GP guide – Influenza outbreak in an adult care home

1.0 CASE SCENARIO

Flu season has started. It is three o'clock on a Friday afternoon and you receive a call from a Care Home (Residential and/or Nursing). They have been in contact with the Community Infection Control Team (CICT) who has liaised with Public Health England (PHE) and swabbing plus treatment/prophylaxis has been recommended in line with the guidance. Swabbing will be undertaken by either the nurses at the home, or district nurses (if resident care).

"Can you see and arrange for antiviral treatment for our three residents who appear to have flu-like illness and antiviral prophylaxis for those identified as contacts?"

Antivirals (AVs) may only be prescribed by General Practitioners in England when the Chief Medical Officer has announced this that influenza is circulating in the community.

How might you respond?

1. **No treatment**
2. **AV flu prophylaxis**
3. **AV flu treatment**
4. **Look for and treat another cause of flu-like symptoms**

It is for individual clinicians to decide how to respond, but it should be appropriate as for any sick patient in a nursing and residential home.

2.0 DECISION MAKING/ASSESSMENT

ALWAYS CONSIDER FLU AS A POSSIBLE DIAGNOSIS IN A CARE HOME SETTING DURING FLU SEASON

a. PHE case definition[1]

The current PHE influenza-like illness (ILI) definition for use in care homes is as follows:

Oral or tympanic temperature ≥37.8C

AND one of the following:

acute onset of at least one of the following respiratory symptoms: cough (with or without sputum), hoarseness, nasal discharge or congestion, shortness of breath, sore throat, wheezing, sneezing

OR
an acute deterioration in physical or mental ability without other known cause

[1] Public Health England. PHE guidelines on the management of outbreaks of influenza-like illness (ILI) in care homes. Version 4.0. October 2018.
https://www.gov.uk/government/publications/acute-respiratory-disease-managing-outbreaks-in-care-homes

Author: Kenny Li; Deputy Clinical Director MHCC, Yasmin Ahmed Little; Consultant in Health Protection
Reviewed: Heather Bury; Locality Lead Pharmacist; MHCC, Matthieu Pegorie; Consultant in Health Protection
Approved APC:
Approved GMMMG:
Version 2: Updated Jan 2019

It is acknowledged that older persons may not always develop a fever with influenza; if an influenza outbreak is suspected due to respiratory symptoms or acute deterioration in physical or mental ability without fever, prompt laboratory testing is recommended to confirm the diagnosis.

Alternatively, a laboratory detection of influenza virus would fulfil the definition of a case of influenza. A nursing home should be able to provide a set of observations, RR, BP, temperature and check urine for symptomatic patients.

b. When to suspect an influenza outbreak

PHE guidance defines an outbreak as two or more cases which meet the clinical case definition of ILI (or alternatively two or more cases of laboratory confirmed influenza) arising within the same 48-hour period with an epidemiological link to the care home (for example all cases are in the same unit/area of the care home).

c. Summary of key actions for GPs who suspect an influenza outbreak in a care home

Take appropriate respiratory samples and send them to the Public Health laboratory at Manchester Royal Infirmary (appendix B)
Consider AV treatment and/or prophylaxis where indicated, as per NICE[2] and PHE[3] guidelines.
Notify the Greater Manchester Public Health England Health Protection team on **0344 225 0562 Option 3** and **Community Infection Control Team** [insert local contact details]

3.0 ANTIVIRALS (AVs)

a. When to consider using AVs

AV treatment should be commenced when flu is suspected in a care home resident (and appropriate respiratory samples taken).

AV prophylaxis should be commenced when care home residents have been in contact with a person with ILI (post-exposure prophylaxis) and may be given in the absence of known contact when it is known that influenza is circulating in the community (seasonal prophylaxis)[2].

This can be commenced based on clinical suspicion, there is no need to await laboratory results - if these come back as negative for seasonal influenza, treatment/prophylaxis can be discontinued.

b. Who should receive AVs

Consider AV treatment and/or prophylaxis where indicated, as per NICE[2] and PHE[3] guidelines, for:

- treatment of uncomplicated influenza among specific at-risk groups
- treatment of complicated influenza regardless of underlying individual risk factors.

As detailed in the NICE guidance[2], AVs can be considered for post exposure prophylaxis (PEP) among care home residents in at-risk groups during influenza outbreaks in care homes, *regardless of their vaccination status*. If a recommendation for PEP is made by PHE, it is important that this is targeted as far as possible to those who are most likely to have been exposed to cases of influenza.

