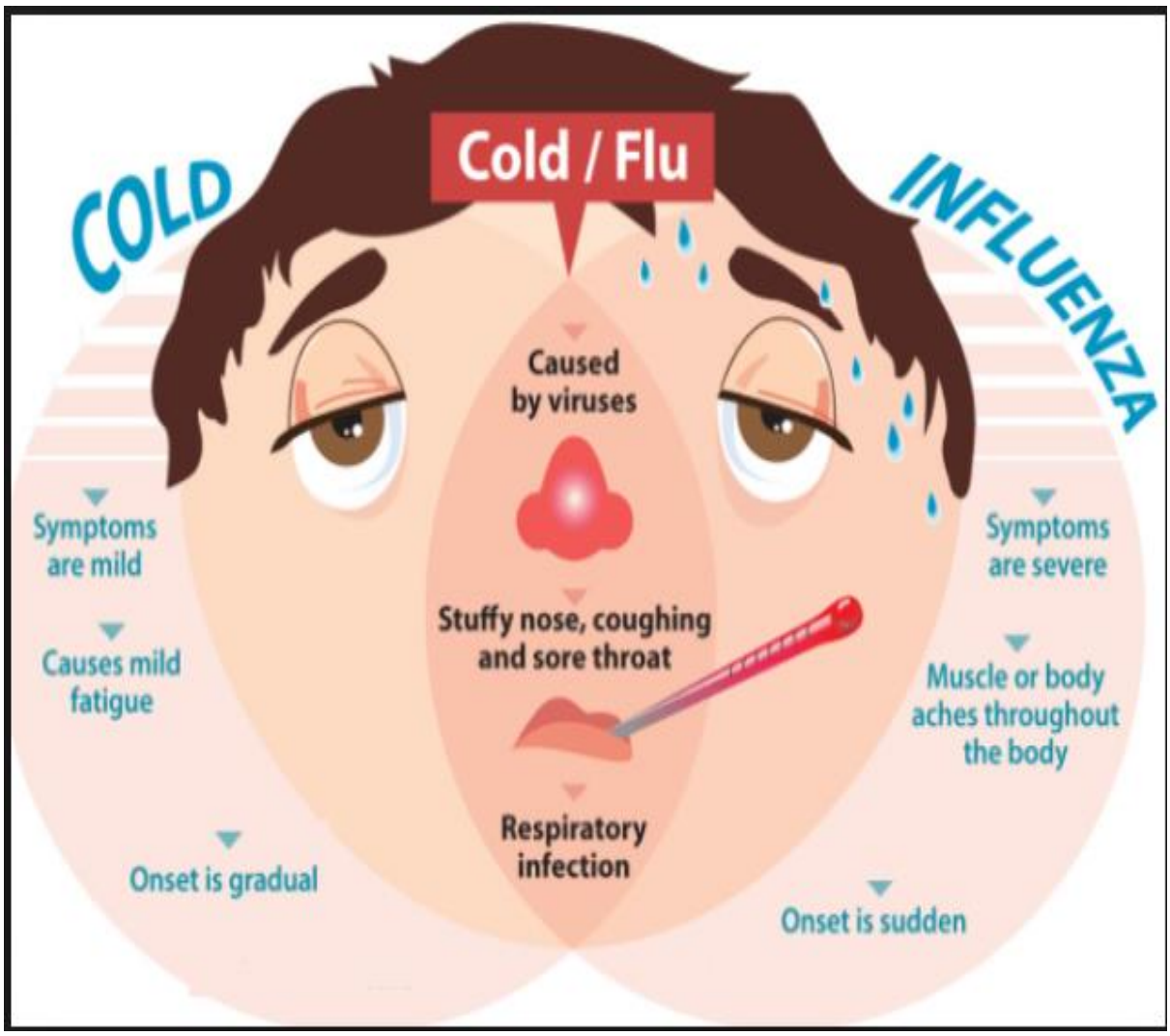
Residential Care Plan



Guidelines for the Prevention, Control and Management of Influenza Outbreaks

CONTENTS

OVERVIEW

Preface: Our residents are vulnerable to influenza due to co-morbidities and/or advanced age and the environment of communal living facilitates the spread of respiratory agents.

The purpose of this document: is to provide best practice guidelines for: preparing, preventing, identifying and managing **outbreaks of influenza**. Note: in a pandemic period, outbreak control will be determined by the HBDHB. This plan was prepared by Leigh White, Taradale Masonic Residential Care and Sandra Bee, Hawke's Bay District Health Board.

CONTENTS

SECTION 1 GENERAL INFORMATION

Influenza

- Influenza viruses are very infectious and can cause acute respiratory disease that can cause serious illness and death
- Our facilities are high-risk environments for influenza due to communal living arrangements and the continual close proximity of residents
- The elderly are particularly vulnerable to influenza due to immune senescence and/or co-morbidities

Description

Influenza viruses are highly infectious causes of influenza, an acute respiratory tract disease. Three types of influenza virus are A, B and C.

- Both type A and B viruses cause large numbers of seasonal influenza cases
- Type C influenza is relatively rare

Transmission, incubation and communicability

- Large droplets are believed to be the primary mode of transmission for influenza viruses, these **droplets** are produced when infected **individuals cough or sneeze**
- Influenza can also be transmitted by **direct contact with respiratory secretions, such as from hard** surfaces where influenza viruses can persist

The incubation period for influenza is short, on average 2 days (range 1-4 days). People infected with influenza are considered infectious from 1 day before onset of symptoms and viral shedding is greatest in the first 3-5 days of illness.

Vaccination is the single most important means for preventing influenza. In each facility we should aim for coverage of 95%.

SECTION TWO CLINICAL

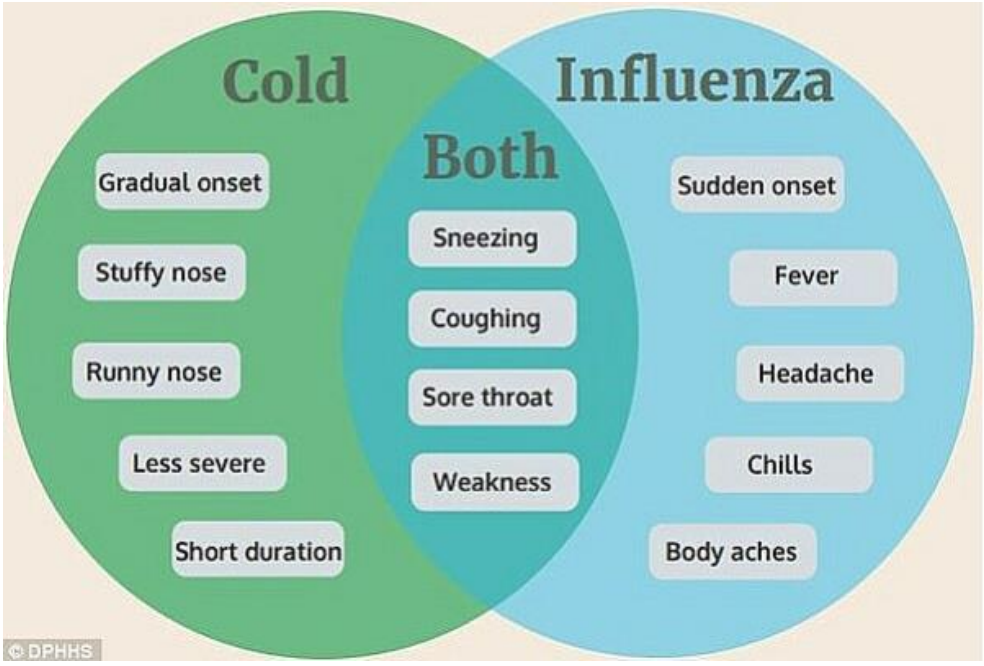
Symptoms and signs

Influenza can be difficult to distinguish from other viral respiratory tract infections on clinical signs alone. ***Symptoms and signs of influenza may include the following***:

- Sudden onset of fever (≥38°C). ***Of note***, elderly residents may not necessarily have an elevated temperature with influenza, due to medical conditions or medications masking raises in temperature.
- Respiratory symptoms
    - New or worsening cough
    - Shortness of breath
    - Sore throat
- Systemic symptoms
    - Headache
    - Myalgia (muscle soreness)
    - Malaise

In the elderly, symptoms may also include:

