Northumberland, Tyne and Wear NHS
NHS Foundation Trust

Infection Prevention and Control Practice Guidance Note

Guidance for the Management of Patients with an Influenza-like Illness (ILI) or confirmed Influenza – V02

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Issue Notes

This guidance replaces all similar guidance issued by the former organisations

Key Points

- Practice Guidance Notes form part of the Trust's Infection Prevention and Control policy, and it is expected that staff will follow the guidance contained within them unless there is a compelling reason to deviate from it. Such reasons should be documented whenever the circumstance occurs and notified to the IPC team so that modifications to future editions can be made if necessary.
- The purpose of this guidance is to enable clinical staff to recognise the clinical symptoms of influenza (Flu) and to respond appropriately
- This practice guidance note incorporates Infection Prevention and Control advice to be followed to support the patient with an influenza like illness (ILI) or confirmed influenza and should be read in conjunction with the Seasonal Flu Vaccination Plan which is updated yearly
- In the event of an outbreak of an ILI or confirmed influenza, this guidance should be used to support IPC-PGN-06 - Major IPC Incidents (including major outbreaks)

1 Introduction

1.1 Influenza (Flu) is an acute respiratory illness often associated with the winter months. There are three types of flu virus Influenza A, B and C. A and B are responsible for most clinical illness and C rarely.

1.2 The incubation period for Influenza viruses ranges from 1- 4 days, typically 2-3 days. The infectious period lasts from the onset of symptoms until 3-7 days or until the patient is asymptomatic. The virus can be detected prior to the onset of symptoms. Children may continue to shed the virus up to 2 weeks after the onset of illness. Individuals who are immuno – compromised may remain infectious for a longer period of time.

1.3 Illness may range from mild to life threatening in those people who have underlying medical conditions. The most common complications of flu are bronchitis and secondary bacterial infections and in rare cases cardiac problems, meningitis, and encephalitis.

1.4 It is important that patients/service users with any of the following symptoms are identified to a clinician as soon as possible to ensure appropriate treatment. Influenza can spread rapidly within closed communities and it is important that potential outbreaks are identified early so that immediate steps are taken to prevent the spread of illness.

Clinical Presentation of a flu like illness:

- Sudden Onset
- Fever , between 38.9°- 40.0°C which may last 3-4 days
- Headache
- Muscle ache
- Dry cough
- Stuffy nose
- Sneezing
- Sore throat
- Lethargy (tiredness)
- Children may display symptoms of nausea and or vomiting and diarrhoea

All of the above symptoms may not be present

2 Case Definitions

2.1 The case definition may change according to the prevalent circulating strains and may be re defined according to the circumstances if an outbreak of an influenza-like illness (ILI) is declared. In the case of pandemic influenza the case definition may be determined by the specific features of the new circulating strain .The following definition may be used to identify a possible, probable and confirmed case of seasonal influenza.

- **Possible case**
  - A patient with signs and symptoms consistent with influenza
- **Probable case**
  - A patient with signs and symptoms consistent with influenza **and** with preliminary laboratory evidence of influenza infection
- **Confirmed case**
  - A patient with a confirmed laboratory diagnosis
  - It is important that patients who may have an ILI are identified as soon a possible to reduce the risk of transmission to other patients and staff

3. Diagnostic investigations

3.1 In discussion with the Infection, Prevention and Control (IPC) team the following should be considered:

- Naso-pharyngeal swabs - Nose and Throat swabs should be taken where the patient meets the case definition
- During an outbreak of an ILI the outbreak control team will decide if swabs are required
  - **Appendix 1 - Taking Viral Swabs, describes the process for collecting nasopharyngeal swabs**

NOTE

- Where a possible diagnosis may include a bacterial infection, e.g. pneumonia; consideration should be given to obtaining the following:
  - Sputum for culture and sensitivity and gram staining
  - Pneumococcal and Legionella urine antigen testing

4 Mode of transmission

4.1 Existing evidence supports a potential role for droplet, contact and aerosol transmission

4.2 Droplet

4.2.1 Droplets are generated by coughing, sneezing and talking and remain in the air for a short period of time and travel about one metre. If droplets come into contact with the mucous membranes or surface of the eye of a person, they can cause infection.

4.3 Indirect contact

4.3.1 Surfaces can become contaminated from the droplets of an infected person passed on usually through hand contact.

4.4 Aerosol generating procedures

4.4.1 The following procedures are considered **likely** to generate aerosols capable of transmitting respiratory pathogens.

