



Public Health
England

Protecting and improving the nation's health

Investigation and management of outbreaks of suspected acute viral respiratory infection in schools

Guidance for Health Protection Teams

Version 2.0 March 2021

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Published March 2021

PHE publications
gateway number: GW-1746

PHE supports the UN
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Summary of changes from 2019 influenza-like illness (ILI) guidance

Section	Change	Author / version
2 (and throughout)	Changes to approach as a result of COVID-19 and influenza co-circulation this season	
2 (Box 1)	Extension to annual seasonal influenza vaccination programme	
4	Definitions – cases, outbreaks and clusters of ARI and COVID-19	
5	Epidemiology of COVID-19 added	
6.2	Approach to laboratory investigation in an ARI outbreak, to cover the possibilities of COVID-19, influenza and other pathogens	
6.2	Influenza testing – change in wording to “recent symptomatic cases” rather than “up to 5 symptomatic cases” (see comment below for background)	
6.3	Approach to ARI outbreak management depending on swab results	
7	Approach to outbreak control, to cover the possibilities of COVID-19, influenza and other pathogens	
7.8	Temporary school closure should be OCT decision	
7.9	Recording and surveillance requirements - Replacement of the ARI outbreak reporting form which used to be required to be sent to NIS at the beginning and end of each outbreak, to one select survey form to be completed at the end of the outbreak	
Appendix 1	Residential educational settings: COVID-19 considerations added	
Appendix 2	SEND educational settings: COVID-19 considerations added	
Appendix 3	Flowchart added	

1. Executive summary

This document provides guidance for local Health Protection Teams (HPTs) about assessing and managing outbreaks of suspected acute viral respiratory infection (ARI) in schools. Every autumn and winter, seasonal influenza viruses and other respiratory viruses like respiratory syncytial virus (RSV) cause school outbreaks. Since early 2020, SARS-CoV-2, the novel coronavirus that causes COVID-19 disease, has been in circulation within the UK, and has led to cases and outbreaks linked to schools. All these viruses can present with similar symptoms and so it is essential that suspected ARI outbreaks in schools are investigated and managed appropriately.

During the current COVID-19 pandemic, ARI outbreaks in schools should be managed following appropriate COVID-19 guidance and infection prevention and control (IPC) protocols until COVID-19 is excluded or an alternative causal agent is identified.

Central to the approach to this setting, is the communication of key preparedness messages to schools, including awareness of arrangements for reporting of outbreaks to local HPTs, exclusion advice for unwell children (which will vary depending on the respiratory diagnosis), as well as the national childhood influenza immunisation programme.

The key intervention to limit the transmission of flu in schools is to ensure successful roll out of the childhood influenza immunisation programme which has continued to expand this year, partly in response to COVID-19 (see 2. Background). In influenza outbreak situations, antivirals may also be considered for unvaccinated exposed children in clinical risk groups, in line with national guidance, such as that published by NICE and PHE.

Key guidance relating to specific situations which should be read in parallel with this guidance includes¹⁻⁷:

- PHE national SOPs for public health management of COVID-19 outbreaks in educational settings
- COVID-19 [guidance for schools](#), including [guidance for full opening](#) and [safe working in education, childcare and children's social care](#)
- PHE COVID-19 [guidance on cleaning in non-healthcare settings](#)
- PHE [guidance on health protection in schools and other childcare facilities](#) (for example for exclusion advice; NB does not include COVID-19)
- PHE [guidance](#) on use of antiviral agents for the treatment and prophylaxis of seasonal influenza

2. Background

Seasonal influenza and other acute respiratory infections may transmit rapidly between children of school age, prompting the occurrence of localised outbreaks within schools. It is important to note that localised influenza outbreaks in school settings may precede circulation of seasonal influenza in the wider population. During this winter season, co-circulation of COVID-19 (novel coronavirus) disease in addition to influenza is possible. Other common viruses causing acute respiratory infection in children include respiratory syncytial virus (RSV), rhinovirus and parainfluenza.

Symptoms of acute viral respiratory infections (see definitions page 9) in children are difficult to distinguish between causative agents, so outbreaks of acute respiratory infection in schools and educational settings should be investigated initially to ascertain if SARS-CoV-2 is the causative organism. COVID-19 guidance should be followed until the causative organism is shown not to be SARS-CoV-2 by laboratory testing.