[2] https://www.nice.org.uk/Guidance/ta168
[3] https://www.gov.uk/government/publications/influenza-treatment-and-prophylaxis-using-anti-viral-agents

Within larger care homes, this may be possible by identifying specific units within the home where residents share specific common spaces. However, it is recognised that in some care homes, it may not be possible to identify such a subgroup due to small sizes or uncertain social mixing patterns.

c. What AVs to use

Oseltamivir (taken orally) is used as first line for treatment. Both oseltamivir and zanamivir can be used for prophylaxis, and the use of one over the other will depend on the health status of the resident, the time lapse from diagnosis of active case and the characteristics of the dominant circulating strains. Where the dominant circulating strain has a higher risk of oseltamivir resistance (such as with A(H1N1) in the 2018/19 flu season), zanamivir is the anti-viral of choice in severely immunosuppressed patients for both treatment and prophylaxis. Details about the choice of antiviral, their dosage and mode of administration can be found in the PHE guidance on use of antiviral agents[3].

If there are concerns about high attack rates or high case fatality rates, prophylaxis could be considered more than 48 hours after contact with a case or for longer durations following a risk assessment of the situation and consultation with PHE; however it should be noted that such use is currently unlicensed.

d. Access to AVs – local AV stocks

[INSERT DETAILS OF LOCAL AV ACCESS ARRANGEMENTS, IN AND OUT OF HOURS, IN AND OUT OF FLU SEASON]

4.0 TESTING (SEE APPENDIX A FOR MORE DETAILS)

Obtaining clinical samples **(e.g. sputum, nose and throat swabs)** rapidly (e.g. same or next working day), greatly aids public health investigation and timely implementation of control measures to prevent rapid transmission (e.g. 48hr window for AV effectiveness).

In the absence of confirmed diagnosis, there is a danger of either over-prescription of AVs to care home residents and their associated side-effects, or under-prescription/delayed-prescription of AVs increasing the risk of rapid transmission of infection.

5.0 OTHER CONSIDERATIONS

a. Prescribing AVs for patients with renal impairment

Updated PHE guidance reflects advice from the British Geriatric Society as follows, it remains essential to give the first dose as soon as possible:

- Individuals with documented renal function in the past 6 months indicating no renal impairment can be prescribed the standard AV dose
- Individuals with known renal impairment, where the prescriber has access to renal function results, can be prescribed an adjusted dose as per guidance
- In an emergency outbreak response, where there is *no information about the presence/absence of renal impairment* (or routine renal function results from the past 6 months are unavailable) there is a high likelihood of abnormal renal function in care home residents, so **a reduced daily dose of oseltamivir is recommended for all care home residents** (i.e. the dose appropriate for CrCL of 31-60mL/min).

It is also possible to consider the use of Zanamivir as an alternative AV that can be used in this age group without adjusting the dose for potential renal impairment.

b. Consent

Where possible, it would be helpful to document consent status for care home residents prior to the flu season, where rapid prescribing decisions for AVs may need to be made. The BMA[4] and GMC[5] offer advice and guidance on consent.

c. Prescribing AVs in season

In-hours

During the in-season period the need for assessing and prescribing of AVs is part of the GMS contract. If antivirals are required, they can be prescribed on a FP10 and supplied through any community pharmacy. The prescription must:

- Be issued in line with the Selected List Scheme (SLS) criteria (see appendix C)
- Must contain the SLS designation

Out of hours

On rare occasions there will be a need for AV prescribing for care home residents out-of-hours (weekday evenings, weekends). Ensure oseltamivir is prescribed for either treatment or prophylaxis within the licensed 48 hour window, or zanamivir is prescribed for prophylaxis within the licensed 36 hour window.

[insert details of local CCG arrangements for out-of-hours prescribing]

d. Prescribing AVs out-of-season

GPs and primary care prescribers cannot legally prescribe AVs using FP10s outside the flu season (usually between Dec/Jan to April/May as confirmed by the CMO letter).

Out of season a Patient Specific Direction (PSD) can be used and the AVs supplied from only the CCG designated pharmacy. The following constitutes a PSD:

- An FP10 marked as 'convenient stationery'
- A private prescription which will be issued by the designated pharmacy at no charge
- A proforma from NHSE is provided in appendix D and can be used for more than one patient with the same strength and dose.