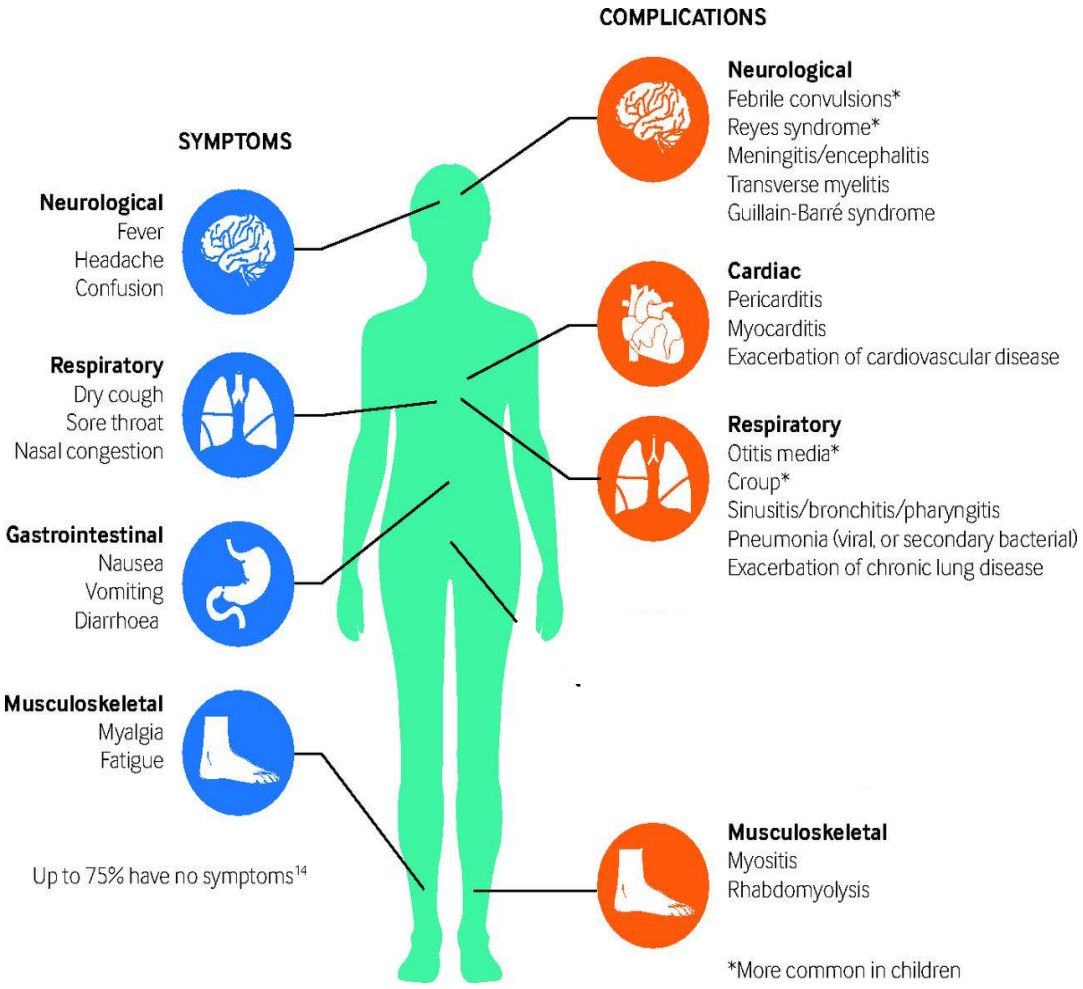
- Onset of, or increase in, confusion
- Worsening of underlying conditions, for example: exacerbation of chronic obstructive pulmonary disease or congestive heart failure



Complications include

- primary viral and secondary bacterial pneumonia
- sinusitis, otitis media
- encephalitis
- Reye's syndrome when salicylates such as aspirin are used
- increased number of deaths
- exacerbations of chronic conditions
- febrile seizures
- myositis
- increased rates of hospitalisation

Summary of symptoms and complications



SECTION 3 RECOGNISING

Recognising influenza-like illness and outbreaks

- **Three (3) or more people (residents or staff) with influenza like illness (ILI) within the same 3 days (72 hour period) indicates a potential influenza outbreak**
- If an outbreak is suspected, the Public Health Unit may request in a sample of swabbing those infected

Influenza surveillance

The aim of ILI surveillance is to ensure early identification of symptoms in residents and staff that may precede, or indicate early stages of an outbreak.

Prompt detection of outbreaks allows early implementation of control measures.

Early implementation of control measures and notification has been associated with shorter duration of outbreaks.

The following case definition should be used for ILI in staff and residents

- **Sudden onset of:**
  - Fever
  - Chills
  - Myalgia or
  - Clinically documented temperature $\geq 38^0$C

PLUS two or more of the following:

- Headache
- Malaise
- Cough (new or worsening)
- Sore throat

Refer to Appendix 1 for a guideline in decision making

RESPONSE TO A SINGLE CASE OF ILI OR INFLUENZA IN A RESIDENT

- Hydration
- Isolate ill resident or cohort and minimise interaction with other residents
- If admission/transfer is required to HBDHB hospital inform in advance that the resident is being transferred and there is potential or confirmed influenza. ***Refer to Appendix 3 for a sample transfer advice form (ISBAR).***

SECTION 4 TESTING OF RESIDENTS

Testing of residents

- In an outbreak, a sample of people meeting the ILI case definition should be tested, usually 4 to 6, **be advised by the Public Health Unit** ***(refer to Appendix 2)***
- Nose or throat swabs are collected for influenza testing once three or more cases of ILI occur within 3 days, and at least one has a positive laboratory test for influenza, the outbreak is confirmed
- Further cases of ILI are assumed to be due to influenza and should be treated as such

Antiviral medication during an outbreak - take the lead from Public Health

- GPs are responsible for prescribing antiviral medications.
- Early initiation of antiviral treatment (within 48 hours of symptom onset) in adults with confirmed influenza reduces the risk of secondary complications requiring antibiotic therapy, and hospitalisation.

Antiviral use for prophylaxis – take the lead from Public Health

- The widespread use of antivirals in institutions that house residents at high risk of severe disease and death from influenza is supported by observational cohort studies and one randomised controlled trial.
- During an outbreak, other facility residents will have been, or may become, exposed to infectious residents.
- The provision of antivirals works as early treatment for those incubating disease and reduces shedding in those infected.
- Antiviral prophylaxis should only be used in addition to other outbreak control measures.
- If recommended, to optimise the chances of reducing transmission and bring the outbreak under control, antiviral prophylaxis should be given to ALL asymptomatic residents (regardless of vaccination status) and ALL unvaccinated staff.
- Ideally, antivirals should be commenced by all targeted residents and staff within 24 hours, AND Medication safety issues, including renal function/renal insufficiency, must be appropriately considered during the prescribing phase.
- Staff need to be aware of the most common side effects, e.g. nausea and vomiting.

SECTION 5 INFECTION PREVENTION AND CONTROL/TRANSMISSION

Key elements for staff in controlling influenza:

- staff and resident vaccination rates
- hand hygiene before and after and resident care activities
- use of appropriate personal protective equipment (PPE)
- regular cleaning
- increased cleaning of shared equipment
- infected resident placement - isolation and cohorting
- minimising resident transfer or transport

The spread of respiratory viruses can be reduced by hygiene measures (hand hygiene, cleaning), barriers to transmission (masks, gloves, eye protection, gowns), and isolation of ill residents (social distancing).

Transmission-based precautions are "good" work practices *(refer to Appendix 5).*

Depending upon the extent of the outbreak and the physical layout of the building, a restriction on **admissions** might be applied.

If **transfer to hospital** is required, notify the ambulance service and receiving hospital of the outbreak and the suspected or confirmed diagnosis. A template for resident transfer ***refer to Appendix 3.***

Re-admission of residents, who have had influenza and were transferred to hospital or another facility, requires the provision of appropriate accommodation, care and infection prevention and control. The re-admission of residents who have not had suspected or confirmed influenza in the outbreak (i.e. who are not known cases) is generally not recommended during an outbreak.

