in conjunction with the NSW Health Infection Control Policy (PD2007_036). Standard Precautions apply to all patients receiving care in health care facilities, regardless of their diagnosis or presumed infection status.

Personal protective equipment (PPE) requirements when caring for or visiting patients with suspected or confirmed influenza

Health care workers and visitors should:

- Carefully put on appropriate personal protective equipment (PPE) before patient contact. Carefully remove PPE after patient care.
- Avoid touching contaminated environmental surfaces (eg, door knobs, light switches).
- Dispose of PPE as general waste in patient’s room or anteroom.

Putting on PPE

- perform hand hygiene
- gown
- mask, undertake fit check if P2 mask
- protective eyewear, recheck mask
- gloves.

Removing PPE

- gloves, perform hand hygiene
- protective eyewear
- gown, perform hand hygiene
- mask (surgical or P2)
- perform hand hygiene.

DO NOT touch your eyes, nose or mouth while wearing PPE - your hands may become contaminated.

Table 1: PPE requirements when caring for or visiting patients with suspected or confirmed influenza

| PPE | When entering room or bed area and patient with influenza IS wearing surgical mask | When entering room or bed area and patient with influenza IS NOT wearing surgical mask | When in or entering room during aerosol producing procedure (NOT including nose/throat swabs) |
|-----------------------------------|---|---|---|
| Surgical mask | No | Yes | No, wear P2 mask |
| P2 mask | No | No | Yes |
| Gown, non-sterile, long-sleeved | No, unless exposure to body fluids expected | No, unless exposure to body fluids expected | Yes |
| Gloves, non-sterile | No, unless exposure to body fluids expected | No, unless exposure to body fluids expected | Yes |
| Eyewear, protective | No | Yes | Yes |
| Apron (if permeable gown is used) | No, unless exposure to body fluids expected | No, unless exposure to body fluids expected | Yes |

Hand hygiene

All staff, visiting practitioners and visitors must perform hand hygiene:

- Before putting on PPE
- During removal of PPE
- Immediately on removal and disposal of PPE.

Cough etiquette

Patients with suspected or confirmed influenza should be instructed to:

- Wear a surgical mask when other people are in the room or bed area
- Cover their mouth/nose when coughing or sneezing
- Use disposable tissues to contain respiratory secretions
- Spit into disposable tissue, if spitting is necessary
- Dispose of tissues in general waste bin immediately after use
- Perform hand hygiene regularly, especially after coughing or sneezing.

Table 2: Personal protective equipment (PPE) requirements - influenza

| Personal Protective Equipment Type | Requirements |
|------------------------------------|--|
| Gloves | <p>Put on single use examination gloves before entering patient's room if contact with body fluids, soiling or splashing is likely</p> <p>Must conform with <i>AS/NZS 4011: Single-Use Examination Gloves – Specifications</i></p> <p>Perform hand hygiene after removal of gloves.</p> |
| Gown | <p>Put on disposable fluid repellent / resistant, non-sterile long-sleeved gown before entering patient's room to protect clothing if contact with body fluids, soiling or splashing is likely.</p> <p>If no fluid repellent / resistant gown is available, use a plastic apron.</p> <p>Material gowns MUST NOT be worn</p> |
| Mask | <p>Surgical masks—catch potentially infectious droplets produced by the wearer and provide a barrier to droplet inhalation by health care workers.</p> <p>P2 masks —reduce the chance of inhaling viruses when an aerosol producing procedure is being performed.</p> <p>Remove a mask when it becomes moist, by touching the ties/strings/loops only.</p> <p>Remove mask when leaving the patient's room / anteroom.</p> <p>DO NOT wear the mask dangling around your neck or under your nose.</p> <p>P2 mask - fit check procedure</p> <p>Perform fit check:</p> <ul style="list-style-type: none"> • Before entering room • Each time a P2 mask is put on. • Select size and style of P2 mask to suit wearer <ul style="list-style-type: none"> – place mask on face – place headband or ties over the head and at base of neck – compress mask to ensure a seal across the bridge of the nose – compress mask to ensure a seal across the cheeks and face – check the positive pressure seal of the mask by gently exhaling. If air escapes, adjust the mask. – check the negative pressure seal of the mask by gently inhaling. If the mask is not drawn in to the face, or air leaks around the face seal, readjust the mask and repeat process or check for defects in the mask • Refer to manufacturer's instructions for fit checking if experiencing difficulty. <p>Adequate seal of P2 mask cannot be guaranteed if there is facial hair, including a 1 - 2 day beard growth</p> <p>Must conform with <i>AS/NZS:1715 Selection, use and maintenance of respiratory protection devices</i>, and <i>AS/NZS:1716 Respiratory protective devices</i></p> |
| Protective eyewear | <ul style="list-style-type: none"> • Must be optically clear, anti-fog, distortion free, close fitting and shielded at the side. • Eyewear should be either single-use or reusable after cleaning according to manufacturer's instructions. <p>Must conform with <i>AS/NZS 1336 (1997) Recommended practices for occupational eye protection</i>, and <i>AS/NZS 1337 (1992) and Amendment 1 (1994) Eye protectors for industrial application</i>.</p> |