- Intubation, extubation , open suctioning and related procedures
- Cardiopulmonary resuscitation
- Induction of sputum
- Ventilation of the Patient
- Continuous Positive Airway Pressure Ventilation (CPAP)

4.4.2 Procedures which are **NOT** considered to generate aerosol that would pose a significant infectious risk:

- Administration of pressurised humidified Oxygen
- Administration of medication via a nebulsier

- **Assume cases to be infectious until all symptoms of acute influenza have gone. This is usually between 5 and 7 days although this may vary according to age**

5. Management of the patient with an Influenza-like illness (ILI)

5.1 Treatment of an ILI is mostly conservative, and consists of relieving symptoms while awaiting recovery.

5.2 However, in some individuals flu can progress from a mild illness into one in which there is an increase in shortness of breath, chest pain and confusion suggestive of pneumonia which may require, antibiotic or antiviral therapy. Patients presenting with these symptoms will need immediate assessment and treatment and may require transfer to an acute service.

5.3 Clinical Observations

5.3.1 The following clinical observations should be recorded to ensure any change in the patient's condition is detected and acted upon immediately and appropriately.

- **During acute illness Blood pressure, Temperature, Pulse, Respirations (TPR) and Oxygen saturation levels should be recorded as a minimum of 4 hourly and more frequently according to the patient's clinical condition**
- Fluid balance should be recorded to ensure the patient remains hydrated
- All observations should be recorded in accordance with the Trust's policy NTW(C)29 - Trust Standard for the Assessment and Management of Physical Health, practice guidance note (PGN) AMPH-PGN-03 - National Early Warning Score (NEWS)

5.4 Antiviral Therapy /Post exposure prophylaxis

5.4.1 Public Health England (PHE) recommends the use of antiviral medication for both treatment and prophylaxis of Influenza. Evidence suggests that the use of antiviral medication reduces the risk of death in patients who are hospitalised with influenza.

5.4.2 **The treatment and prophylaxis of influenza: PH guidance** is produced annually and should always be consulted prior to initiating antiviral therapy. This can be sourced through the following link:

www.gov.uk/government/organisations/public-health-england

5.4.3 Antiviral therapy is recommended as a possible treatment for patients with an ILI when **ALL** of the following apply:

- The person is in a clinical risk group: The current list includes people with:

1. Chronic respiratory disease
2. Chronic heart disease
3. Chronic renal disease
4. Chronic liver disease
5. Chronic neurological disease
6. Immunosuppression
7. Diabetes
8. Pregnant women

For further information about clinical risk groups **see Appendix 2**

- The patient has an ILI and can start antiviral treatment within 48 hours of the first sign of symptoms
- The patient has been exposed to an ILI and is able to begin prophylaxis within the recommended time from exposure
- Flu virus is circulating and it is likely that an ILI has been caused by the flu virus

5.4.4 Antiviral therapy must be prescribed by the clinician. Pharmacy should be contacted to discuss the use of appropriate anti viral treatment.

- Oseltamivir PO is the first line treatment recommended
- Zanamivir is the second line treatment and should only be considered where there is a poor clinical response to oseltamivir or if there is poor gastrointestinal absorption
- **Note:** Previous seasonal flu immunisation does not preclude post exposure prophylaxis
- If test results for Influenza are negative, anti-viral medication if prescribed should be discontinued

5.5 Post Exposure Prophylaxis

5.5.1 Exposure is defined as close contact with a person in the same household or residential setting, who has had recent symptoms of influenza. This would apply to a ward environment where patients mix freely.

5.6 Antivirals are recommended for the post exposure prophylaxis of influenza if the following apply

1. Influenza virus is circulating
2. The person is at risk of complicated influenza including pregnant women
3. The person is severely immunosuppressed
4. The person has been exposed to an influenza like illness and is able to begin prophylaxis within 48 hours of contact with the index case(Oseltamivir) or 36 hours (Zanamivir)
5. The person has not been effectively protected by vaccination that is :
   a) They have not been vaccinated since the previous flu season
   b) Vaccination is contraindicated
   c) Has been vaccinated but the strain is not well matched

- **For Dosage and schedule, refer to:**

- Pharmacy department
- PHE guidance (2014-15). **The treatment and prophylaxis of influenza**

- British National Formulary (BNF**)** 2015. Accessed through the following link:-

https://www.medicinescomplete.com/mc/bnf/current/PHP3889-influenza.htm

6 Vaccination

6.1 Flu viruses circulating in the community are monitored continually by the World Health Organisation. Virus strains selected for inclusion in the vaccines are those expected to be in wide circulation in the following winter.