For a subset of more complex ARI outbreaks, such as: i) those involving children in clinical risk groups in special schools, or ii) when there is a high attack rate, iii) multiple cohorts are affected, iv) there are reports of hospitalisations or deaths; HPTs should pursue rapid multiplex testing for a range of respiratory viruses (for example flu A, flu B, RSV). This will provide useful information for the management of these outbreaks but will also provide important intelligence for surveillance purposes.

Influenza vaccination is particularly important with COVID-19 in circulation, in order to reduce infections and complications of influenza in people vulnerable both to influenza and to COVID-19.

The [national flu immunisation programme letter](#)⁸ includes detailed information on plans for the 2020 to 2021 season. The childhood influenza vaccination programme which has undergone a phased introduction since 2013, is now an integral part of the national seasonal influenza vaccination programme. This season the Live Attenuated Influenza Vaccine (LAIV) will be offered to all primary school-aged children and children in year 7 in secondary school. In addition, all 2- and 3-year-old children are also eligible to access flu vaccine through their GP practice.

As in previous influenza seasons, seasonal influenza vaccination is also available for individuals aged 6 months and older in clinical risk groups, as specified in [the Green Book](#)⁹ and the [national flu immunisation programme letter](#)⁸.

HPTs should be aware that when they receive a report of acute respiratory infection in school-age children during the influenza season, some of those in the affected school may have already received seasonal influenza vaccination.

Although this document is focused on schools, the outbreak definitions, approaches to risk assessment, laboratory investigation as well as response measures, will be similarly applicable to settings such as nurseries.

Separate considerations will apply for residential educational settings and special schools; see Appendix I and II.

3. Preparedness measures

Preparedness for COVID-19 disease should include enhanced infection and prevention control measures including hand hygiene, social distancing (including the use of 'bubbles' to keep groups of children and staff separate), and considerations to ensure safety at work in these settings. Full details are available in the [COVID-19 guidance for schools on full opening](#)⁴.

Achieving high uptake of the seasonal childhood influenza vaccination programme in schools is a key component of influenza preparedness. The aim is to reduce the public health impact of flu by:

- providing indirect protection by interrupting flu transmission from children and averting cases of severe flu and flu-related deaths in older adults and people in clinical risk groups
- providing direct protection to children, helping to prevent a large number of cases of flu in children

[New research by PHE](#) suggests that co-infection of both flu and COVID-19 is associated with a greater risk of more severe illness and death. Therefore, during the 2020 to 2021 winter season, influenza vaccination will be even more important in reducing related morbidity and mortality.

Many schools have existing arrangements to identify acute respiratory infection among pupils, such as monitoring of related absences. Schools should be aware of the most up to date information on local mechanisms for seeking advice in relation to observed increases of acute respiratory infection, including risk assessment of potential outbreak situations. Response arrangements will continue to be reviewed during the COVID-19 pandemic, however in most localities this will involve the local [Health Protection Team](#).

Schools may also be aware of individual pupils who are in clinical risk groups (as part of the schools' health and welfare arrangements), and this information will be important for the rapid provision of information to families of these children during an outbreak.

It is useful for schools to be signposted to [guidance on health protection in schools and other childcare facilities](#), including exclusion advice, prior to the beginning of the influenza season⁷. Note this guidance does not currently include COVID-19 considerations.

4. Definitions

The term acute respiratory infection (ARI) includes presentations both of influenza-like illness (ILI) and of COVID-19.

See Appendix I and II for additional considerations in residential educational settings and special schools.

4.1 Case definition for influenza-like illness (ILI)

Influenza-like illness (ILI) is defined as:

- acute onset of fever AND cough (in the absence of other diagnoses).
- If measured, fever is defined as ≥ 37.8 °C

It is acknowledged that influenza may vary in presentation in children, such as without fever or with diarrhoea, etc. These would not meet the ILI definition above, therefore if there is a suspicion of influenza in such children with these other clinical presentations, they would only be regarded as a case with a positive laboratory testing result for influenza.

4.2 Case definition for confirmed influenza

A confirmed case of influenza is an individual with laboratory detection of influenza virus from a respiratory sample (usually a nose or throat swab).

4.3 Case definition for clinically suspected COVID-19

A clinically suspected case of COVID-19 in a community setting is **defined as** any of¹⁰:

- fever
- new, continuous cough
- anosmia (loss of, or change in, normal sense of smell (anosmia) or taste (ageusia))

Schools and clinicians should be alert to the possibility of atypical presentations of COVID-19 in patients who are immunocompromised.