Table 3: Additional precautions - influenza

| Influenza precaution | Requirements |
|--|--|
| Aerosol producing procedures | <p>Aerosol producing procedures are those that stimulate coughing and promote the production of aerosols such as aerosolised or nebulised medication administration, diagnostic sputum induction, naso-pharyngeal aspiration, bronchoscopy, airway suctioning, endotracheal intubation, positive pressure ventilation via face masks and high frequency oscillatory ventilation.</p> <p>NB Taking nose and throat swabs is <u>no longer</u> considered an aerosol producing procedure.</p> <p>Wear P2 mask, gown, gloves and protective eyewear while in a single room where an aerosol producing procedure is being performed.</p> <p>DO NOT use nebulisers. Use spacers or alternative treatment options instead. Only perform procedures likely to produce aerosols when medically necessary. Limit the number of clinical staff in the room during aerosol producing procedures and minimise the number of entries and exits during procedures.</p> |
| Ambulatory settings (including outpatients, emergency departments, influenza clinics, community health settings) | <ul style="list-style-type: none"> All staff, patients and visitors to practice hand hygiene and cough etiquette Ensure access to surgical masks Assess patients against the influenza case definition. Those that meet the case definition or are coughing should be provided with a surgical mask and sit away from others while waiting Limit time in common waiting areas Restrict movement of symptomatic patients in waiting areas Place symptomatic patients in an assessment room/cubicle away from other patients in the treatment area Health care workers and visitors to wear appropriate PPE. <p>See <i>Aerosol producing procedures</i></p> <ul style="list-style-type: none"> DO NOT use nebulisers. Use spacers instead. |
| Cleaning – ambulatory care settings (including outpatients, emergency departments, influenza clinics, community health settings) | <ul style="list-style-type: none"> Upon discharge clean all surfaces in patient’s immediate environment with a neutral detergent, followed by disinfectant. Room/cubicle/patient care area can be used immediately following cleaning. <p>See also “Disinfectants”.</p> |
| Cleaning – in-patient room or bed area | <p>Daily (Patient’s room or bed area)</p> <ul style="list-style-type: none"> Clean with neutral detergent <p>After patient discharge</p> <ul style="list-style-type: none"> Surgical mask not required. Use Standard Precautions as appropriate. Clean all surfaces in patient’s immediate environment, including bathroom, with a neutral detergent followed by disinfectant. Change and launder bed curtains if contaminated. Room can be used immediately following cleaning. <p>For spills within the patient’s room seek advice of Infection Control Professional or Infectious Diseases Physician (Refer to Waste Management Guidelines (PD2005_132)).</p> |