6.2 All patients who are in the clinical risk groups should be offered seasonal flu vaccination, when it is available. **See Appendix 2** for clinical risk groups.

6.3 Reference to the Trust's Policy, NTW(C)05 - Consent to Examination or Treatment, should be made where capacity to consent to vaccination is impaired.

6.4 All NTW employees are strongly encouraged to be vaccinated yearly against the common circulating strains of influenza. The seasonal flu vaccination campaign commences in September and is available through various initiatives. Vaccination protects patients, staff, visitors and relatives and remains the key priority in the winter months to reduce the numbers of influenza related illness.

7 Infection Prevention and Control

7.1 Isolation/Cohort Nursing

7.1.1 Reference should be made to IPC-PGN-08 - Isolation of Infected patients in Hospital

- Key principles to be followed, wherever possible, include the following
  - Advice should always be sought from the IPC team
  - Symptomatic patients should be segregated from non-symptomatic patients as soon as possible
- Patients with suspected or confirmed Influenza should be nursed in a single room
- Communal areas should not be shared between influenza and non-influenza patients This is referred to as **cohort nursing**
- If this is not possible guidance suggests maintaining a distance of a minimum of 1 metre between patients bed or sitting space may be effective, although this may be difficult to implement
- Staff should work either with symptomatic or asymptomatic patient/s (but not both) and this arrangement should be continued for the duration of the infectious period
- If several patients are affected, consideration should be given to cohort areas

7.2 Personal Protective Equipment (PPE)

7.2.1 Reference should be made to IPC-PGN-02.1 - Standard Precautions

- Health Care Workers (HCW) in contact with a suspected or confirmed patient with Influenza should wear the following PPE
    - Disposable gloves
    - Plastic apron
    - Eye protection where there is a risk of splashes to the eyes. A risk assessment should be undertaken to identify the suitability of wearing face protection
    - Single use fluid repellent surgical face masks. A risk assessment in conjunction with the IPC team should be undertaken to determine the practicality of this within a mental health environment. Refer to 8.11 Respiratory Guidance
    - More stringent infection control is needed during aerosol generating procedures (AGPs) Refer to Respiratory Guidance
- **Appendix 3** demonstrates the correct procedure for putting on and removing PPE

7.3 Respiratory Guidance

7.3.1 Droplet precautions are designed to minimise the transmission of respiratory organisms from one person to another. Coughing and sneezing produces a "respiratory spray" consisting of large particles (droplets) and small particles (aerosol).

7.3.2 All staff, patients, relatives and visitors are encouraged to follow respiratory hygiene and cough etiquette:-

- Use disposable single use tissues and cover nose and mouth when coughing or/and sneezing (dispose as clinical waste immediately)
- Wash hands after contact with secretions

7.3.3 Respiratory Masks

7.3.3.1 Fluid repellent surgical masks

- In principle evidence suggests that fluid repellent surgical masks may provide some protection against large droplet, splashes and contact transmission. This supports the mask being worn by the infected person.
    - Where possible the infected patient should be encouraged to wear a surgical face mask. **However compliance and the wellbeing of the patient should be the deciding factor**. This should be discussed with the IPC Matron and documented in the patients care plan
    - Health care workers who may be in close or frequent contact with symptomatic patients (within 1 metre) are recommended to wear a fluid repellent surgical mask. **Consideration should be given to the suitability of wearing masks and should be discussed with the IPC Matron**
    - All masks should be disposed as clinical waste
- **Refer to Appendix 4 Guidance for healthcare staff on personal protective equipment**

7.3.4 FFP3 Respirator (Filtering Facepiece)

7.3.4.1 The following procedures are considered to generate aerosols of respiratory secretions from infected patients, and therefore may present a significant infectious risk.

- Open suctioning, intubation ,extubation
- Cardiopulmonary resuscitation
- Induction of sputum
- Non-invasive ventilation
- Continuous Positive Airway Pressure Ventilation (CPAP)

7.3.4.2 Nebulisation of medication is **not** considered to represent a significant infection risk

- FFP3 respirator (EN 149:2001) should be worn in conjunction with fluid repellent gown, gloves, full face and eye protection during the above procedures. See Appendix 4
- It is a legal requirement that Fit testing should be carried out prior to wearing an FFP3 respirator to ensure the effectiveness of the mask
- Aerosol generating procedures should only be performed when essential and should be in well ventilated single rooms, with the doors closed
- Environmental cleaning should be undertaken of the patients room as soon as it is possible without the use of a respirator after the procedure

7.4 Environmental decontamination

7.4.1 Due to factors that determine the survival time of the influenza virus it is impossible to provide a definitive survival time of the virus.