Retain a copy of the FP10 in the care home residents' inpatient files at their care home.
[insert details of CCG-commissioned arrangements for AV prescribing outside of flu season]

e. Evidence for the effectiveness of AVs in treating flu

PHE have published guidance for healthcare professionals, summarising the existing evidence-base (including results from the Cochrane review) and confirming PHE recommendations for the early use of AVs for patients with proven or suspected flu who are in high risk groups or who are considerably unwell (even if not in a high risk group)[6]. There is good evidence that AVs can reduce the risk of death in patients hospitalised with flu. Early AV treatment (i.e. within 48 hours of development of illness) has been shown to half the risk of death compared with no AV treatment. The PHE guidance states that it is essential physicians treating severely unwell patients in any setting are not deterred from prescribing what may be lifesaving drugs as a result of confusion over efficacy of AVs in this situation.

[5] https://www.bma.org.uk/advice/employment/ethics/mental-capacity/mental-capacity-toolkit
[6] http://www.gmc-uk.org/guidance/ethical_guidance/consent_guidance_index.asp
[7] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/370673/AV_full_guidance.pdf

6.0 FURTHER INFORMATION

Document name: PHE guidance on use of antiviral agents for the treatment and prophylaxis of influenza (2018 to 2019). Version 9.0 Public Health England. October 2018	PHE_guidance_antivirals_influenza_201
Website access: https://www.gov.uk/government/publications/influenza-treatment-and-prophylaxis-using-anti-viral-agents	
Document name: The use of antivirals for the treatment and prophylaxis of influenza. PHE summary of current guidance for healthcare professionals.	PHE Healthcare professionals summar
Website access: https://www.gov.uk/government/publications/influenza-treatment-and-prophylaxis-using-anti-viral-agents	
Document name: PHE guidelines on the management of outbreaks of influenza-like illness (ILI) in care homes, Version 4.0. October 2018	Influenza-like_illness_in_care_home_201
Website access: https://www.gov.uk/government/publications/acute-respiratory-disease-managing-outbreaks-in-care-homes	
Document name: NICE : Amantadine, oseltamivir and zanamivir for the treatment of influenza (TA168) (Feb 2009)	NICE guidance
Website access: https://www.nice.org.uk/guidance/ta168/resources/amantadine-oseltamivir-and-zanamivir-for-the-treatment-of-influenza-82598381928133	
Document name: Tamiflu® SPC	
Website access: https://www.medicines.org.uk/emc/medicine/20294	
Document name: Relenza® SPC	
Website access: https://www.medicines.org.uk/emc/medicine/2608	

7.0 APPENDICES

(Please refer to latest guidance at https://www.gov.uk/government/publications/influenza-treatment-and-prophylaxis-using-anti-viral-agents)

Appendix A: ANTIVIRAL PRESCRIBING SUMMARY

First-line = Oseltamivir (Tamiflu®) orally
Second-line = Zanamivir (Relenza®) inhalation [e.g. when index case or dominant circulating strain has a higher risk of resistance to oseltamivir (Tamiflu®)].

Dose for adults (>13 years **AND** CrCl / eGFR > 60mL/min)

	Weight	Prophylaxis	Treatment		If CrCl / eGFR = 30-60mL/min (for CrCl / eGFR <30mL/min see SPCs)
Oseltamivir (Tamiflu®)	>40kg	75mg daily x 10 days	75mg bd x 5 days		Prophylactic dose = 30mg daily x 10days. Treatment dose = 30mg bd x 5days.
	23-40kg	60mg daily x 10 days	60mg bd x 5 days		For virology medical advice please contact CMFT advice line 0161 276 8788 Option 2.
	Swallowing difficulties (or via PEG / NG tube) Capsule contents can be dispersed in liquid NOTE: **Bitter taste** so for oral administration sugary liquid or honey recommended. (Licensed suspension may be preferred but high in sorbitol.)				
Zanamivir (Relenza®)		10mg daily (2 x 5mg by inhalation)	10mg bd (2 x 5mg by inhalation)		No dose modification is required.

PEP = Post-exposure Prophylaxis

NICE = oseltamivir (Tamiflu®) and Zanamivir (Relenza®) ***may*** be used for prophylaxis of persons in at risk groups following exposure to a person in the same household or residential care setting with influenza-like illness when influenza is circulating in the community.