Visitor restriction and signage

During an outbreak, preferably, minimize the movement of visitors into and within the facility. If recommended by the outbreak management team:

- Suspend group social activities that involve visitors such as musicians
- Postpone visits from non-essential external providers
- Inform regular visitors and families of residents and of the outbreak of influenza and request they only undertake essential visits; discourage unnecessary visitors
- Ask those who do visit an ill resident, to:
    - Visit only one resident
    - Enter and leave directly without spending time in communal areas
    - Use an alcohol based hand rub or wash their hands before and after visiting
    - If giving direct care, use PPE as directed by staff
    - Initiate passive screening for respiratory symptoms using "Attention Visitors" signage ***(refer to Appendix 4)*** and reminding visitors:
        - Not to visit if unwell

- To limit visiting to one resident
- To follow signs for the use of PPE, as indicated
- To practice hand hygiene and respiratory hygiene/cough etiquette
- Post "Attention Visitors" signs at the entrance(s) and other strategic locations in the facility ***(refer to Appendix 4)***
- Initiate active screening (incoming visitors report to the desk) as required

SECTION 6 STAFFING

Allocation of staff

- Once resident isolation measures are in place, to further reduce the risk of transmission, it is preferable to allocate specific (vaccinated) staff to the care of residents
- These staff members should not move between their section and other areas of the facility, or care for other residents
- Staff members should self-monitor for signs and symptoms of respiratory illness and self-exclude from work if unwell
- When ILI is apparent, influenza can be spread within the facility by unvaccinated staff, who should work only if well and wearing a mask

SECTION 7 MONITORING

Effective outbreak management has four phases:

- Preparation: plan is in place
- Response: to activate the outbreak management plan
- Monitor outbreak progress: assess and modify outbreak control activities
- Conclusion: declare the outbreak over, review events and lessons learned for future outbreaks

Monitoring the outbreak

- Management and Administration should update listing with new information daily, by midday (or another agreed time), or more frequently if major changes occur, and communicate this to the PHU each day (as arranged, by email (preferred), fax or telephone).

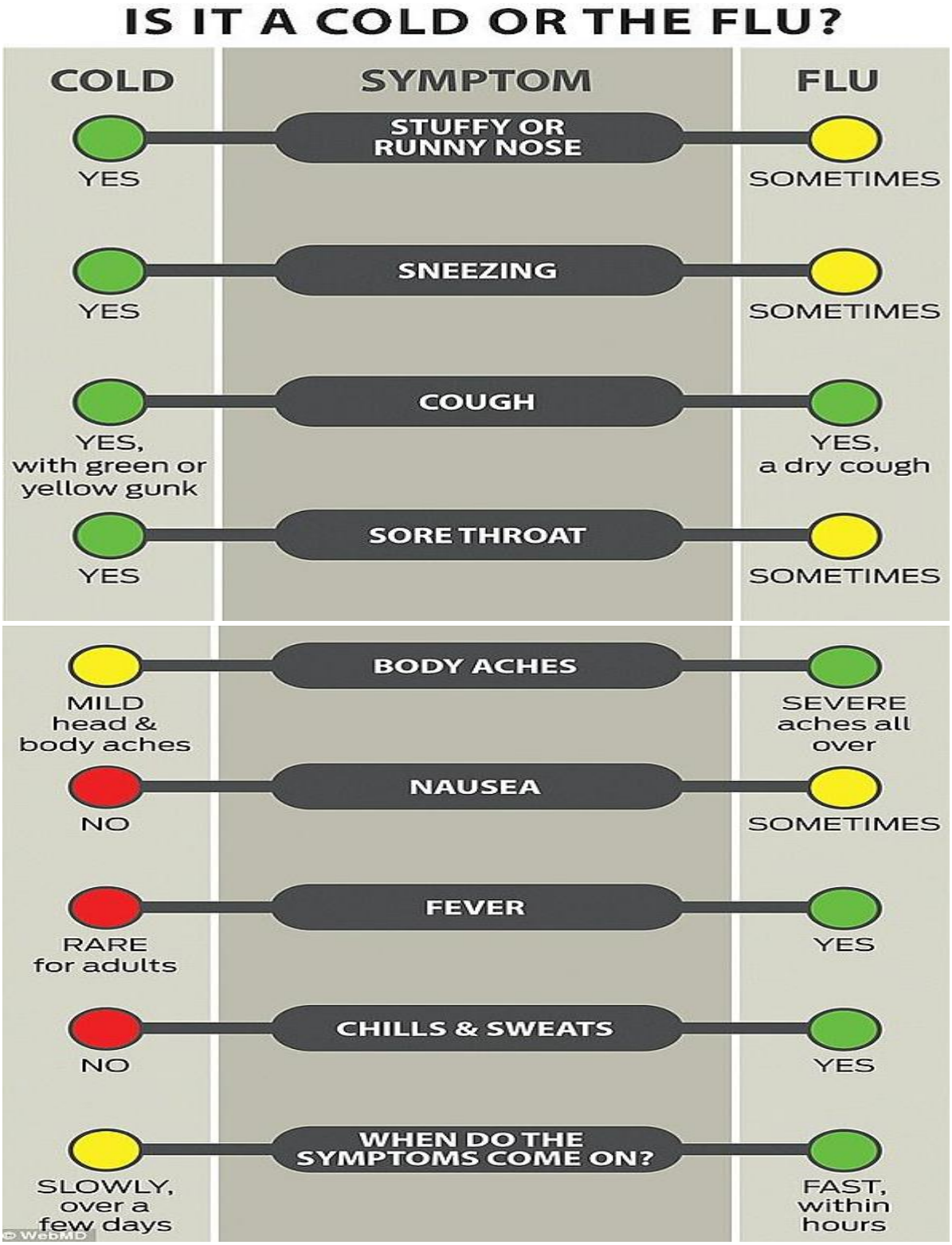
Ongoing resident surveillance should include the following

- Monitoring residents for ILI symptoms
- Addition of all new cases added to resident list
- Updating the status of ill residents: hospitalised, recovered, deceased
- Recording the use of antiviral prophylactic medication and any adverse reactions to or cessation of any prescribed antiviral medication

Ongoing staff surveillance should include all the following:

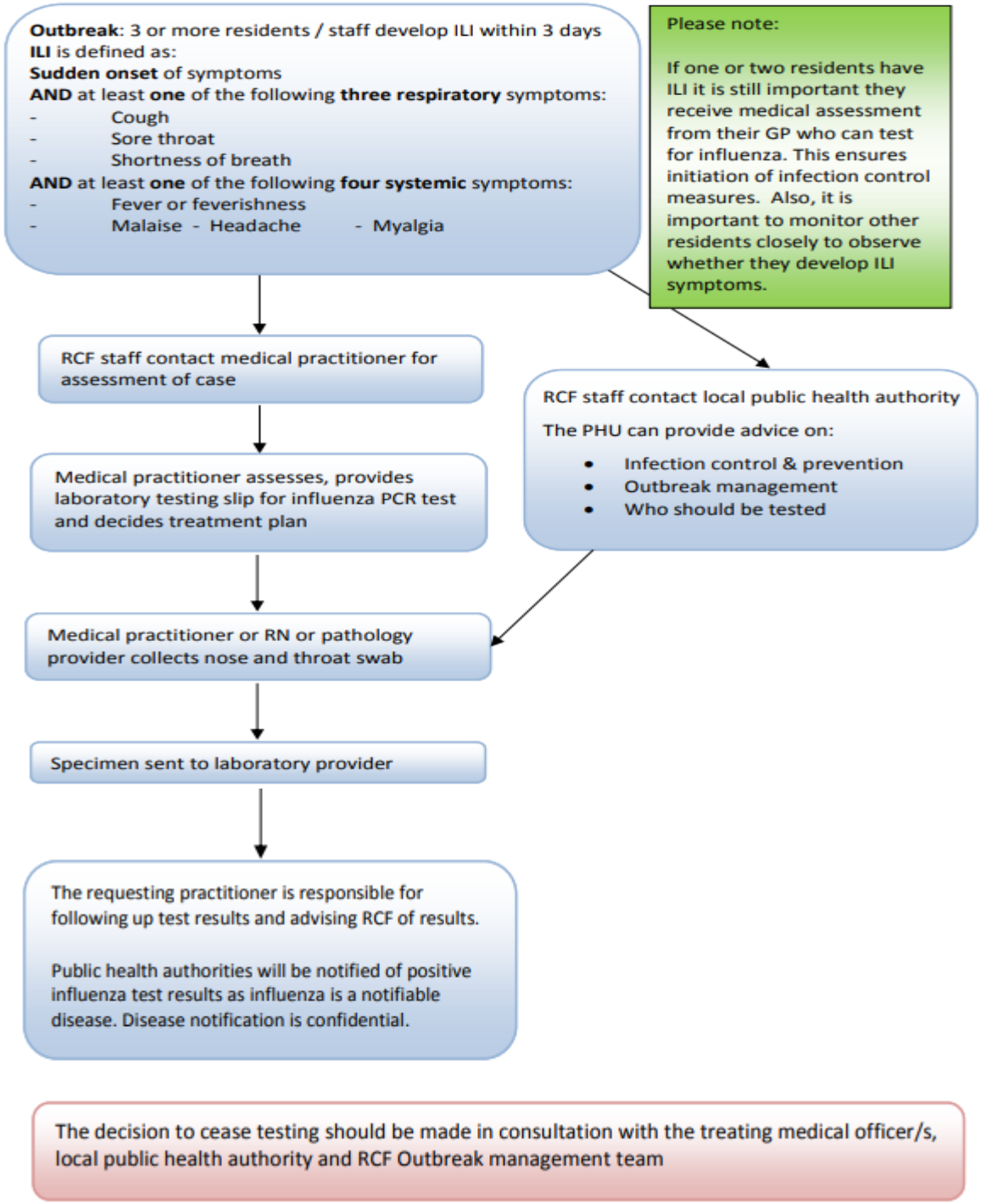
- Addition of all new staff cases to the staff list
- Identification of staff who have recovered, and confirmation with the PHU of their return to work date