4.4 Case definition for confirmed COVID-19

A test-confirmed case of COVID-19 in an individual with laboratory test positive for SARS-CoV-2 virus from a respiratory sample (usually a nose or throat swab), with or without symptoms.

4.5 Definition for Acute Respiratory Infection (ARI) outbreak

A suspected ARI outbreak in a non-residential school or educational setting is defined as:

- the occurrence of 2 or more cases of ARI symptoms (including ILI or COVID-19 symptoms) within a 14-day period
- with an epidemiological link to the school or educational setting
- without laboratory confirmation

Epidemiological evidence of transmission within the school includes both cases having attended the school on at least one of the 7 days before onset in the absence of a known, alternative source of infection (for example a household member reported to have influenza-like illness).

The epidemiological likelihood of a respiratory outbreak being due to influenza is increased if influenza has been declared to be circulating in the general community and particularly if there is evidence of local influenza transmission.

In terms of Infection Prevention and Control and immediate control measures (for example isolation of cases and contacts, and COVID-19 testing), schools with a suspected ARI outbreak should manage it as a COVID-19 outbreak until indicated otherwise by laboratory testing.

4.6 Definition for confirmed COVID-19 clusters and outbreaks

A COVID-19 cluster in a school or educational setting (non-residential) is **defined as**¹¹ 2 or more test-confirmed cases of COVID-19 among individuals associated with a specific non-residential setting, with illness onset dates within a 14-day period (in the absence of detailed information about the type of contact between the cases).

A COVID-19 outbreak in a school or educational setting (non-residential) is **defined as**¹¹ 2 or more test-confirmed cases of COVID-19 among individuals associated with a specific non-residential setting, with illness onset dates within 14 days, and one of:

- identified direct exposure between at least 2 of the test-confirmed cases in that setting (for example under one metre face to face, or spending more than 15 minutes within 2 metres) during the infectious period of one of the cases
- when there is no sustained local community transmission – absence of an alternative source of infection outside the setting for the initially identified cases

4.7 Definition for confirmed influenza outbreak

Two or more laboratory confirmed cases of influenza among individuals (students or staff) with an epidemiological link to the educational setting, arising within a single 7-day period.

4.8 End of cluster or outbreak

The end of an ARI outbreak where neither COVID-19 nor influenza have been confirmed by laboratory testing is defined as a single 14-day period following symptom onset of the last outbreak case, during which there are no new cases of ARI within the same school group.

The end of a test-confirmed influenza outbreak is defined as a single 7-day period following symptom onset of the last outbreak case, during which there are no new cases of ILI or confirmed influenza cases within the same school group.

The end of a test-confirmed COVID-19 cluster in a school or educational setting (non-residential) is **defined as**¹¹ no test-confirmed cases with illness onset dates in the last 14 days.

The end of a test-confirmed COVID-19 outbreak in a school or educational setting (non-residential) is **defined as**¹¹ no test-confirmed COVID-19 cases with illness onset dates in the last 28 days in that setting.

Note: the threshold for the end of a COVID-19 outbreak is higher than the end of a cluster.

5. Epidemiological parameters

5.1 Influenza

Incubation period: The median incubation period of influenza is 2 days (range 1 to 4 days) [ref from CH guidance].

Infectious period: For influenza the period of infectiousness (that is communicability) starts with the onset of ILI symptoms and lasts for the duration of symptoms.

5.2 COVID-19

Incubation period: The median incubation period of COVID-19 is 5 days (range 1 to 14 days).

Infectious period: The infectious period is from 2 days prior to symptom onset (or 2 days prior to positive test if asymptomatic) and extend for up to 10 days post onset of symptoms (or positive test date if asymptomatic).

5.3 Other common respiratory viruses

These include:

- respiratory syncytial virus (RSV)
- rhinovirus
- adenovirus
- parainfluenza
- human metapneumovirus

All may have similar symptoms to other ARI.

Incubation periods vary between respiratory viruses, but are usually between 12 hours and 5 days, extending up to 8 days for RSV and parainfluenza.