| Influenza precaution | Requirements | | |
|--|---|--|---|
| Disinfectants | Disinfectant | Recommended use | Precautions |
| | Sodium hypochlorite: 1000 parts per million of available chlorine, usually achieved by a 1 in 50 dilution of 5% liquid bleach | Disinfection of material potentially contaminated with blood and body fluids | <ul style="list-style-type: none"> • Should be used in well-ventilated areas • Protective clothing required while handling and using undiluted bleach • Do not mix with strong acids to avoid release of chlorine gas • Corrosive to metals |
| | Granular chlorine: eg. Det-Sol 5000 or Diversol, to be diluted as per manufacturer's instructions | May be used in place of liquid bleach if this is unavailable | <ul style="list-style-type: none"> • Same as above |
| | Alcohol: eg. Isopropyl 70%, ethyl alcohol 60% | Smooth metal surfaces, tabletops and other surfaces on which bleach cannot be used | <ul style="list-style-type: none"> • Flammable, toxic, to be used in well-ventilated area, avoid inhalation • Keep away from heat sources, electrical equipment, flames, hot surfaces • Allow it to dry completely |
| Reference: Australian Department of Health and Ageing, <i>Interim Infection Control Guidelines for Pandemic Influenza in Healthcare and Community Settings</i> (June 2006), page 21. | | | |
| Kitchen Utensils | <ul style="list-style-type: none"> • Use Standard Precautions for handling dishes and eating utensils | | |
| Linen | <ul style="list-style-type: none"> • Use Standard Precautions for handling linen and laundry • Wet linen must be placed in an individual plastic bag within the linen bag to avoid leakage and risk to transport and laundry staff | | |
| Patient equipment | <ul style="list-style-type: none"> • Disposable equipment should be used wherever possible • Keep minimum stocks of disposable equipment in the patient's room (no more than 24 hours supply) • Provide gloves for handling equipment contaminated with blood and body substances • Avoid contaminating environmental surfaces and equipment when wearing soiled gloves | | |
| Room safety | <ul style="list-style-type: none"> • Limit the number of staff, including non-clinical staff, entering the patient's room • Patient medical records must remain outside the room at all times • PPE is NOT TO be stored in patient's room. PPE must be accessible at the entrance to the room or anteroom • Vital sign/observation charts and medication charts to be separated from the patients medical records and kept in the patient's room away from the patient's immediate environment <p>Place signage at the entrance to room advising staff and visitors to see Nurse or Midwife in Charge before entering room</p> | | |
| Isolation / cohorting of inpatients | <ul style="list-style-type: none"> • Maintain a spatial separation from infectious patients at all times. • Where possible, isolate the patient with influenza in a single room. • If single room not available, cohort the patient with other patients with influenza (in consultation with infection control professional, or infectious diseases physician). • It is recommended that single patient rooms be fitted with ensuite facilities. Where no ensuite facility is available, a toilet and bathroom should be dedicated for individual or cohort patient use. | | |
| Specimen collection & transport | Use Standard Precautions for specimen collection and transport to the laboratory NB It is not necessary to use a P2 mask for collection of nose and throat swabs. It is important to wear a surgical mask, protective eyewear, gloves and gown. | | |

| Influenza precaution | Requirements |
|-----------------------------|--|
| Transport of patients | <p>Spontaneously breathing and non-ventilated patient to wear a surgical mask when leaving their room and during transport</p> <ul style="list-style-type: none"> • Advise internal and external transport staff that Droplet Precautions are required • Notify the area/ward/department/health facility in advance of receiving patient that Droplet Precautions are required • Patients on oxygen therapy: if using nasal prongs the patient is to wear a surgical mask over the top of the nasal prongs for transport (if medical condition allows). • Transporting team and patient to travel in lift by themselves • Not to be transported with other patients in the same vehicle (<i>consult Infection Control Professional or Infectious Diseases Physician for advice</i>) • Staff to wear appropriate PPE when transporting patients, including ventilated patients. • Clean transport equipment with a neutral detergent followed by disinfection. |
| Visitors | <p>Visitors should be limited to those essential for patient support and should use the same infection control precautions/PPE as health care workers. If the patient is wearing a surgical mask, visitors do not require a mask, but should practice good hand hygiene.</p> <p>Encourage telephone communication between patient and family members/friends in preference to visiting.</p> <p>Visitors who are pregnant, immunocompromised or in a vulnerable group should not visit the patient. If visiting is essential they should be encouraged to keep their distance and perform hand hygiene while in the patient's room or bed area.</p> |
| Waste, including sharps | <ul style="list-style-type: none"> • Standard Precautions to be used for waste and sharps • Dispose of waste in patient's room or anteroom • Dispose of disposable gowns, gloves, masks and protective eyewear, and used tissues as general waste • Dispose of clinical waste as defined in the <i>Waste Management Guidelines</i> • Dispose of sharps into a designated "sharps container" <p>Refer to <i>Waste Management Guidelines</i> (PD2005_132) for spills</p> |

NSW Health policies

Infection Control Policy – May 2007 (PD2007_036) at www.health.nsw.gov.au/policies/pd/2007/PD2007_036.html

Waste Management Guidelines for Health Care Facilities – August 1998 (PD2005_132) at www.health.nsw.gov.au/policies/PD/2005/PD2005_132.html

Further information

Updates on H1N1 influenza 09 and resources at www.health.nsw.gov.au/publichealth/swine_flu.asp

Australian Department of Health and Ageing, *PROTECT* phase www.healthemergency.gov.au

Australian Department of Health and Ageing & South Australian Department of Health, Safe Use of Personal Protective Equipment (DVD) www.flupandemic.gov.au/internet/panflu/publishing.nsf/Content/safeuse-dvd-1