



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 definition¹

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

Oral or tympanic temperature $\geq 37.8^{\circ}\text{C}$

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. November 2016.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/573143/ILI_in_care_homes_291116.pdf

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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 may 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 NICE² and PHE³ 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 guidance², 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. Within larger care homes, this may be possible by identifying specific units within the home where

² <https://www.nice.org.uk/Guidance/ta168>

³ <https://www.gov.uk/government/publications/influenza-treatment-and-prophylaxis-using-anti-viral-agents>

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. Details about the choice of antiviral, their dosage and mode of administration can be found in the PHE guidance on use of antiviral agents³.

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

PHE guidelines on dosing in renal impairment and renal failure is intended specifically for consideration when patients have an existing history of chronic kidney disease (CKD4 eGFR ≤60ml/min) and renal failure results have been previously documented for the purpose of managing CKD. As with other groups, it is essential to give the first dose as soon as possible.

UKMI advise if oseltamivir has to be prescribed, to start treatment quickly but make arrangements for renal function to be checked and then adjust the dose accordingly.⁴

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 BMA⁴ and GMC⁵ offer advice and guidance on consent and capacity.

- If a patient has capacity, only they can consent to their care, they can elect to defer the decision to someone else; they can also decline to make a decision.

⁴ Personalcommunications.UKMI 11th September 2017

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

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- If a patient lacks capacity, they may still retain some capacity for some decisions and this may include flu jabs/treatment- This should be determined during Advanced Care Planning as an overarching assessment and a patient's expressed wish would guide best interests were they not to have capacity at a later stage [either temporarily or permanently] but would also be required again at the time of injection as consent is decision-specific.
- If a patient does not have capacity, only a doctor can legally make healthcare decisions on their behalf. Best interests is what the patient would have chosen themselves or what is 'best' for them as determined by the healthcare team. Best practice says one should talk to next of kin about what is going to happen to their loved one and ask them what their loved one would/might have chosen were they still to have capacity
 - Best interests are decided by considering:
 - The most clinically effective; least invasive and least restrictive treatment option
 - What the patient would have wanted if they had capacity (a discussion with the next of kin is appropriate at this point; however it must be considered that the discussion is about the patient; not the option that the relative themselves would prefer)
- To be binding, consent should be contemporaneous and event specific. To gain a view for future use is helpful as this will inform a defence for Best Interests rather than having utility as Consent months or years down the line. i.e. a patient may express the wish to have a flu jab at a date in the future but that is not the same as consenting on the actual day of the jab and, if capacity is retained, consent can be withdrawn at any point. If capacity is lost; previous consent is a guide for the clinician in their decision making specific to the treatment in question.

c. Prescribing AVs in season

In-hours

During the in-season period the need for assessing and prescribing of AVs for treatment 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.

⁷ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/370673/AV_full_guidance.pdf

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6.0 FURTHER INFORMATION

| | |
|---|--|
| <p>Document name: PHE guidance on use of antiviral agents for the treatment and prophylaxis of seasonal influenza (Version 7.0, October 2016)</p> |  PHE AV guidance |
| <p>Website access: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/580509/PHE_guidance_antivirals_influenza_2016_2017.pdf</p> | |
| <p>Document name: The use of antivirals for the treatment and prophylaxis of influenza. PHE summary of current guidance for healthcare professionals.</p> |  PHE Healthcare professionals summar |
| <p>Website access: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/370673/AV_full_guidance.pdf</p> | |
| <p>Document name: PHE guidelines on the management of outbreaks of influenza-like illness (ILI) in care homes</p> |  ILI in care homes |
| <p>Website access: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/573143/ILI_in_care_homes_291116.pdf</p> | |
| <p>Document name: Health Protection Scotland: Guidance on use of antiviral agents for the treatment and prophylaxis of seasonal influenza 2016-17</p> |  HP Scotland AV guidance |
| <p>Website access: http://www.hps.scot.nhs.uk/resourcedocument.aspx?resourceid=192</p> | |
| <p>Document name: NICE : Amantadine, oseltamivir and zanamivir for the treatment of influenza (TA168) (Feb 2009)</p> |  NICE guidance |
| <p>Website access: https://www.nice.org.uk/guidance/ta168/resources/amantadine-oseltamivir-and-zanamivir-for-the-treatment-of-influenza-82598381928133</p> | |
| <p>Document name: Tamiflu® SPC</p> | |
| <p>Website access: https://www.medicines.org.uk/emc/medicine/20294</p> | |
| <p>Document name: Relenza® SPC</p> | |
| <p>Website access: https://www.medicines.org.uk/emc/medicine/2608</p> | |

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



Directorate of Laboratory Medicine

Manchester Royal Infirmary
Oxford Road
Manchester
M13 9WL

Tel: 0161 276 8853
Fax: 0161 276
5744

Memorandum (October 2016)

Testing patients for respiratory viruses, including 'flu'

Virology at the Public Health Laboratory in Manchester will be offering a 7 day receipt and PCR testing service for respiratory viruses from October 2016 until March 2017

1. Samples

- If patients are producing sputum, please collect a sample in sputum pot.
- For patients who are not producing sputum:
 - Please send nose and throat swabs, combined in a single vial of virus transport medium (VTM). Please use one flocked swab to swab the nose and another one to swab the throat and then place both in a single vial of VTM.
 - If virus transport medium is not available, specimens can be taken using dry cotton or Dacron-tipped swabs but they should not be sent in charcoal transport medium.

At weekends, samples should be submitted to the laboratory to arrive before 10:30am on Saturday and before 10.00am on Sunday.