6. Investigation of outbreaks

6.1 Risk assessment

When an ARI outbreak is initially notified to an HPT, the listed in Box 1 below will be useful to inform a risk assessment. This will help the HPT conduct an assessment of the likelihood of influenza and COVID-19, the severity and extent of the outbreak, and guide control measures. Equivalent local checklists may be deployed. This information should be captured on the HPZone outbreak or situation record.

Box 1 – Information to be collected in the event of an ARI outbreak

Information about the school or educational setting

- details of the contact person at the school, including their job title and direct contact number
- size of the school (number of staff and number of pupils), and the size of cohorts affected (for example classes, 'bubbles' or year groups) if the illness is limited to specific cohorts
- type of school: day pupils only, boarders or both (see **Appendix I**)
- whether the school is for pupils with special educational or disability needs (SEND) or whether there are SEND pupils within the mainstream school (see **Appendix II**)
- dates of childhood influenza vaccination and coverage rates in the school students and staff, if relevant and readily available

Characteristics of the outbreak

- nature of the symptoms
- number of cases among students and staff affected, both clinically suspected and laboratory confirmed (including specific laboratory results such as COVID-19 PCR and/or influenza subtype, if known)
- distribution of cases over time, including onset date of the first and most recent cases, and according to class/bubble/year group
- number of hospitalisations, ICU admissions and deaths associated with the outbreak
- information on whether there are any children or staff in clinical risk groups in the school, if known

Control measures

- current infection prevention and control measures
- actions taken in response to suspected outbreak
- communications with the school community to date

6.2 Laboratory investigation

The first priority is to ascertain if SARS-CoV-2 is the causative agent and to access testing as per the COVID-19 guidance.

Sampling that is undertaken to identify the causative organism for an ARI outbreak in a school (other than COVID-19) should be informed by national and local surveillance data.

Routine virological (non-COVID-19) investigation of school ARI outbreaks is not essential for every outbreak but should be considered in:

- outbreaks involving significant numbers of children in clinical risk groups, such as in some special schools
- complex outbreaks, such as those involving high attack rates, multiple cohorts, prolonged outbreak duration, reported hospitalisations, critical care admissions or deaths among school children or teachers

Laboratory confirmation of influenza in particular is most useful in the inter-seasonal period and early in the influenza season, when national surveillance schemes have not yet confirmed that influenza is circulating widely in the community. During these time periods, other respiratory viruses may be as likely as seasonal influenza to cause ILI presentations and so there is a role for laboratory confirmation to inform the risk assessment and subsequent public health advice for individuals in risk groups who may benefit from antivirals.

COVID-19 testing

All suspected cases of ARI and COVID-19 should be tested promptly for SARS-CoV-2, according to national guidance and local procedures.

COVID-19 testing should be undertaken as per local arrangements, including the use of home test kits.

Testing for other respiratory viruses

When complex ARI school outbreaks arise, or the initial COVID-19 tests are negative, the HPT should consider testing symptomatic individuals for a broad range of respiratory viruses including influenza A, influenza B and RSV.

When swabbing is indicated HPTs should work with local system partners to arrange multiplex testing through local swabbing arrangements, including NHS and PHE

laboratories as appropriate to their local context. This will provide useful information for the management of these outbreaks but will also provide important intelligence for surveillance purposes.

Sampling should be undertaken as close as possible to illness onset (and no more than 7 days after onset). Those aged 11 years or less should be swabbed by a parent or guardian, while self-swabbing can be considered for children and young people older than 12. When considering multiplex testing for non-COVID viruses, it is particularly useful if swabs can be returned via a central point to the diagnostic laboratory (as per local arrangements) so that transport of samples can be co-ordinated and the timeline for reporting of the overall results can be estimated.

Further advice on testing during outbreaks can be sought from the local public health laboratory in the first instance. Local arrangements should be made with the regional laboratory for rapid turnaround of testing in response to outbreak investigation.

Expert epidemiological advice can be sought from the national flu team, for example if wider testing is being considered to better understand the epidemiology of the outbreak.

6.3 Consideration of swabbing results

During the winter of 2020 to 2021, there may be simultaneous circulation of SARS-CoV-2 and influenza within a single ARI outbreak.

If any SARS-CoV-2 results are positive, manage as a COVID-19 outbreak^{1,2}.

If seasonal influenza is detected on testing, manage according to this ARI outbreak guidance.

If neither SARS-CoV-2 nor seasonal influenza are detected on laboratory testing, local risk assessment should guide the decision of whether to pursue further virological testing.