APPENDIX 1


IS IT A COLD OR THE FLU?
COLD
SYMPTOM
FLU
STUFFY OR RUNNY NOSE
YES
SOMETIMES
SNEEZING
YES
SOMETIMES
COUGH
YES, with green or yellow gunk
YES, a dry cough
SORE THROAT
YES
SOMETIMES
BODY ACHES
MILD head & body aches
SEVERE aches all over
NAUSEA
NO
SOMETIMES
FEVER
RARE for adults
YES
CHILLS & SWEATS
NO
YES
WHEN DO THE SYMPTOMS COME ON?
SLOWLY, over a few days
FAST, within hours
© WebMD

APPENDIX 2

What to do when a suspected outbreak of influenza-like illness (ILI) is identified (3 or more residents / staff develop ILI in the same 3 days)



APPENDIX 3

Appendix 1 Resident transfer advice form

To: _____

_____

_____

Please be advised that _____
is being transferred from a facility where there is a:

Suspected influenza outbreak ☐

Confirmed influenza outbreak ☐

Please ensure that appropriate infection control precautions are taken upon receipt of this **resident.**

At the time of transfer, this resident was:

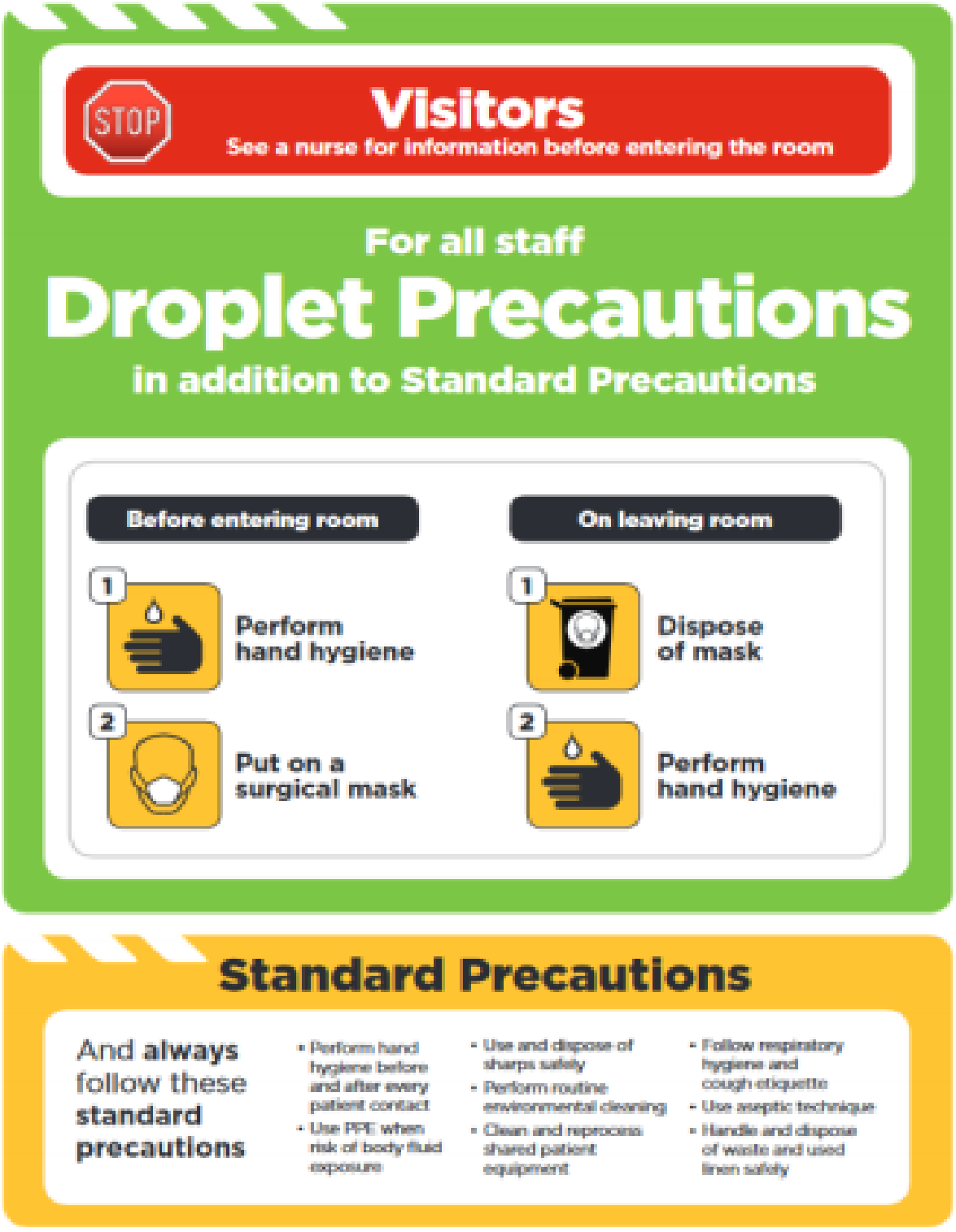
Confirmed with influenza ☐

Suspected of influenza ☐

Had no symptoms of influenza ☐

This resident was vaccinated with the current influenza vaccine on__ /__ /____.

APPENDIX 4


STOP
Visitors
See a nurse for information before entering the room
For all staff
Droplet Precautions
in addition to Standard Precautions
Before entering room
1
Perform hand hygiene
2
Put on a surgical mask
On leaving room
1
Dispose of mask
2
Perform hand hygiene
Standard Precautions
And always follow these standard precautions
• Perform hand hygiene before and after every patient contact
• Use PPE when risk of body fluid exposure
• Use and dispose of sharps safely
• Perform routine environmental cleaning
• Clean and reprocess shared patient equipment
• Follow respiratory hygiene and cough etiquette
• Use aseptic technique
• Handle and dispose of waste and used linen safely

Attention all visitors

A number of people have influenza-like illness in this facility at present. We are trying to prevent this illness from spreading.

Visitors are advised that there is a risk of acquiring influenza-like illness by visiting this facility at this time.

We ask you not to enter this facility if you currently have symptoms of an influenza-like illness (fever, sore throat, cough, muscle and joint pains, tiredness or exhaustion), or have recently been ill, or have been in contact with someone who is ill.

Please follow the recommended infection control precautions on the signs when visiting.

Thank you for your cooperation.

Droplet precautions

Put on a SINGLE-USE FACE MASK
before entering this room!

Please follow standard precautions at all times:

- **Wash** your **hands** thoroughly
- **Wear gloves** when touching body fluids or substances and contaminated items or surfaces
- **Wear** a **gown** or apron during care activities where your clothing may come into contact with body fluids or substances

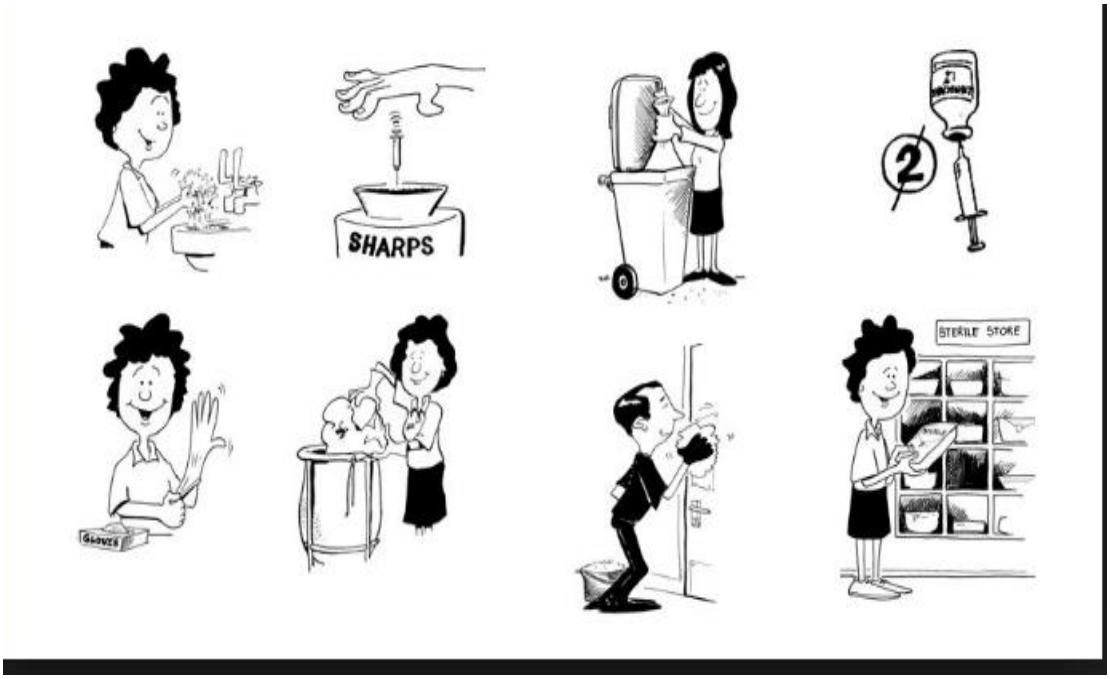
Thank you for your cooperation.