Appendix B: Lab testing arrangements

Public Health England

Protecting and improving the nation's health

Public Health Laboratory
Manchester
Department of Virology
Manchester Royal Infirmary
Manchester
M13 9WL

T +44 (0)1612768853
F +44 (0)161 276 5744
www.gov.uk/phe

Dear Colleagues,

Re: Influenza diagnostic service for 2018/19

SUMMARY

- The enhanced Influenza testing service for the 2018/19 season will begin on **November the 26th 2018.**
- All nose and throat swabs sent the Virology Department at PHL Manchester under an ILOG number will be processed by rapid testing.
- Results for samples received in the laboratory between 08.00 and 16.00 (08.00 to 15.00 at weekends) will be reported within 4 hours; results for samples received after these times will be available the next morning.
- Please refer to the instructions below for further details on requesting, sending samples and obtaining results.
- Testing kits can be obtained by contacting the office manager (clare.ward@phe.gov.uk)
- Please refer to the accompanying document 'Instruction sheet: collection of samples for investigation of respiratory outbreaks' for detailed instructions on using the testing kits.

REQUESTS

- Please contact the laboratory clinical team to notify sending of samples for rapid testing and to obtain an ILOG number (01612768854 Option 1). Complete one request form for each sample and include the ILOG number.

SAMPLES

- For rapid testing, send a combined nose and throat swab in Virology Transport Medium (VTM). **Do not send charcoal swabs or e-swabs as they cannot be processed**
- For patients that are also producing sputum please collect a sample in one of the yellow-topped containers provided. **Please note that this cannot be processed for rapid testing and so a swab in VTM should also be sent.**
- For all patients, when possible, send urine for Legionella and pneumococcal antigen testing in a Sarstedt urine monovette ® tube. Do not delay sending swab / sputum whilst awaiting urine.

TRANSPORT

- In order to reduce the turn-around time for results samples may be delivered directly to PHL Manchester using transport arranged by the sender. Samples may be sent 24 hours a day, 7 days a week. Please arrange for samples to be delivered to:

Central Specimen Reception
Clinical Sciences Centre
Manchester Royal Infirmary
Oxford Road
M13 9WL

- The self-addressed envelope can be used to send samples directly to PHL Manchester via the postal service.

RESULTS DURING ENHANCED INFLUENZA TESTING SERVICE

- Results will be available within four hours of sample receipt if received in the laboratory before 16.00 (mon-fri) and 15.00 at the weekend.
- A dedicated mobile phone number (07973 870099) will be available between 08:00 and 18:00 (mon-fri) and 8.00 and 17.00 at the weekend for chasing urgent results.
- Additionally, positive results will be telephoned to the requesting location during these hours: 08.00-17.00 Monday to Friday and 08.00 to 12.30 on Saturday and Sunday).

Author: Kenny Li; Deputy Clinical Director MHCC, Yasmin Ahmed Little; Consultant in Health Protection
Reviewed: Heather Bury; Locality Lead Pharmacist; MHCC, Matthieu Pegorie; Consultant in Health Protection
Approved APC:
Approved GMMMG:
Version 2: Updated Jan 2019

ADDITIONAL CONTACT DETAILS

- For further information during normal working hours (Mon-Fri 08.30-17.00 and Saturday 08.30-12.30) please contact the laboratory (0161 2768854 Option 1).
- Outside of normal working hours the duty consultant virologist can be contacted for urgent clinical and operational advice via the hospital switchboard (01612761234).

Yours sincerely

Dr N Machin

Consultant Virologist
nicholas.machin@mft.nhs.uk / nicholas.machin@phe.gov.uk

Author: Kenny Li; Deputy Clinical Director MHCC, Yasmin Ahmed Little; Consultant in Health Protection
Reviewed: Heather Bury; Locality Lead Pharmacist; MHCC, Matthieu Pegorie; Consultant in Health Protection
Approved APC:
Approved GMMMG:
Version 2: Updated Jan 2019