6.4 Declaration of outbreak

Local HPT risk assessment as above will inform a decision as to whether the situation meets the definition of an outbreak (see 4. Definitions).

Once an outbreak has been declared, local stakeholders (for example Directors of Public Health and Local Authority Public Health teams) should be informed as per local protocols, and where necessary (for example complex situations, with large numbers of cases) an outbreak control team (OCT) should be considered.

Consider the need for an OCT if:

- there has been a death at the school or college
- there are a large number of vulnerable children
- there are a high number of cases
- the outbreak has been ongoing despite usual control measures
- there are concerns on the safe running of the school
- there are other factors that require multi-agency coordination and decision making

7. Outbreak control and communications

7.1 Infection control

During the COVID-19 pandemic, for any ARI outbreak in a school, until COVID-19 has been ruled out, all IPC and PPE measures (where appropriate) should be implemented according to the more stringent COVID-19 protocols, including⁴⁻⁶:

- COVID-19 [guidance on full opening of schools](#)
- COVID-19 [guidance on cleaning in non-healthcare settings](#)
- COVID-19 [guidance on safe working in education, childcare and children's social care](#)

Remember that during periods of sustained community transmission of COVID-19, the more stringent measures for IPC, social distancing and PPE (where appropriate) will continue to be required even outside of outbreak situations.

7.2 Key response measures: cases

When a case becomes unwell with ARI symptoms (see definitions page 9), these should be managed as presumed COVID-19 cases in the first instance². Therefore:

- students who become unwell with ARI symptoms at school or college should be isolated (with adult supervision or care as required, wearing PPE if contact <2m is required) until they are able to leave the premises or collected by a parent, guardian or carer, as per national schools SOP – the student and their family should be advised to self-isolate and to arrange a COVID-19 test promptly
- staff members who become unwell with ARI symptoms should be excluded from work, advised to self-isolate and to arrange a prompt test for COVID-19 as a minimum

If an individual develops a second separate episode of ARI symptoms, they should again self-isolate and test for COVID-19, irrespective of whether the case or their household member has previously tested positive.

Duration of exclusion of cases

Confirmed COVID-19 cases should self-isolate for a minimum of 10 days after symptom onset (or for 10 days after positive test if asymptomatic). They may return if

their symptoms have gone or if they continue to have just a cough or anosmia. This is because a cough or anosmia can last for several weeks once the infection has gone.

If they still have a high temperature after 10 days, they should stay at home and seek medical advice.

Symptomatic individuals whose laboratory tests are negative for COVID-19 (including those who test positive for influenza) should be excluded from school until they have been free from acute symptoms and afebrile for 24 hours. If they are a close or proximity contact of a COVID-19 case they need to continue to self-isolate for 10 days from last exposure (or re-set the clock to isolating for 10 days after symptom onset) as per [national guidance](#)¹⁰.

7.3 Key response measures: contacts

Household contacts of confirmed COVID-19 cases will be advised through NHS Test and Trace to self-isolate for 10 days. Contact definitions for COVID-19 are defined in [national guidance](#)¹³.

Local HPT risk assessment will determine which other contacts (for example, within a school cohort, class or 'bubble') should be advised to self-isolate for 10 days from the last point of contact with the case. This group will not be eligible for testing through the National Testing Service unless symptomatic².

Any contacts who are symptomatic should be advised to stay in self-isolation and test for COVID-19. If symptomatic contacts do not get tested, they should remain excluded for 10 days from the last point of contact with the confirmed case².

Asymptomatic people who are swabbed (for whatever reason) and found to be COVID-19 positive will be advised to self-isolate until 10 days after date of specimen; or if they go on to develop ARI symptoms, to re-set the clock to 10 days after symptom onset².