APPENDIX 5

Transmission-based precautions are "good" work practices

- Use of PPE, maintain a 1 metre distance between the infected resident and others
- Staff must change their PPE after every contact with an ill resident, when moving from one room to another or from one resident care area to another
- All staff must perform:
    - hand hygiene after every contact with an ill resident
    - after being in contact with contaminated surfaces
    - whether or not gloves are worn - when visibly soiled with body fluids and/or substances, use water and liquid soap for hand washing
- Single-use surgical face masks should be worn by staff when exposure to respiratory droplets is likely, that is, when within 1m of an affected resident:
    - The mask should be put on when entering the room
    - Remove the mask after leaving the room, handling only by the tapes, and place in a clinical waste bin
    - Perform hand hygiene after disposing of the mask
    - Never re-use masks
    - When undertaking activities that require an infected resident to leave their room, the resident should wear a mask if tolerated
- Encourage good cough etiquette
- Eye protection includes the use of safety glasses, goggles or face shields but does not include personal eye glasses.
    - Goggles or other protective eyewear must be disposed of, or where approved for re-use, cleaned after use
    - Eyes should be protected where there is potential for splattering or spraying of blood, body fluids, secretions or excretions, including coughing
- Use resident-dedicated equipment where possible
    - Ideally, any care equipment should be dedicated for the use of an individual resident. If resident care equipment must be shared, the items must be cleaned and disinfected between each resident use.
- Allocate ill residents to single rooms
- Enhanced cleaning and disinfection of the ill resident's environment
    - Influenza viruses can persist on hard surfaces and remain viable for up to 24 hours on hard, non-porous surfaces.
    - Infectious influenza virus can be transferred to hands from these surfaces for at least 2 – 8 hours after contamination of the surface
    - Frequently touched surfaces are those closest to the resident, and should be cleaned more often (for example - bedrails, bedside tables, commodes, doorknobs, sinks, surfaces and equipment close to the resident), use sodium hypochlorite 100mL in 1L of water (1:10 solution)

- Linen should be laundered using hot water and detergent
    - Linen should be dried on a hot setting in a dryer
    - There is no need to separate the linen of ill residents from that of other residents
    - Appropriate PPE should be used when handling soiled linen.
- Crockery and cutlery should be washed in a dishwasher



Hand hygiene

- A most important key to prevention and further spread of infection is good hand hygiene.
- Hand hygiene means rubbing hands with an alcohol based hand rub OR washing them with liquid soap and water and drying with a single-use towel.

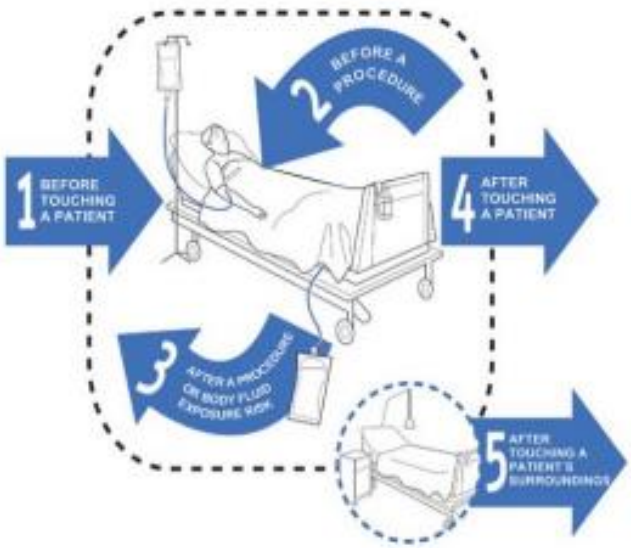
Hand hygiene will NOT be effective if any of the following are present:

- Skin with cracks, cuts or dermatitis – cover all cuts or abrasions
- Hand and arm jewellery
- Nails longer than 3-4mm, or with chipped or worn nail polish, or artificial nails, or nail enhancements.

Hand hygiene must be performed in all situations described in the table below regardless of whether gloves are used. NB: staff must perform hand hygiene before applying gloves and after removing gloves as the removal process can cause contamination resulting in further infections.

Figure: The 5 moments of hand hygiene

1	BEFORE RESIDENT CONTACT	WHEN? WHY?	Clean your hands before touching a resident. *To **protect** the **resident** against harmful organisms carried on your hands.*
2	BEFORE ASEPTIC TASK	WHEN? WHY?	Clean your hands immediately before any aseptic task **and** before donning gloves. *To **protect** the **resident** against harmful organisms, including the residents own organisms, entering his or her body.*
3	AFTER BODY FLUID EXPOSURE	WHEN? WHY?	Clean your hands immediately after an exposure risk to body fluids and after glove removal. *To **protect yourself** and the care **environment** from harmful organisms.*
4	AFTER RESIDENT CONTACT	WHEN? WHY?	Clean your hands after touching a resident and his or her immediate surroundings, when leaving. *To **protect yourself** and the care **environment** from harmful organisms.*
5	AFTER CONTACT WITH RESIDENT SURROUNDINGS	WHEN? WHY?	Clean your hands after touching any object or furniture in the resident's immediate surroundings, when leaving – even without touching the resident. *To **protect yourself** and the care **environment** from harmful organisms.*



Based on the 'My 5 moments for Hand Hygiene'. URL: http://www.who.int/gpsc/5may/background/5moments.en/index.html © World Health Organization 2009. All rights reserved.

How to Handwash?

WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB

Duration of the handwash (steps 2-7): 15-20 seconds

Duration of the entire procedure: 40-60 seconds

0

Wet hands with water;

1

Apply enough soap to cover all hand surfaces;

2

Rub hands palm to palm;

3

Right palm over left dorsum with interlaced fingers and vice versa;

4

Palm to palm with fingers interlaced;

5

Backs of fingers to opposing palms with fingers interlocked;

6

Rotational rubbing of left thumb clasped in right palm and vice versa;

7

Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;

8

Rinse hands with water;

9

Dry hands thoroughly with a single use towel;

10

Use towel to turn off faucet;

11

Your hands are now safe.

World Health Organization | Patient Safety | SAVE LIVES Clean Your Hands

How to Handrub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS WHEN VISIBLY SOILED

Duration of the entire procedure: 20-30 seconds

Apply a palmful of the product in a cupped hand, covering all surfaces;

Rub hands palm to palm;

Right palm over left dorsum with interlaced fingers and vice versa;

Palm to palm with fingers interlaced;

Backs of fingers to opposing palms with fingers interlocked;

Rotational rubbing of left thumb clasped in right palm and vice versa;

Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;

Once dry, your hands are safe.

World Health Organization | Patient Safety | SAVE LIVES Clean Your Hands

Respiratory hygiene information

- Respiratory hygiene and cough etiquette is one element of standard precautions.
- Covering sneezes and coughs can minimise or prevent infected persons from dispersing respiratory secretions into the air.
- Large droplets are believed to be the primary mode of transmission for influenza viruses and these occur when infected individuals cough or sneeze.
- The droplets do not remain suspended in the air and generally travel short distances (up to 1 metre).
- Hands should be washed with soap and water or alcohol hand rub after coughing, sneezing, using tissues, or after contact with respiratory secretions or objects contaminated by these secretions. It is important to keep contaminated hands away from the mucous membranes of the eyes and nose.

Cough Etiquette

- When coughing or sneezing, use a tissue to cover your nose and mouth
- Dispose of the tissue afterwards
- If you don't have a tissue, cough or sneeze into your elbow

- After coughing, sneezing or blowing your nose, wash your hands with soap and water
- Use an alcohol-based hand cleanser if you do not have access to soap and water

Remember: hand hygiene is the single most effective way to reduce the spread of germs that cause respiratory disease.