Appendix C

Drug		Patient	Purpose
Oseltamivir (Tamiflu)	(1)	*A patient who is aged 1 year or over and who is at clinical risk or a patient who is pregnant or aged 65 years or over or who is aged under 65 years and is at risk of developing medical complications from influenza, where -	Treatment of influenza
	(a)	the Department of Health has notified general medical practitioners that the influenza virus is circulating in the community;	
	(b)	the patient has an influenza-like illness; and	
	(c)	the patient can start therapy within 48 hours of the onset of symptoms.	
	(1A)	Any patient suffering from influenza during an outbreak of pandemic influenza (influenza caused by a new virus subtype that has an increased and sustained transmission during a global outbreak of influenza), where the drug is ordered under arrangements for the distribution of the drug free of charge which are approved by the Secretary of State or are part of an antiviral distribution service provided by the Commissioning Board, Public Health England or a Local Authority.	
	(2)	*A patient who is aged 1 year or over and who is at clinical risk or a patient who is pregnant or aged 65 years or over, where -	Prophylaxis of influenza
[illegible]		[illegible]	[illegible]
	(a)	the Department of Health has notified general medical practitioners that the influenza virus is circulating in the community;	
	(b)	the patient has been exposed to an influenza-like illness through being in close contact with someone with whom he lives who is or has been suffering from an influenza-like illness;	
	(c)	the patient is not effectively protected by vaccination against influenza because- (i) he has not been vaccinated because vaccination is contraindicated; (ii) he has not been vaccinated since the previous influenza season;(iii) he has been vaccinated but it has yet to take effect; or (iv) he has been vaccinated but the vaccine is not well matched to the strain of influenza circulating in the locality in which the patient resides or is or has been present;	
	(d)	the patient lives in a residential care establishment and another resident or member of staff of the establishment has an influenza-like illness; and	
	(e)	the patient can start prophylaxis within 48 hours of exposure to an influenza-like illness.	
	(2A)	Any patient at risk from influenza during an outbreak of pandemic influenza (influenza caused by a new virus subtype that has an increased and sustained transmission during a global outbreak of influenza), where the drug is ordered under arrangements for the distribution of the drug free of charge which are approved by the Secretary of State or are part of an antiviral distribution service provided by the Commissioning Board, Public Health England or a Local Authority.	
Zanamivir (Relenza)	(1)	*A patient who is aged 5 years or over and who is at clinical risk or a patient who is pregnant or aged 65 years or over or who is aged under 65 years and is at risk of developing medical complications from influenza, where -	Treatment of influenza
	(a)	the Department of Health has notified general medical practitioners that the influenza virus is circulating in the community;	
	(b)	the patient has an influenza-like illness; and	
	(c)	In the case of a patient - (i) who has attained the age of 5 years but not the age of 13 years, that patient can start therapy within 36 hours of the onset of symptoms; (ii) who is aged 13 years or over, that patient can start therapy within 48 hours of the onset of symptoms.	
	(2)	Any patient at risk of or suffering from influenza during an outbreak of pandemic influenza (influenza caused by a new virus subtype that has an increased and sustained transmission during a global outbreak of influenza), where the drug is ordered under arrangements for the distribution of the drug free of charge which are approved by the Secretary of State or are part of an antiviral distribution service provided by the Commissioning Board, Public Health England or a Local Authority.	Prophylaxis or treatment of influenza

Author: Kenny Li; Deputy Clinical Director MHCC, Yasmin Ahmed Little; Consultant in Health Protection
Reviewed: Heather Bury; Locality Lead Pharmacist; MHCC, Matthieu Pegorie; Consultant in Health Protection
Approved APC:
Approved GMMMG:
Version 2: Updated Jan 2019

Appendix D

Patient Specific Direction (PSD)

FOR URGENT ATTENTION <Prescriber Address>
< Pharmacy Address>

Pharmacy email Address <insert date>

Please arrange for the supply of:

<Insert influenza antiviral name>

For the following patients:

<Patient name> <DOB> <Dosage> <Duration>

These medicines are required as part of the urgent management of an influenza outbreak at:

<Insert care home name and address>

As declared by the PHE Centre Health Protection Team:

<Insert PHE Centre details>

This PSD is signed by
<Insert prescriber name>
<Registration number>
Contact details

Author: Kenny Li; Deputy Clinical Director MHCC, Yasmin Ahmed Little; Consultant in Health Protection
Reviewed: Heather Bury; Locality Lead Pharmacist; MHCC, Matthieu Pegorie; Consultant in Health Protection
Approved APC:
Approved GMMMG:
Version 2: Updated Jan 2019