Please contact the Laboratory on 0161 276 6786 if you need supplying with specimen collection kits

2. Requests

Please complete one request form for each sample:

- Patient details: first name and surname; date of birth; NHS Number if possible.
- Sample collection date
- Location/address for the reports
- Ilog field with the number allocated to your outbreak. Please phone 0161 276 8854 to obtain an Ilog number from the Outbreak Co-ordinator. If they are unavailable, please contact 0161 276 5688 or 0161 276 5699

3. Results

Results will generally be available within 24 to 36 hours of sample receipt and all positive results will be telephoned

4. Contact details

On Saturdays and Sundays, laboratory staff can be contacted on 07973 87 00 99. For clinical advice or urgent results out of hours, including weekends, please contact the duty consultant virologist via 0161 276 1234.

Please contact the laboratory (0161 276 8853/4277) if you have any questions.

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 |
| | (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 |

Appendix D

Patient Specific Direction (PSD)

FOR URGENT ATTENTION
< Pharmacy Address >

<Prescriber 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

Appendix E

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Antiviral (AVs) recommendations for residents

Background principles

- PHE make recommendation (below), the prescription is responsibility of prescribing clinician, who needs to assess patients individually and consider clinical need and risk/benefit balance of antivirals. PHE and NICE guidance available (see below) + clinical prescribing advice available from PHE virologist:
 - NICE:
 - Treatment guidance: <https://www.nice.org.uk/Guidance/TA168>
 - PEP guidance: <https://www.nice.org.uk/Guidance/TA158>
 - Clinical knowledge summary: <https://cks.nice.org.uk/influenza-seasonal>
 - PHE:
 - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/580509/PHE_guidance_antivirals_influenza_2016_2017.pdf(part of collection: <https://www.gov.uk/government/collections/seasonal-influenza-guidance-data-and-analysis>)
- Cases = residents with symptoms of seasonal influenza (*NOTE: where an outbreak is lab confirmed as flu, any new cases with symptoms of seasonal influenza over next 5 days are very likely to be cases of flu: they should be reviewed by their GP who should consider prescribing AV treatment –rather than AV PEP*)
- Contacts = asymptomatic residents who have had contact (<15 minute face to face or >15 min in same room) with infectious cases
- Infectivity: cases are generally considered to be infectious whilst symptomatic, although some people can shed the virus for longer, particularly if immunosuppressed
- Investigations: Once one or more cases have been lab confirmed as flu, no need for further samples for Public Health purposes but clinicians to continue to investigate patients (pts) according to clinical need. Therefore specimens would be managed by NHS if for clinical purposes rather than public health investigation.
- Selective use of AVs: we need to be as selective as possible in defining those who are eligible for AVs as they can have nasty side effects. Eligibility criteria are clearly outlined in guidance. For care home outbreaks, we can assume that all residents fall into an eligible risk group due to their age and high likelihood of co-morbidities. In particular, important to narrow down the list of contacts as far as practical for the situation; it is acknowledged that this is challenging in some settings.

Symptomatic Residents

- Symptomatic residents that have been tested for flu and have a positive lab result for flu:
 - Onset of symptoms <48 hours: AV treatment recommended
 - Onset of symptoms >48 hours: Not eligible for AV treatment as per AV license, BUT if clinician considers that condition warrants it, AV treatment can be prescribed, off licence. No need for Post exposure prophylaxis (PEP) as should have immunity.
- Symptomatic residents that have been tested for flu and have a negative lab result for flu: prescribe PEP if have had contact with an infectious flu case in the last 48 hours
- Symptomatic residents that have not been tested for flu:

The guiding principle here is to assess the likelihood of symptoms being caused by flu, in the absence of flu lab results. If there is an alternative diagnosis, based on clinical assessment or positive lab result for another respiratory pathogen, likelihood of flu obviously decreased. Vaccine efficacy amongst >65s is not optimal so vaccination status should be used with caution when assessing likelihood of flu in this age group.

These can be:

- Current cases (=had clinically compatible symptoms at the time the first laboratory confirmation of flu in the care home outbreak and still have on-going symptoms)
Or
- New cases (= develop clinically compatible symptoms after the first laboratory confirmation of flu in the care home outbreak)
- Both the above are likely to be flu cases BUT clinical assessment recommended:
 - If flu is the lead diagnosis, manage as per confirmed case management (consider Rx for them and PEP for their eligible contacts). Both Treatment for them and PEP for their contacts can then be discontinued if case tested and results come back negative for flu.
 - If there is another lead diagnosis, manage as a potential contact (prescribe PEP if have had contact with an infectious flu case in the last 48 hours)

Asymptomatic residents

- Any contacts who have had contact with infectious cases in the last 48 hours: PEP recommended
- Ideally, we need to be selective (i.e. limit pool for eligible contacts to a sub-unit on the CH e.g. a specific floor/wing), but pragmatic approach often needed: depending on IPC risk assessment (=how good are the IPC measures in the care home, including adherence to isolation and exclusion recommendations), assumption often needs to be that any asymptomatic resident in the affected area would likely count as a contact, including those contacts that don't leave their rooms (rationale: cannot guarantee 100% IPC compliance and therefore exposure likely/possible)
- Previously symptomatic residents who have now recovered, and who were not tested for flu: likely to have been flu cases BUT precautionary approach recommended- assume that they are susceptible (i.e. have not had flu) and prescribe PEP if have had contact with an infectious flu case in the last 48 hours

Clinical risk groups:

- Chronic nerve, liver, kidney, liver, lung and heart disease
- Diabetes
- Reduced immune system
- Age over 65 years
- Pregnancy (including up to two weeks after the birth)
- Morbid obesity (BMI ≥ 40)