Anyone with signs and symptoms of respiratory infection, regardless of the cause,

- **should be instructed to cover their nose/mouth when coughing or sneezing;**
- **use tissues to contain respiratory secretions;**
- **dispose of tissues in the nearest waste receptacle after use; and**
- **wash or cleanse their hands afterwards.**

Personal protective equipment (PPE) **PPE is an important element of standard precautions**

- Explain to residents that PPE is used for everybody's safety!
- PPE for resident care staff during an influenza outbreak includes the following:
    - Gown
    - Gloves (Gloves are single-use items)
    - Single-use surgical facemask with or without face shield
    - Eye protection (if there is potential for mucous membranes to come into contact with body fluids, for example a coughing person)

Another important sequence is the removal of PPE before leaving the resident-care area, i.e. at the door, and to place the PPE in an appropriate waste receptacle.

The use of PPE alone is not enough— YOU MUST perform hand hygiene before putting on and after removing the protective item.

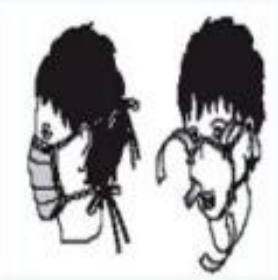
SEQUENCE FOR PUTTING ON PPE

GOWN

- Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
- Fasten at the back of neck and waist

MASK

- Secure ties or elastic bands at middle of head and neck

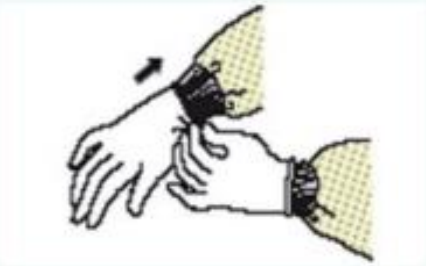


PROTECTIVE EYEWEAR OR FACE SHIELD

- Place over face and eyes and adjust to fit

GLOVES

- Extend to cover wrist of isolation gown



SEQUENCE FOR REMOVING PPE

REMOVE PPE AT DOORWAY OR IN ANTEROOM

GLOVES

- Outside of gloves is contaminated!
- Grasp outside of glove with opposite gloved hand; peel off
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist
- Peel glove off over first glove
- Discard gloves in waste container

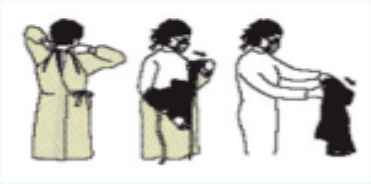
PERFORM HAND HYGIENE

PROTECTIVE EYEWEAR OR FACE SHIELD

- Outside of eye protection or face shield is contaminated!
- To remove, handle by head band or ear pieces
- Place in designated receptacle for reprocessing or in waste container

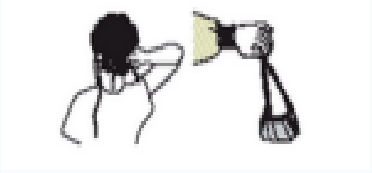
GOWN

- Gown front and sleeves are contaminated!
- Unfasten ties
- Pull away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Fold or roll into a bundle and discard



MASK[1]

- Front of mask is contaminated – DO NOT TOUCH!
- Grasp bottom, then top ties or elastics and remove
- Discard in waste container



Environmental cleaning

Step 1: Cleaning

Note: rooms of well residents should be cleaned first.

- Use warm water with a neutral detergent
- Refer to the product material Safety Data Sheet and product labels for additional information
- Rinse and dry
- Note: Some chlorine/detergent products with 1000ppm sodium hypochlorite can be used as a one-step cleaning/disinfection process
- Cleaning staff must wear PPE
- Cleaning cloths should be disposed of in a biohazard bag

Step 2: Disinfect

- A general recommendation is to use either a neutral detergent followed by 1000ppm sodium hypochlorite*, or*
- A one-step product with 1000ppm sodium hypochlorite (more practical)
- Disinfection is an additional step to cleaning and does not replace cleaning
- Use either chlorine disinfectant or alternatively, alcohol
- Disinfect all:
    - Horizontal surfaces
    - Bedside table – over bed table
    - Chairs
    - Commodes
    - Doorknobs
    - Toilet flushers
    - Taps
    - Handrails
    - Basins
    - Walking frames
    - Note: Floors require cleaning with warm water and neutral detergent
    - Clothes and bed linen can be laundered as usual

Step 3: Chlorine solutions

- If using chlorine solution, leave on for 10 minutes then rinse off with hot or cold water and dry
- Preparing chlorine solutions at concentrations required for disinfection
    - Chlorine solutions must be freshly made up and used within 24 hours, as chlorine deteriorates over time.
    - A general recommendation for the use of a sodium hypochlorite solution is a concentration of 1000ppm, 100mL in 1L of water (1:10 solution)
    - At this strength, in a one-step product, it is not necessary to rinse off
    - Follow the manufacturer's instructions for use of this product

- Important safety notes when using chlorine as disinfectant
    - Follow safety and handling instructions on all chlorine containers
    - It is safer to add chlorine to the water - do not add water to chlorine
    - Always use cold or warm (tepid) water to make up chlorine solutions
    - Use gloves when preparing and handling chlorine solutions
    - Use chlorine carefully as it may irritate the skin, nose and lungs and it bleaches fabrics
    - Do not dispense chlorine solutions from a spray bottle
    - Chlorine is corrosive to metals
    - Rinse off
    - Use in well ventilated areas
    - Do not mix with strong acids to avoid release of chlorine gas

Step 3: Alcohol disinfectant

- Use on surfaces not suitable for chlorine disinfectants
- Do not dilute
- Do not rinse off
- Not particularly practical for large areas
- Flammable, toxic, avoid inhalation, use in well ventilated area, keep away from heat sources, flames, electrical equipment and hot surfaces

APPENDIX 6

Testing for influenza fact sheet

Why test for influenza viruses during flu season?

- It is important to identify the pathogen causing illness to determine whether there is an outbreak of influenza in a facility, as many respiratory illnesses have similar signs
- Confirmation of influenza helps clinicians make appropriate clinical decisions about treatment of those who are sick, and reduces inappropriate use of antimicrobials
- Knowing the infectious agent helps the public health authority advise and assist in managing the outbreak, control the spread of the illness, and prevent further cases
- Specialised testing provides important information on the types of influenza viruses circulating in the community, and contributes to assessing how effective current vaccines are and in developing new vaccines

When should you test and who should be tested?

- When an outbreak of influenza-like illness (ILI) occurs, that is, if three or more residents or staff develop symptoms of ILI during the same 3-day time period
- If a resident has symptoms of an influenza-like illness (ILI) including:
    - Sudden onset of fever, chills, myalgia or clinically documented temperature of $\geq 38^0$C PLUS two or more of the following
        - Headache
        - Malaise
        - Cough
        - Sore throat
- The resident's GP can assess the ILI and request a test for influenza and other pathogens
- Testing should be performed as soon as possible after the onset of ILI symptoms
- During an outbreak, a sample of people with ILI should be tested (usually 4-6 people with ILI)
- Rapid antigen testing is carried out at the Laboratory at Hawke's Bay Hospital. The decision to send for PCR testing lies with the Medical Officer of Health.
- The most definitive test is a reverse transcription Nucleic Acid Amplification Test (NAAT or NAT). This is also known as a Polymerase Chain Reaction (PCR) test. This test is used because:
    - It is the most sensitive (best able to correctly identify patients who have influenza)
    - It is the most specific (best able to correctly identify people who don't have influenza)
    - It is relatively rapid
    - It enables us to differentiate

Swab collection procedure

1. Before performing swab
    - Obtain required materials:
        - Personal protective equipment (PPE) for the health care worker taking the swab, including gown, gloves, eye protection (goggles or face shield), and surgical mask.
        - One dry, sterile, flocked swab.
        - One viral culture swab with viral culture medium. IMPORTANT NOTE: Contact laboratory for current local advice about swabs.
    - Swabs should only be collected from residents or staff with acute symptoms (onset within the preceding 3 days, i.e. 72 hours).
    - Do not use bacterial swabs for specimen collection. If in doubt, check!
2. Performing the swabs
    - Preparation:
        - Perform hand hygiene
        - Don PPE in the order of gown, surgical mask, eye protection, and gloves
3. Explain the procedure to the resident and obtain consent

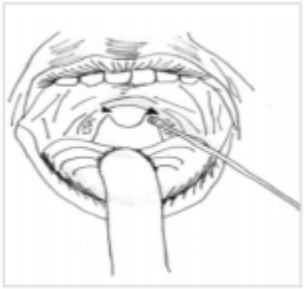
Deep nasal swab procedure:

- Stand at the side of the resident's head and place your non-dominant hand on the patient's forehead with your thumb at the tip of the nose
- With the other hand, insert the flocked end of a dry, sterile swab horizontally into the resident's nostril, approx. 2-3 cm (gently pushing the swab directly back rather than up)
- Place lateral pressure on the swab to collect cells from the midline nasal septum
- Rotate the swab twice (2 x 360 degree turns) against the turbinate in the nostril to ensure the swab contains epithelial cells (not mucus) from the nostril
- Withdraw the swab from the nostril
- Place the swab back in its labelled tube or bottle.

