



Public Health
England

Protecting and improving the nation's health

Guidance on Infection Control for Chickenpox and Shingles in Prisons, Immigration Removal Centres and other Prescribed Places of Detention

August 2017 (fourth edition)

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health, and are a distinct delivery organisation with operational autonomy to advise and support government, local authorities and the NHS in a professionally independent manner.

Public Health England
Wellington House
133-155 Waterloo Road
London SE1 8UG
Tel: 020 7654 8000
www.gov.uk/phe
Twitter: @PHE_uk
Facebook: www.facebook.com/PublicHealthEngland

For queries relating to this document, please contact: health&justice@phe.gov.uk

© Crown copyright 2017

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v3.0. To view this licence, visit [OGL](https://www.nationalarchives.gov.uk/og/) or email psi@nationalarchives.gsi.gov.uk. Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

Published: August 2017
PHE publications
gateway number: 2017259

PHE supports the UN
Sustainable Development Goals



Title	Guidance on Infection Control for Chickenpox and Shingles in Prisons, Immigration Removal Centres and other Prescribed Places of Detention: August 2017 (fourth edition)
Type	Operational guidance
Author/s	Dr Éamonn O'Moore, National Lead for Health and Justice, Public Health England and Director of the UK Collaborating Centre for WHO Health in Prisons (European Region) Susanne Howes, PHE Health and Justice Public Health Specialist, Co-Chair, Health and Justice Health Protection Network
Other contributors	Rachel Campbell, PHE Health and Justice Public Health Specialist, South West Maciej Czachorowski, Epi-scientist, PHE Health and Justice Jo Peden, Consultant in Public Health, PHE Health and Justice Jane de Burgh, Senior Health Protection Specialist & Health & Justice Health Protection lead, South London Health Protection Team Mandy Lord, Health Protection Practitioner & Health & Justice Health Protection lead, Surrey & Sussex Health Protection Team Simone Thorn Heathcock, Nurse Consultant & Health & Justice Health Protection lead, North East & North Central Health Protection Team
Date of issue	August 2017
Current version	4.0
Circulation list	Prison Governors and Directors Immigration Removal Centres Prison Healthcare staff NHS England Health and Justice Commissioners PHE Centre Health Protection Teams Directors of Public Health Immigration Removal Centre Healthcare Teams Children and Young Persons' Secure Estate Managers and Healthcare Teams
Review date	August 2019

Contents

About Public Health England	2
Glossary	5
Contents	
1. Scope of guidance	6
2. Signs and symptoms of infection	7
3. Staff immune status and immunisation	10
4. Case and contact management	11
5. Varicella zoster immunoglobulin (VZIG)	19
6. Varicella zoster vaccination	20
7. Further information and useful contacts	21
References	22
How to take chicken pox oral fluid and vesicle swabs	23
Flowchart for post exposure prophylaxis in Immigration	24

Glossary

CCDC	Consultant in Communicable Disease Control
CHP	Consultant in Health Protection
HMPPS	Her Majesty's Prison and Probation Service
HPT	Health Protection Team
IRC	Immigration Removal Centre
PCR	Polymerase Chain Reaction
PHE	Public Health England
OCT	Outbreak Control Team
VZIG	Varicella Zoster Immunoglobulin

1. Scope of guidance

This document provides guidance to healthcare and other staff in prisons, immigration removal centres and other places of detention in England and Wales in managing individual cases or outbreaks of chickenpox or shingles among both staff and prisoners.

This guidance is based on a review of the international published literature of chickenpox outbreaks in prisons^{i,ii,iii,iv} as well as a review of individual cases and outbreaks reported through Public Health England's National Health and Justice team surveillance system. The purpose of developing this specific guidance is to account for:

1. Features of infection prevention and control particular to prisons and other places of detention
2. Higher susceptibility to chickenpox among foreign-born prisoners and detainee populations because:
 - persons from rural tropical and subtropical regions are less likely than those from temperate zones to be infected as children, resulting in susceptibility in adulthood (6-fold higher susceptibility than Western European adults^{iv})
 - infants and children, the group most likely to be infected with chickenpox, are located in some prisons and places of detention
 - increased prevalence of vulnerability to serious illness resulting from chickenpox in some detention populations (eg people living with HIV or AIDS, pregnant women, immunosuppressed people)

The information in this document is collated from the current guidelines (see Section 8.2) available to health care practitioners. The aim here is to translate this into a document that is operationally relevant to prison and detention settings in the situation of chickenpox or shingles cases and chickenpox outbreaks. In addition, this document also provides guidance on the protection of vulnerable contacts.