7.4.2 Evidence suggests that this may be from a few hours to several days. In general data supports longer virus survival on hard (non-porous) surfaces than on softer (porous) items.

- Hard surfaces should be cleaned using a chlorine based product (Chlorclean) in the patients room and ward area. Particular focus should be upon frequently touched surfaces e.g. hand rails, door handles, toilet areas, tables etc
- Patients should be encouraged to practice good respiratory hygiene and be provided with disposable tissues to cover the mouth and nose when coughing. Tissues should be disposed as clinical waste
- Hands should be washed with soap and water after coughing and sneezing and after using a disposable tissue
- Patients rooms should be kept clean and clutter free
- Cleaning of Infected patients rooms should be prioritised
- A terminal clean should be undertaken of affected areas in discussion with the IPC Team. **Reference should be made to the Terminal Clean , Method Statement 49**

7.5 Hand Hygiene

7.5.1 Reference should be made to IPC-PGN-04.1 - Hand Hygiene and the use of gloves.

7.5.2 **Hand Hygiene is the most effective way to prevent transmission by direct contact.**

7.5.3 All hand hygiene dispensers should have adequate supplies of soap and paper towels and should be accessible to staff, patients and visitors.

7.5.4 **Hand hygiene must be performed in the following instances:**

- On entering and leaving a clinical area
- Immediately before/after each direct patient contact/care
- After any activity or contact that potentially results in hands becoming contaminated
- Before/after handling food
- Before/after wearing gloves

- Before preparing/dispensing medications
- Between different procedures for the same patient (i.e. mouth care, catheter care)
- After visiting the toilet
- When hands feel unclean or visibility dirty

An effective hand washing and drying technique plays a key role in standard infection control practice to prevent cross infection

Hand washing technique

7.5.5 Use of Alcohol Hand Rub

- Alcohol hand rub is available to complement hand hygiene practice and can be used to decontaminate socially clean hands. It is **not** an alternative to hand washing and should only be used when hands are visibly clean and free from dirt, soil and organic material

7.6 Transfer of Patients to Acute settings

7.6.1 Reference should be made to IPC-PGN-17 - Transfer of patients:

- Communication with the IPC team **prior** to transfer of a suspected /confirmed case of influenza is paramount
- A risk assessment should be undertaken to consider:

a) The risk to the patient during transfer

b) The risk to others

c) Precautions required during transfer

7.7 Visitors to the clinical area

7.7.1 Where a clinical area is affected by a known or suspected outbreak of an influenza-like illness, visitors should be advised to protect themselves and other carers/relatives.

7.7.2 All visitors should be:-

- Discouraged from visiting symptomatic patients where this is feasible and does not adversely affect the social/emotional needs of the patient
- Made aware of the risks when visiting patients with an ILI
- Strongly advised to clean their hands thoroughly with soap and water or hand sanitiser before and after visiting patients
- Avoid physical contact with the symptomatic patient and be at least at a one metre distance from possible cases
- Recommended to wear a single use fluid repellent face mask when in contact with the patient. However this may not be possible and discussion with the IPC team is essential to discuss risk factors

7.7.3 Furthermore, symptomatic visitors should not visit the ward until they are no longer symptomatic. The Infection Prevention and Control Team will provide guidance and support.

7.7.4 **Appendix 4 - Respiratory Outbreak Notification.** This notice should be clearly displayed on the entrance to the ward to notify all visitors if there is an outbreak of an ILI.

7.8 Health Care workers

7.8.1 Infected health care workers can act as a source of transmission to both patients and staff who may be at increased risk of complications associated with Influenza. A health care worker can spread influenza even though they are not symptomatic themselves.

- All health care workers should be encouraged to have a seasonal flu vaccine

- A risk assessment of all staff working with patient s with an ILI should be undertaken to identify those health care workers who themselves are in clinical risk groups. Alternative working arrangements should be considered to ensure protection of vulnerable individuals .This includes pregnant members of staff

- Health care workers who become infected should be advised to stay off work until symptom free, usually 5-7 days

- The use of bank and agency staff should be avoided during outbreaks of an ILI. However where this is unavoidable, staff should be block booked and should not work in other areas

7.9 Waste Management:

7.9.1 Reference should be made to NTW(O)24 - Waste Management Policy.

- All waste generated by a suspected or confirmed case of influenza should be disposed as hazardous clinical waste