Throat swab procedure:

- Stand at the side of the resident's head and ensure their head is resting against a wall or supporting surface

- Place your non-dominant hand on the patient's forehead
- Ask the resident to open his/her mouth widely and say "aaah"
- Use a wooden spatula to press the tongue downward to the floor of the mouth, this will avoid contamination of the swab with saliva
- Using the viral culture swab, insert the swab into the mouth, avoiding any saliva
- Place lateral pressure on the swab to collect cells from the tonsillar fossa at the side of the pharynx
- Rotate the swab twice (2 x 360 degree turns) against the tonsillar fossa to ensure the swab contains epithelial cells (not mucus)
- Remove the swab, and place directly into its labelled tube or bottle



- IMPORTANT NOTES
    - Choose an area for the procedure where the resident can rest their head against a wall or on a high-backed chair with room for you to stand beside (not in front of) the patient
    - Ensure the area is well lit, with hand washing and infectious waste disposal facilities
    - Remember to WASH AND DRY HANDS before and after the procedure!
    - Gloves, respiratory protection and eye protection MUST be worn when collecting nose and throat swabs
    - Masks should NOT be touched during wear and should NOT be worn around the neck at any time
    - When removed, handle the mask by the ties of the mask only.
- After performing the swab labelling and storage of specimen
    - Label the tube or bottle containing the swabs with the resident's full name, date of birth, specimen type and date of collection
    - The accompanying request form should include the ARC facility name
    - Remove PPE safely (remove gloves, perform hand hygiene, remove goggles or face shield, gown and mask and perform hand hygiene again)
    - Specimens should be sent on the day of collection, or at worst, the following day, refrigerate the specimen until it is sent to the laboratory (do NOT freeze the specimen)
    - IMPORTANT NOTE: Dispose of gloves, gowns and masks in an infectious waste bag

APPENDIX 7 MANAGEMENT

Outbreak Management Team tasks during an influenza outbreak

Outbreak Management Team (OMT) comprises of:

- Clinical Director
- Quality Co-Ordinator
- Clinical Co-ordinators
- Nominated Infection Prevention and Control Representatives of each Facility

Key areas

- Quality Co-Ordinator
    - Decide on and organise ongoing OMT meetings and location
    - Arrange and undertake a debrief at the conclusion of the outbreak
    - Public health authority liaison (HBDHB), ensure that telephone contact numbers for the PHU (including out-of-hours) are available to facility staff
    - Inform the PHU immediately by phone of hospitalisations or deaths in residents or staff
    - Confirm the implementation of the exclusion policy for staff who refuse vaccination or antiviral medications
    - Communication - prepare and implement a communication plan, including a draft media release if required
    - Prepare internal communications for resident, family and staff groups
- Clinical Director/Clinical Co-Ordinators
    - Update the list daily and communicate
    - Liaise daily with the PHU to discuss results of testing, and for advice on infection prevention and control measures, as needed
    - Infection prevention and control within Facility
        - Ensure staff have adequate training and equipment for infection prevention and control measures
        - Manage resident movement within the Facility, including isolation and cohorting, restrict group activities for residents, and defer transfers out, and new admissions into
        - Review the vaccination status of staff and residents and recommend/offer vaccination to those who are unimmunised
        - Implement contingency plans for staffing
        - Placement of signs
        - Update staff regularly on outbreak management and control measures and progress
        - Communicate, as needed, with GPs on individual resident results (where testing was requested by the PHU) and the outbreak in general

- Vaccination. In consultation and with advice from appropriate local medical practitioners, determine if influenza vaccination clinics are required for unvaccinated residents or unvaccinated staff and if needed, how they will be arranged. PHUs may be able to assist in some circumstances.
- Antiviral medication for treatment or prophylaxis
    - In consultation with and advice from GPs, arrange antiviral medications for treatment of ill residents and staff, as appropriate
    - When recommended by the PHU, consult with GPs of residents and arrange antiviral prophylaxis, as prescribed by GPs, for (preferably) all asymptomatic residents and unvaccinated staff

Outbreak Planning

		☑
Planning actions:		
1.	Do you have an influenza/respiratory infection outbreak plan? **Make sure it covers all the areas identified below*	
2.	Have you updated the influenza/respiratory infection outbreak plan this year?	
3.	Have the relevant healthcare providers/organisations in the community (e.g. associated GPs) been involved in the planning process?	
4.	Does the plan contain an agreement between your facility and associated GPs to provide medical care during weekends and public holidays?	
5.	Are facility staff aware of the plan and their roles and responsibilities?	
Vaccination actions:		
6.	Does you facility achieve a high (>90%) rate of annual vaccination of both staff and residents?	
7.	Does your facility have an up-to-date (at mid-April) consolidated line listing of all residents' influenza and pneumococcal vaccination status?	
8.	Does your facility have up-to-date (at mid-April) consolidated listing of all staff members' influenza vaccination status?	
Outbreak recognition actions:		
9.	Does your facility routinely *assess* residents for influenza-like illness from April to October?	
10.	Does your facility encourage staff to report influenza-like illness symptoms from April to October?	
11.	Does a process exist to notify the Clinical Director and Outbreak Co-coordinator (infection prevention and control practitioner) and public health unit as soon as practicable and within 24 hours of when outbreak is suspected?	
Antiviral actions:		
12.	Have you consulted with visiting GPs to develop the antiviral component of the plan?	
13.	Are mechanisms for prescribing antivirals for treatment and prophylaxis in a timely manner identified?	
Staffing actions:		
14.	Do you have a staffing contingency plan in case 20% - 30% of staff fall ill and are excluded for 5 -6 working days?	

15.	Have you developed a plan for cohorting staff in an outbreak (well unvaccinated staff only working in areas with no resident cases)?	
16.	Have you developed plans to support staff during an outbreak, such as through provision of antiviral treatment or prophylaxis?	
Planning actions:		
Communication actions:		
17.	Do you have a contact list for the public health unit?	
18.	Do you have a plan for communicating with staff, residents, volunteers an family members during an outbreak?	
19.	Have key personnel been designated to manage the needs of media e.g. by preparing draft media releases?	
Resident management actions:		
20.	Have you considered the need for restriction of movement, and, access to group/communal living areas, as well as external transfers?	
Visitor actions:		
21.	Do you have a contact list for regular visitors including residents' families, allied health, and service providers such as hairdressers?	
22.	Do you plan to discourage visitors with ILI from entering the facility during an outbreak, as well as external transfers?	
23.	Have facility personnel been designated to control and respond to issues that arise due to visitors?	
Training:		
24.	Does your outbreak plan include appropriate training for staff? For example – caring for self, hand hygiene, PPE use, contact/isolation precautions	
25.	Do you provide outbreak education material at staff orientation to raise staff awareness?	
Cleaning:		
26.	Does the plan identify who is responsible for overseeing increased frequency of cleaning, liaison with contractors or hiring extra cleaners as necessary?	
27.	Does the plan include arrangements for increased of emptying bins?	