7.4 Communications

The school should ensure effective communication to:

- raise awareness among parents and guardians of the ARI outbreak – this is often achieved through a written communication agreed and disseminated by the school through its existing mechanisms; for a COVID-19 outbreak, example letters to direct close and proximity contacts, and warn and inform letters are included in the school's SOP²

- provide consistent messaging that symptomatic children should be excluded from school until they have been afebrile for 24 hours and feeling well (or in the case of COVID-19 positive cases or contacts, for the duration of exclusion outlined above)
- publicising clear respiratory hygiene measures within the school such as regular handwashing and 'Catch It, Bin It, Kill It' type messages – examples are included in the school's SOP²

7.5 Influenza Antiviral treatment

Influenza antiviral treatment may be recommended for certain children during confirmed influenza outbreaks. Any decision to recommend influenza antiviral treatment:

- must be based on local risk assessment
- must be communicated clearly in outbreak-related communications to parents and guardians

Where influenza antiviral treatment is recommended, the local HPT should advise that:

- exposed children in clinical risk groups (see 2. Background) who have not received seasonal influenza vaccination, or who received this vaccination less than 14 days prior to exposure, should be considered for antiviral prophylaxis with oseltamivir by a hospital health professional or paediatrician – this advice relates to exposure within the last 48 hours (or within 36 hours for zanamivir) if this risk assessment is likely to be feasible within this time period
- symptomatic children in clinical risk groups may be considered for antiviral treatment with oseltamivir within 48 hours of onset (or within 36 hours for zanamivir) in accordance with [national guidance on influenza treatment and prophylaxis using anti-viral agents](#)¹⁴

Outside of the Chief Medical Officer (CMO) defined flu season, antivirals cannot be prescribed on the normal community prescription form (FP10) but need to be prescribed on a Patient Specific Direction (PSD) (or could be a Patient Group Direction, PGD, for large groups). Local plans should be agreed in advance between the CCG, the HPT and other relevant partners on how best to implement this and arrangements clearly communicated to all parties prior to the start of the flu season.

When the number of children in clinical risk groups is thought to form a relatively small proportion of the school's pupils and the CMO has advised that antivirals may be prescribed by a hospital health professional or paediatrician. Consider writing a letter to parents or guardians to explain the situation. An alternative would be to telephone the parents directly, if this would expedite access to antivirals within the recommended time periods for starting prophylaxis (36 to 48 hours depending on the individual medicine).

Parents or guardians with an exposed child in a clinical risk group should then contact their specialist clinician looking after their child or be referred to paediatric A&E department to be considered for antivirals; the local HPT may need to facilitate this according to local processes. This is the preferable approach, as these health professionals will have the relevant medical history for these children.

If antivirals are indicated, the local HPT should discuss procurement with the local NHS commissioner as soon as possible.

The need for antivirals among staff in clinical risk groups should be addressed in a similar way to that outlined for children above.

7.6 Influenza vaccination

In a confirmed influenza outbreak, consideration should be given to wider influenza vaccination throughout the educational setting, especially in settings with low uptake of influenza vaccination to date. This may mean bringing the routine vaccination date forward or repeating the offer of vaccination.

The vaccination does not provide post-exposure prophylaxis. Two weeks are required for the immune response to vaccination to develop, and so this is unlikely to prevent secondary and tertiary cases. However, if an influenza outbreak is occurring in a school where flu vaccination has yet to be delivered, it should be explored whether the vaccination session can be brought forward; this may help to prevent further transmission and shorten the duration of the outbreak.

7.7 Follow-up

Follow-up of individual outbreaks in schools should be undertaken according to local HPT processes.

Schools should be advised when to call the HPT, especially if there are any features of concern (such as those outlined for calling an OCT, see 6.4 Declaration of outbreak).

7.8 Temporary closure

It is anticipated that temporary closure of a school for public health reasons is likely to be an infrequent measure for ARI outbreaks. Any enquiry about potential closures on public health grounds should be discussed by the school management team directly with the local **PHE Health Protection Team**¹⁵ in the first instance, and school closure on public health grounds should be an OCT decision. Any decision to temporarily close for business continuity reasons, such as staff shortages, is a decision for the school management and local education authority, where applicable; however, it should be

made clear to parents, guardians and staff that this decision has not been made on public health grounds.

7.9 Recording and surveillance

Information about acute viral ARI outbreaks in schools where the causative agent is identified should, in the first instance, be recorded on HPZone as per routine practice and data captured in the HPZone metrics when possible rather than as free text. See Box 1. These data will then be extracted by the national surveillance team and reported on in the weekly surveillance reports.

In addition, local health protection teams are requested to complete an Acute Respiratory Infection: Outbreak Reporting Form via [Select Survey](#) with final information at the end of the outbreak.

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Appendix I: Additional considerations for residential educational settings

Follow guidance on [isolation for residential educational settings](#) in the context of COVID-19¹⁶.