- PPE must be worn when handling clinical waste

7.10 Laundry Management

7.10.1 Reference should be made to IPC-PGN-12 - Management of Used Hospital Laundry.

- All linen generated from a patient with suspected or confirmed influenza should be treated as infected linen. This includes personal clothing

- PPE should be worn when handling linen

- Linen should be placed in a sealed seam soluble bag and placed within a red linen bag, fastened securely and labelled with ward/department of origin

- All linen i.e. towels and bed linen should not be laundered in the ward washing machine, but sent to the central laundry

- Personal clothing if washed in the ward washing machine should be placed in a red bag and laundered after all other personal items belonging to other patients have been laundered

7.11 Patient equipment

7.11.1 Reference should be made to IPC-PGN-10 - Disinfection and Decontamination practice guidance note.

- Any item of equipment used in providing patient care must be considered to be contaminated and has the potential to spread infection:
    - Wherever possible single use disposable medical devices must be used
    - Single use items must be disposed of appropriately as clinical waste.
    - Reusable equipment must be cleaned and decontaminated after patient use
    - Equipment should as far as possible be allocated to the affected patient/s and remain in place until asymptomatic

7.12 Environmental Cleaning

7.12.1 Environmental cleaning/disinfection is intended to remove or significantly reduce the numbers of the virus on contaminated surfaces, therefore breaking the chain of infection.

- Cleaning must precede the process of disinfection , organic matter (patients secretions, excretions) must be removed for the disinfection process to be effective
- The cleaning process should avoid producing an aerosol
- A solution of Chlorclean, 1:000ppm chlorine should be made up to the manufactures guidance and used until further advice from the IPC team.
- Horizontal surfaces, particularly in patient bedrooms, frequently touched surfaces and immediately around the patient's bed should be cleaned regularly
- To facilitate effective cleaning the patients bedroom should be kept as clutter free as possible
- Disposable, single use cloths should be used at all times for cleaning purposes and disposed as clinical waste
- Vacuuming of carpeted areas in the affected areas should be suspended until closure of the outbreak

7.13 Crockery and Cutlery

- Should be washed in a dishwasher

NOTE: In the event of a Pandemic Influenza, this guidance will be superseded by the Pandemic Influenza Plan

8 References

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- Department of Health (2011). *Routes of Transmission of the Influenza Virus . Scientific Evidence Base Review*

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- Health and Safety Executive (2008*). Evaluating the protection afforded by surgical masks against influenza bioaerosols*

- Health Protection Agency (2012) *Infection control precautions to minimise transmission of Respiratory Tract Infections (RTIs) in the healthcare setting*

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- National Institute for Health and Care Excellence (2009*). Amantadine oseltamivir, amantadine and zanamivir for the treatment of influenza. NICE technology appraisal guidance 168*

- Public Health England (2014-2015). *The treatment and prophylaxis of influenza*:

- Public Health England. *A guide to the FFP3 respirator*

- World Health Organisation (2007). *Infection prevention and control of epidemic-and pandemic prone acute respiratory diseases in health care.*

Appendix 1

Influenza Specimen Collection

A Nasopharyngeal swab is the optimal upper respiratory tract specimen collection method for influenza testing. However this method of collection may not be suitable for some patients and a risk assessment should always be performed prior to taking the swab. **Alternatively, a nasal and throat swab can provide adequate viral yield**.

Nasopharyngeal Swabs

Materials:

- 1 sterile viral swab
- Bio-Tube or transit box
- Gloves
- Disposable Apron
- Fluid repellent face mask
- Tissue for patient
- Eye protection

Procedure:

1. Ensure the patient is sitting comfortably
2. Ensure all PPE is worn by the person taking the swab
3. Tilt the patients head back to 70 degrees
4. Insert swab into the patients nostril straight back (not upwards) along the floor of the nasal passage until reaching the posterior wall of the nasopharynx. The distance from the nose to the ear gives an estimate of the distance the swab should be inserted.
5. Rotate the swab gently and leave in place for several seconds
6. Immediately place the swab into the transport container and send to the lab.
7. Ensure the specimen is labelled with the patient details and that the cap on the tube is tightly secured.
8. All specimens should be refrigerated (between 2-8 degrees Celsius) if not collected immediately for transport to the laboratory.