2. Signs and symptoms of infection

2.1 Chickenpox

Chickenpox is an infectious disease caused by the varicella virus, a member of the *herpes virus* family. Symptoms usually begin with one or two days of fever, flu-like symptoms and general malaise, although this may be absent. The classical sign of infection is the appearance of crops of blisters (vesicles) on the face and scalp, which spread to the trunk and eventually the limbs. The blisters are often intensely itchy. After three or four days, the blisters dry out and scab over (see Figures 1 and 2). At any time there will be vesicles at different stages of formation.

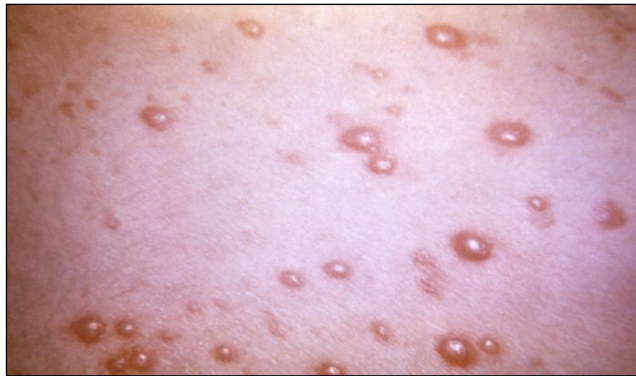


Figure 1: Classic chickenpox rash

Source: Center for Disease Control and Prevention, Dr. K.L. Hermann, ID 5047.



Figure 2: Resolving chickenpox rash with encrusted lesions in resolution phase

Source: Department of Dermatology, University of Erlangen, Germany.

Chickenpox is a relatively common infection in children in the UK and although it is sometimes troublesome, it is rarely a cause of significant illness. However, the disease can be more serious in adults, particularly in pregnant women, those who smoke or who are immunosuppressed. Such individuals may be at increased risk of severe varicella pneumonia. In pregnancy, the foetus is at risk, particularly before 20 weeks of gestation, when congenital varicella syndrome may occur in about two per cent of those exposed.

2.2 Shingles

Shingles or herpes zoster is caused by reactivation of previous chickenpox virus infection, which can lie dormant in nerve cells. Shingles is more common in the elderly and the immunosuppressed, and presents with blisters in a localised area of skin supplied by the nerve in which the virus has been dormant (see Figure 3). The affected area may be very painful. In some patients with advanced HIV infection, or other causes of immunosuppression, shingles may affect more than one area of the skin (multi-dermatomal herpes zoster).



Figure 3: Shingles rash
Source: Centre for Disease Control and Prevention.

2.3 Incubation period, mode of transmission and period of communicability

The incubation period (ie the time from infection with the virus to the appearance of symptoms) is 7-21 days. The average time is about 15-18 days. Humans are the only reservoir of infection. Chickenpox is highly infectious. Shingles is also infectious, but less so. Chickenpox can be transmitted directly by person-to-person contact or by airborne droplet spread from a case. Spread can also occur from a shingles case if the lesion is on an exposed site and there is direct contact with a susceptible person. Articles of clothing, bed linen or furniture recently contaminated with discharges from vesicles or mucous membranes may also spread infection. About 9 out of 10 susceptible children will become infected if they are exposed to a case during the infectious period^v.

The infectious period for chickenpox is between 48 hours prior to the onset of the rash until crusting of lesions. For shingles (where the rash is on an exposed site), the infectious period is from the onset of the rash until crusting of lesions.

2.4 Significant exposure definition^{vi}

Where all of the following three criteria are met exposure to varicella virus is considered to be significant:

1. Type of infection in the case

The case must be clinically assessed by a doctor and chickenpox or shingles must be a probable diagnosis.

2. Timing of the exposure in relation to the onset of rash in the case

The exposure must take place during the period of communicability ie from 48 hours before the development of the rash until it has crusted over for chickenpox, or from rash onset to crusting of lesions for shingles.

3. Closeness and duration of contact with the case

Being in the same room for 15 minutes or more with a case of chickenpox, or face-to-face contact with a case of chickenpox, or direct contact with a shingles rash on an exposed part of the body when the lesions have not yet crusted over.