COVID-19 outbreaks in this setting should be defined according to [national guidance](#)¹¹.

COVID-19 testing should be accessed via the usual National Testing System Pillar 2 local arrangements.

Ensure a consistent case definition is used with healthcare providers and a consistent method of monitoring number of cases is agreed from the outset.

Transmission may vary according to individual boarding houses, so extra sampling of symptomatic persons in different boarding houses should be considered, following discussion with the local Public Health Laboratory.

Clarify seasonal influenza vaccination provision and uptake among pupils.

If the school hosts international students, determine timing of onset relative to timing of arrival from a foreign country; also determine whether quarantine on arrival to the UK has been necessary, and if so whether this was done before attending school premises.

Consider if exclusion from the school is possible; if this is not possible, then advise restriction within residential accommodation until asymptomatic.

Maintain awareness of the possibility of other respiratory infections and consider using locally agreed arrangements to test for influenza and other respiratory viruses by swabbing the most recent symptomatic cases when required in the inter-seasonal period or early in the influenza season, to inform risk assessment and outbreak management.

Primary care health professionals assessing suspected or confirmed cases should advise the local NHS trust in relation to the outbreak, if referred for investigation, so that appropriate infection prevention and control measures can be taken.

MOSA boarding school surveillance scheme

A number of boarding schools in England within the Medical Officers of Schools Association (MOSA) network are recruited each September to report on acute respiratory viral infection presentations. Outputs are reported in the weekly flu and COVID surveillance report. Schools will be offered the opportunity to conduct enhanced surveillance of outbreaks when they occur. HPTs should liaise with the national flu team if they become aware of COVID or flu outbreaks in recruited MOSA schools. Please email mosa@phe.gov.uk for more information.

Additional references (Appendix I)

Johnson, et al. Seroepidemiologic study of pandemic (H1N1) 2009 during outbreak in a boarding school, England. *Emerging Infectious Diseases*. 2011 Sep;17(9):1670-7.
https://wwwnc.cdc.gov/eid/article/17/9/10-0761_article

Appendix II: Additional considerations for special school settings

Special schools and other specialist settings in the context of COVID-19 should follow the [guidance for full opening: special schools and other specialist settings](#)¹⁷.

Special educational needs and disabilities (SEND) include 4 different areas of need, including communicating and interacting; cognition and learning; social, emotional and mental health difficulties and sensory or physical needs¹⁸.

Many children and young people with special educational needs and disabilities have 1 or more conditions which place them at increased risk of severe influenza infection, and as such are likely to be members of clinical risk groups. Examples of relevant conditions include, but are not limited to, cerebral palsy, hydrocephalus, neuromuscular diseases (for example spinal muscular atrophy, Duchenne muscular dystrophy)^{19,20}.

Therefore, an influenza outbreak in a special school setting, where a significant proportion of the learners are members of clinical risk groups, has the potential for serious clinical illness.

Rapid public health intervention following a thorough risk assessment, is therefore justified in relation to outbreaks in such settings. Confirmation of the causative organism by rapidly testing recent symptomatic cases for COVID-19, influenza and other respiratory viruses is useful to inform management. Advice on consideration of antivirals where influenza is strongly suspected or laboratory confirmed can be obtained from the National Infection Service, as required.

In order to support rapid public health action, when the CMO has advised that seasonal influenza is circulating in the community, local NHS commissioners should determine if central distribution of antiviral treatment or prophylaxis in confirmed influenza outbreaks would be more practicable than individual children's families contacting their specialist health professionals and paediatric A&E. When flu is not circulating, the local HPT will need to work with NHS commissioners to identify alternative mechanisms for accessing and prescribing antivirals for treatment or prophylaxis in a timely way.

Individual children with special needs, attending other settings (for example mainstream schools), should receive information as outlined in the control measures section. Centralised prescribing and distribution may not be required, as there may be a smaller number of children in clinical risk groups in these settings.

Outside of the CMO defined flu season, antivirals cannot be prescribed on the normal community prescription form (FP10) but need to be prescribed on a PSD (or could be PGD for large groups). Local plans should be agreed in advance between the CCG, the HPT and other relevant partners on how best to implement this and arrangements clearly communicated to all parties prior to the start of the flu season.

Appendix III: Flowchart



Public Health
England



Algorithm for outbreaks of acute respiratory infection in schools