Please note: the patient may show signs of discomfort or may gag during collection. It is important to reassure the patient at all times

Nasal and Throat Swabs

Materials:

- 2 sterile viral swab
- Bio-tube or transit box
- Disposable Gloves
- Disposable apron
- Fluid repellent face mask
- Tissue for patient

Procedure

1. Ensure the patient is sitting comfortably

2. Ensure all PPE is worn by the person taking the swab.

3. Tilt patients head back to 70 degrees

4. While gently rotating the swab , insert swab less than one inch into the nostril (until resistance is met)

5. Rotate the swab several times against the nasal wall and repeat in the other nostril with the same swab.

6. Immediately place the swab into the transport container and send to the lab.

7. Ensure the specimen is labelled with the patient details and that the cap on the tube is tightly secured

Throat Swab

1. Take a second swab, insert into the mouth, and swab the posterior pharynx and tonsillar areas, avoiding the tongue.

2. Immediately place the swab into the transport container and send to the lab.

3. Ensure the specimen is labelled with the patient details and that the cap on the tube is tightly secured.

4. All specimens should be refrigerated (between 2-8 degrees Celsius) if not collected immediately for transport to the laboratory

Appendix 2

Clinical risk groups

Clinical risk category	Examples (this list is not exhaustive and decisions should be based on clinical judgement)
All patients aged 65 years and over	Defined as those
Chronic respiratory disease	Asthma that requires continuous or repeated use of inhaled or systemic steroids or with previous exacerbations requiring hospital admission. Chronic obstructive pulmonary disease (COPD) including chronic bronchitis and emphysema; bronchiectasis, cystic fibrosis, interstitial lung fibrosis, pneumoconiosis and bronchopulmonary dysplasia (BPD). Children who have previously been admitted to hospital for lower respiratory tract disease. see precautions section on live attenuated influenza vaccine
Chronic heart disease	Congenital heart disease, hypertension with cardiac complications, chronic heart failure, individuals requiring regular medication and/or follow-up for ischaemic heart disease.
Chronic kidney disease	Chronic kidney disease at stage 3, 4 or 5, chronic kidney failure, nephrotic syndrome, kidney transplantation
Chronic liver disease	Cirrhosis, biliary atresia, chronic hepatitis
Chronic neurological disease	Stroke, transient ischaemic attack (TIA). Conditions in which respiratory function may be compromised due to neurological disease (e.g. polio syndrome sufferers). Clinicians should offer immunisation, based on individual assessment, to clinically vulnerable individuals including those with cerebral palsy, learning difficulties, multiple sclerosis and related or similar conditions; or hereditary and degenerative disease of the nervous system or muscles; or severe neurological disability
Diabetes	Type 1 diabetes, type 2 diabetes requiring insulin or oral hypoglycaemic drugs, diet controlled diabetes.
Immunosuppression (see contraindications	Immunosuppression due to disease or

and precautions section on live attenuated influenza vaccine)	treatment, including patients undergoing chemotherapy leading to immunosuppression, bone marrow transplant, HIV infection at all stages, multiple myeloma or genetic disorders affecting the immune system (e.g. IRAK-4, NEMO, complement deficiency) Individuals treated with or likely to be treated with systemic steroids for more than a month at a dose equivalent to prednisolone at 20mg or more per day (any age), or for children under 20kg, a dose of 1mg or more per kg per day. It is difficult to define at what level of immunosuppression a patient could be considered to be at a greater risk of the serious consequences of influenza and should be offered influenza vaccination. This decision is best made on an individual basis and left to the patient's clinician. Some immunocompromised patients may have a suboptimal immunological response to the vaccine.
Asplenia or dysfunction of the spleen	This also includes conditions such as homozygous sickle cell disease and coeliac syndrome that may lead to splenic dysfunction.
Pregnant women	Pregnant women at any stage of pregnancy (first, second or third trimesters).
Morbid obesity (class III obesity)	Adults with a Body Mass index ≥40kg/m²

Appendix 3

Public Health England

NHS England

Prepare & Protect

Guidance for healthcare staff on personal protective equipment

PUTTING ON personal protective equipment (PPE)

The type of PPE used will vary based on the type of exposure anticipated, and not all items of PPE will be required.

The order for putting on PPE is: APRON, SURGICAL MASK, EYE PROTECTION and GLOVES.

APRON (OR GOWN)
- Pull over head and fasten at back of waist

SURGICAL MASK (OR RESPIRATOR)
- Secure ties or elastic bands at middle of head and neck
- Fit flexible band to nose bridge
- Fit snug to face and below chin
- Fit check respirator

EYE PROTECTION (GOGGLES/FACE SHIELD)
- Place over face and eyes and adjust to fit

GLOVES
- Extend to cover wrist

REMOVING personal protective equipment (PPE)

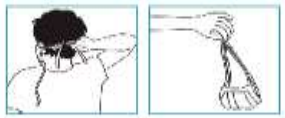
PPE should be removed in an order that minimises the potential for cross-contamination.