Infection control checklist for outbreaks in facility	Task	☑
Do we have an outbreak? "3 or more residents/staff fall ill with influenza-like illness within 3 days"	**If yes: Activate** Influenza management plan by following the steps listed below:	
	Inform most senior Facility management staff on duty	
	Access Influenza outbreak stores	
Notifications Inform staff, residents, public health authorities, doctors of ill residents, and visitors	**Inform all staff** of potential outbreak and advise of increased hygiene measures	
	Inform all residents of possible outbreak of ILI; provide information, including symptoms and hygiene measures.	
	Notify the Public Health Unit **(PHU)**. ➢ **Email (preferred)** or **fax** a list of current unwell residents/staff to PHU (update daily). ➢ **Ensure onset-of-illness dates** are **recorded** for each ill resident. ➢ **Notify** PHU within 24 hours of **deaths** or **hospitalisations** (and record these on the list) ➢ **Once a pandemic is established daily reporting is required to the Emergency Operations Centre at Hawke's Bay Hospital** (see page 42)	
	Advise resident's GPs of the possible outbreak. ➢ Unwell residents should be reviewed by their GPs	
	Inform visitors by notices in facility; provide information on influenza, discourage non-essential visits	
Infection control Implement additional infection control measures	**Isolate/**cohort ill residents in one area; separate infected from uninfected residents, where possible	
	Restrict infected (ill) residents to their room. ➢ Ensure signage is posted outside ill residents rooms	
	Ensure adequate supplies ➢ Ensure supplies of liquid soap, paper towels, alcohol gel or hand rub ➢ Ensure adequate supplies of person protective equipment (PPE) – masks, gloves, gowns	
	Implement enhanced infection and prevention controls. ➢ Increase hygiene measures for all staff – standard hygiene plus additional measures ➢ Instruct cleaning staff in regards to extra cleaning	

Infection Control ***Cont…***	**Restrict visitors:** ➢ Place signs on facility entrance door to restrict visitors to a minimum ➢ Ensure those with weakened immune systems are discouraged from visiting the facility, where practicable. (Particularly young children & people with compromised immune systems, e.g. people with HIV, major illness and those taking immunosuppressant drugs) ➢ Restrict the movement of visitors within the facility ➢ Ensure visitors practice hand hygiene ➢ Exclude visitors with influenza-like illness for at least 5 days after last symptoms	
Confirm the cause of outbreak i.e. arrange collection of appropriate laboratory samples	**Through residents' GPs, arrange nose and throat swabs for respiratory PCR testing** from four to six cases with acute symptoms (ideally within 48 hours of onset of symptoms)	
	Liaise with the Public Health Unit about sending the swabs to the laboratory, if needed	
	Record on the list residents who have swabs taken, update with results when available and email to public health unit	
Manage Staff	**Only vaccinated staff** should care for residents with respiratory illness, where possible	
	Exclude infected staff from work for 5 days from onset of illness, or 24 hours after resolution of fever	
	Unvaccinated staff should be excluded from work unless they are asymptomatic and wearing a mask, or asymptomatic and taking appropriate antiviral prophylaxis (Unvaccinated staff are recommended to only work if asymptomatic; AND taking prophylaxis or using PPE.)	
Vaccination	**Offer influenza vaccinations** for all well, unvaccinated staff and residents, if appropriate.	

*****This checklist is designed for the review of infection prevention and control procedures by the outbreak coordinator and to prompt other actions to optimize infection

Name of facility: **Date:** ___ / __ /___ **Contact details /Contact person: _____**

Y/N	Questions/Prompt	Comments
Facility Information:		
	Total number of residents at the facility	
	Total number of staff at the facility	
	Date of onset of first illness	
	Number/locations of ill residents	
	Number/work location of ill staff	
	Dementia unit: ☐ Is there a dementia unit at the facility? ☐ Does the outbreak involve dementia patients? ☐ Can the unit be isolated?	
	Restriction of non-essential visitors: ☐ For example, hairdressers	
	Restrict transfer of residents to other facilities: ☐ **Advice:** The facility should notify hospital and ambulance service of the outbreak, if residents require hospitalisation ☐ Preferably, do not admit people for respite care until the outbreak is over (or discuss with family re risk)	
	Restrict movement of residents: ☐ Suspend communal resident group activities ☐ If possible, minimize movement of residents within facility	
	Notification: ☐ Notify Public Health Unit re outbreak, hospital transfers, deaths, additional cases	
	Signage: ☐ **Advice:** Consider warning signage - At entry to the facility - At entry to ill residents' room - Hand hygiene signs **Resources:** ☐ Fact sheets for visitors/families	

Y/N	Questions/Prompt	Comments
Staff:		
	Stress the importance of hand hygiene	
	Advice re **exclusion** of ill staff: □ Staff should monitor their health during the course of the outbreak □ If symptoms of influenza are experienced, the staff member should not attend work until 5 days after the onset of illness or until symptoms have completely resolved (whichever is longer)	
	Restrict movement of staff: □ Staff working in the affected area should not work in other areas of the facility during the outbreak □ If possible, designated vaccinated staff should care for ill residents □ Staff should not work at other facilities during the outbreak	
	Agency staff: □ Are agency staff employed at the facility? □ Are agency staff also employed at other facilities? □ Recommend that agency staff employed at the facility not work at other facilities during the outbreak	
	Isolate/cohort ill residents: □ Do ill residents have single rooms with ensuites? □ If no ensuite, can ill residents share a bathroom with other ill residents? □ **Advice:** Ill residents should be isolated in their rooms until 5 days after the onset of acute illness or until symptoms have completely resolved (whichever is longer)	
Hand Washing Facilities:		
	□ Stress importance of handwashing □ Are liquid soap and paper towels available? □ Where are they located? □ **Advise: Use of alcohol hand rub** o Staff o *Residents* - e.g. in dining room; at bedside if practicing respiratory hygiene and cognitively able to use hand rub o *Visitors* - On entry and departure to the facility	
Personal Protective Equipment (PPE):		
	□ Should be readily accessible; location outside ill resident's rooms □ Dispose of used PPE into yellow infectious waste bags □ Gloves, long sleeve gowns, masks- to be worn by: o Staff or visitors caring for ill residents o Staff cleaning ill resident's rooms/bathrooms	

Y/N	Questions/Prompt	Comments
Cleaning:		
	☐ Are cleaners wearing appropriate PPE? ☐ Are they cleaning with correct detergent and water? ☐ Increase frequency of wiping frequently touched surfaces with detergent and water, e.g. hand rails, door handles, counter tops ☐ Are cleaners moving FROM clean to 'dirty' areas? ☐ Segregate equipment used for cleaning ill resident's rooms from other cleaning equipment	
Laundry:		
	☐ Is the laundry cleaned on site? ☐ Are laundry staff wearing appropriate PPE? ☐ Are there handwashing facilities in the laundry? ☐ Washing of resident's personal items requires an appropriate detergent and hot water ☐ *NB* Contaminated linen does not need to be held or transported separately from other laundry	
Infectious Waste:		
	☐ Where is it stored?	

Resident illness report and Tracking form

*Update daily and email or FAX each weekday to Public Health Unit.

Table A13.2 Resident illness report – example line list

FACILITY NAME:	**RESIDENT illness**	**DATE PUBLIC HEALTH NOTIFIED:** **TIME PUBLIC HEALTH NOTIFIED:**
TELEPHONE: AFTER HOURS CONTACT:		
FAX:		
EMAIL:		
FORM COMPLETED BY:		

FACILTY AREA(S):			**DATE:**						**DATE OUTBREAK DECLARED:**					**DATE OUTBREAK DECLARED OVER:**			
Name of resident **(Surname, Initial)**	Sex	D.O.B	New or worse cough Y/N	Fever Y/N	Sore Throat Y/N	Joint Pain or Muscle Ache Y/N	Extreme Fatigue Y/N	Runny Nose Y/N	Other Symptom Specify or put NONE Or no other sx	Date First Onset of symptom DD/MM/ YY	Date Swab Test Taken DD/MM/ YY	Result Flu A, B, RSV etc.	Date of Last Flu Vaccine MM/YY	Date Antiviral Started DD/MM	Date of Recovery DD/MM	Date of resident Hospital admission DD/MM	Resident Date of Death DD/MM

Staff Illness Report and Tracking Form (Example) - Update daily and email or FAX each weekday to Public Health Unit.

FACILITY NAME:	**STAFF ILLNESS**	**DATE PUBLIC HEALTH NOTIFIED:** **TIME PUBLIC HEALTH NOTIFIED:**
TELEPHONE: AFTER HOURS CONTACT:		
EMAIL:	**FAX:**	
FORM COMPLETED BY:		

FACILTY AREA(S):			**DATE:**						**DATE OUTBREAK DECLARED:**						**DATE OUTBREAK DECLARED OVER:**			
Name of Staff Member **(Surname, Initial)**	Sex	D.O.B	New or worse cough Y/N	Fever Temp Y/N	Sore Throat Y/N	Joint Pain or Muscle Ache Y/N	Extreme Fatigue Y/N	Runny Nose Y/N	Other Symptom Specify or put NONE Or no other sx	Date First Onset of symptom DD/MM/ YY	Date Swab Test Taken DD/MM/ YY	Result Flu A, B, RSV etc.	Date of Last Flu Vaccine MM/YY	Date Antiviral Started DD/MM	Date of Recovery DD/MM	Date last worked at RC? DD/MM	Date returned to work at facility DD/MM	Work at other RCF? DD/MM

Reporting During the Pandemic

Daily reports to Emergency Operations Centre at Hawke's Bay Hospital.

Number of beds in facility	
Occupancy	
Number of very unwell	
Number of deaths	
Number of staff – working	
Number of staff – required for assistance	
Stock requirement	