The order for removing PPE is GLOVES, APRON, EYE PROTECTION and SURGICAL MASK.

GLOVES
- Grasp the outside of the glove with the opposite gloved hand; peel off
- Hold the removed glove in the gloved hand
- Slide the fingers of the ungloved hand under the remaining glove at the wrist
- Peel the second glove off over the first glove
- Discard in a lined waste bin

APRON (OR GOWN)
- Unfasten or break ties
- Pull apron away from neck and shoulders lifting over head, touching inside only
- Fold or roll into a bundle
- Discard in a lined waste bin

EYE PROTECTION (GOGGLES/ FACE SHIELD)
- Handle only by the headband or the sides
- Discard in a lined waste bin



SURGICAL MASK (OR RESPIRATOR)
- Unfasten the ties – first the bottom, then the top
- Pull away from the face without touching front of mask/respirator
- Discard in a lined waste bin

USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF INFECTION
- Keep hands away from face
- Limit surfaces touched in the patient environment
- Change gloves if they became torn or heavily contaminated
- Regularly perform hand hygiene
- Always clean hands after removing gloves

PERFORM HAND HYGIENE IMMEDIATELY AFTER REMOVING ALL PPE

All PPE should be removed before leaving the area and disposed of as healthcare waste.

FOR MORE INFORMATION CONTACT:

HSE

These images are for illustrative purposes only. Always follow the manufacturer's instructions.

Northumberland, Tyne and Wear NHS
NHS Foundation Trust

INFECTION CONTROL DEPARTMENT

NOTICE TO VISITORS

We are currently experiencing an outbreak of respiratory illness that is also affecting many members of the community.

In order to reduce the potential spread of this infection we request that you:

- **Do not visit if you have similar symptoms**
- **Thoroughly wash your hands when entering and exiting the department**
- **Keep visiting to a minimum**
- **Do not allow symptomatic children to visit**
- **Follow any instructions provided by the ward/department staff.**

Thank you for your co-operation

Appendix 5

Public Health England

NHS England

When to use a **surgical face mask** or **FFP3** respirator

When caring for patients with **suspected or confirmed infectious respiratory virus**, all healthcare workers need to – prior to any patient interaction – assess the infectious risk posed to themselves and wear the appropriate personal protective equipment (PPE) to minimise that risk.

When to use a surgical face mask

In cohorted area (but no patient contact)	Close patient contact (within one metre)
For example: Cleaning the room, equipment cleaning, discharge patient room cleaning, etc	**For example:** Providing patient care, direct home care visit, diagnostic imaging, phlebotomy services, physiotherapy, etc
PPE to be worn	**PPE to be worn**
• Surgical face mask (along with other designated PPE for cleaning)	• Surgical face mask • Apron • Gloves • Eye protection (if risk of contamination of eyes by splashes or droplets)

When to use an FFP3 respirator

- **Carrying out potentially infectious aerosol generating procedures**

For example:
bronchoscopy, endotracheal intubation, tracheostomy procedures, cardiopulmonary resuscitation, diagnostic sputum induction:

- **Where a patient is known/suspected to have an infection spread via the aerosol route**
- **When caring for patients known/suspected to be infected with a newly identified infectious respiratory virus**

PPE to be worn
- FFP3 respirator
- Gown
- Gloves
- Eye protection

- Fit testing should be carried out by a properly trained competent fit tester.
- Other guidance is available on bacterial infections and pulmonary tuberculosis

These images are for illustrative purposes only. Always follow the manufacturer's instructions.

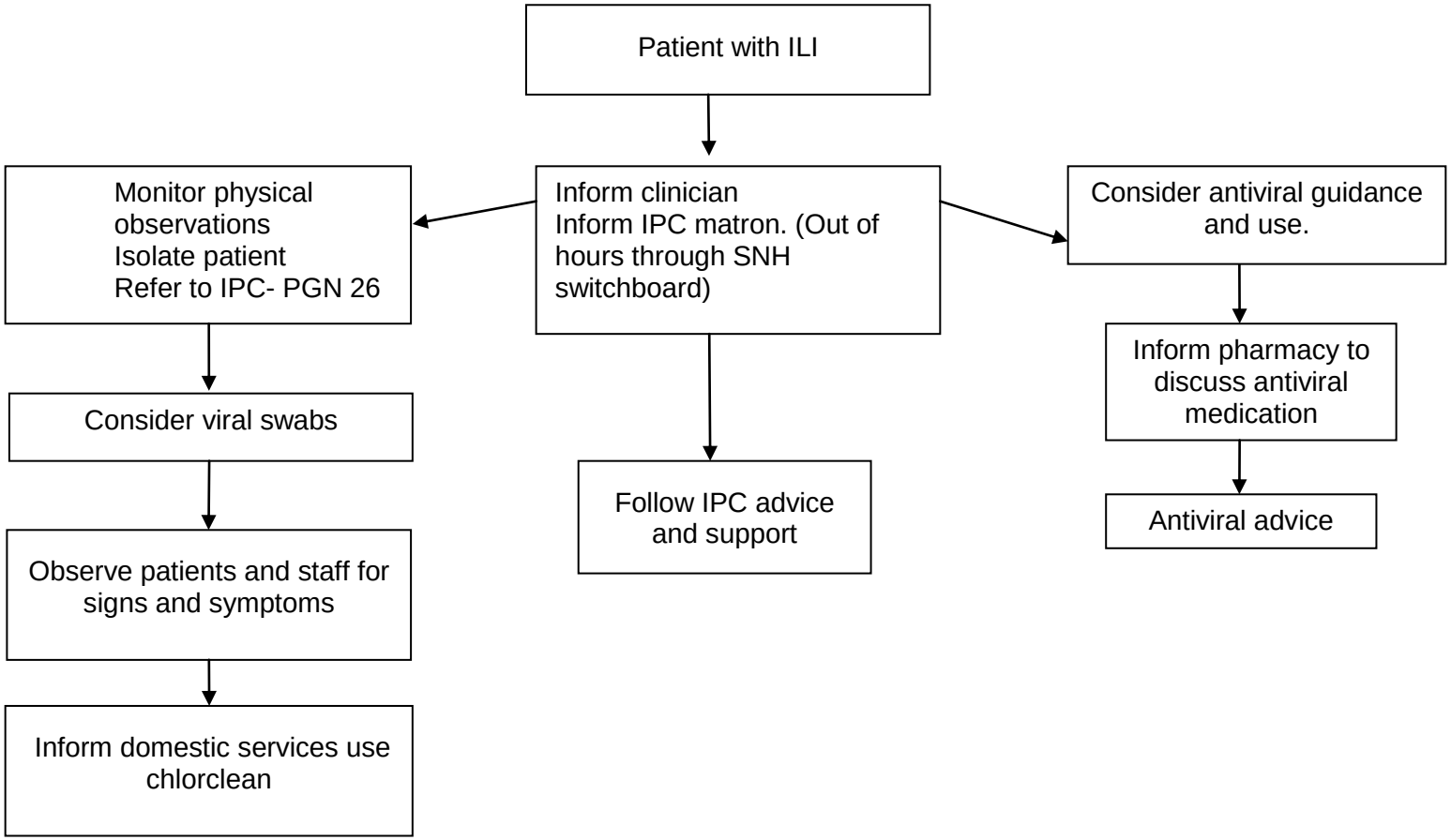
Remember

- PPE should be put on and removed in an order that minimises the potential for cross-contamination.
- The order for PPE removal is gloves, apron or gown, eye protection, surgical face mask or FFP3 respirator.
- Hand hygiene must always be performed following removal of PPE.
- Healthcare workers who have had influenza vaccination, or confirmed influenza infection, are still advised to use the above infection control precautions.

HSE

Appendix 6

Flow Chart for the Management of Patient/s with an ILI



Appendix 7

LINE LIST for PATIENTS with symptoms during outbreak of a Respiratory illness

Name of Ward/Team		Locality		Date	

Please record details of patients/residents who have had symptoms below and update regularly (use separate patient sheet for any staff who are unwell)

Forename	Surname	Sex	Date of Birth	Symptoms – please tick ✓						When did symptoms start?		Last date of any symptoms	Specimen taken	Type of specimen	Result of sample
				Sudden onset fever	Headache	Muscle ache	Dry cough	Sore throat	Other	Date	Time				

LINE LIST for Staff with symptoms during outbreak of a Respiratory illness

Name of Ward/Team		Locality		Date	

Please record details of staff who have had symptoms below and update regularly (use separate patient sheet for any patients who are unwell)

Forename	Surname	Sex	Date of Birth	Symptoms – please tick ✓						When did symptoms start?		Last date of any symptoms	Specimen taken	Type of specimen	Result of sample
				Sudden onset fever	Headache	Muscle ache	Dry cough	Sore throat	Other	Date	Time				