3. Staff immune status and immunisation

Non-immune staff are at risk of both contracting and transmitting infection in environments such as prisons or immigration removal centres. The higher than average risk in these environments is due to the closeness of the population and the fact that, particularly in immigration removal centres, there are likely to be many individuals who are naïve to varicella especially if they are adults from tropical areas^{vii}.

Cases of chickenpox and shingles and outbreaks of chickenpox continue to be reported from places of detention in England 2016 (5 cases of chicken pox in IRCs & 5 cases of shingles in prisons) (*personal communication from the national health and justice surveillance system*). These figures confirm that this disease is not uncommon and it needs to be managed appropriately to avoid closure of units and disruption to core business.

As stated above, chickenpox can be more serious in adults, particularly pregnant women and those who smoke. In cases of high-risk vulnerable^{vi} staff being exposed to varicella, advice from a doctor should be sought. The risk to staff is dependent on their immune status and 90% of adults raised in the UK are immune. In most situations, a definite history of chickenpox is usually sufficient evidence that a staff member is immune, with history of chickenpox having a positive predictive value of 90%^{iv}. The history may be less reliable, however, in people raised in tropical countries where chickenpox is less common and other causes of rash more numerous. When chickenpox occurs in a detention setting, only those staff who have a reliable history of chickenpox, have been confirmed to be immune, or have been vaccinated should attend cases or staff units with more than one case. It is therefore advisable that staff with an uncertain history of chickenpox have a blood test to determine the varicella immune status, ideally prior to commencing employment. This is highly desirable for pregnant women and staff who are immunosuppressed.

Non-immune staff who are exposed to chickenpox and themselves become infectious, risk spreading the disease to others. Thus, staff without a definite history of chickenpox who have inadvertently had significant exposure (see above) will need to be identified and have their immune status checked, as part of the management of any incident. If then found to be non-immune appropriate action to prevent further spread should be taken, such as exclusion from work for the duration of the incubation period.

The above risks can be reduced if non-immune staff are identified *before* their employment in such centres and offered vaccination. If an occupational health service exists this should be used as a priority over contacting the GP.

4. Case and contact management

Any infectious disease incident in a prison or immigration removal centre or other prescribed place of detention must be immediately reported to the Consultant in Communicable Disease Control (CCDC) by contacting the Health Protection Duty Team of the local Public Health Centre (PHE) (contact details are available from <https://www.gov.uk/contacts-phe-regions-and-local-centres>.)

An incident may be an outbreak (two or more connected cases of varicella and/or zoster) or a single case of varicella or zoster that has implications for infection control.

Infectious disease incidents are managed by CCDC/CHP (see Prison Outbreak plan^{viii}) in their local community, which includes prisons and other detention settings. Benefits to a prison or centre when involving their local CCDC/CHP include expert advice on infection prevention and control and facilitating outside laboratory testing and hospitalisation, where necessary.

This guidance refers specifically to Chickenpox and Shingles, both *Single Case Situations* (Section 4.1 on page 4) and *Outbreak Situations* (Section 4.2 on page 6). In addition, there is a further section on *Case Management of HIV-Infected Individuals* (section 4.3) relating both to detainees and staff.

Additionally, information on chickenpox and shingles, like other communicable diseases, and their prevention and control, can be found in the manual 'Prevention of infection and communicable disease control in prisons and places of detention' <https://www.gov.uk/government/publications/infection-control-in-prisons-and-places-of-detention>

4.1 Single case situation

There is no need to close detention settings to new admissions based on a single case of chickenpox or shingles being identified.

Rapid consultation with the local CCDC and adherence to advice given is necessary to avoid onward transmission of infection and the development of new cases.

Recommended actions for managing a single chickenpox case in prison or other detention settings are:

1. When a diagnosis is suspected (possible case), the doctor providing health care to the centre should assess the individual as soon as possible to establish

whether chickenpox is the most likely diagnosis, ie whether this is a probable case. The centre doctor might discuss the diagnosis but more specifically infection control related issues with the CCDC/CHP at the local HPT, who may seek expert clinical guidance from the local infectious disease unit, if necessary (CCDC/CHP contact details are available at <https://www.gov.uk/contacts-phe-regions-and-local-centres>).

2. A possible case of chicken pox should be isolated in a separate room within the prison or detention setting. A possible case of shingles should be isolated in a separate room until a discussion with the CCDC/CHP has taken place.
3. Following clinical confirmation of diagnosis as probable or confirmed by the doctor. Isolation should continue until the lesions have crusted over.
4. Usually clinical diagnosis is sufficient to confirm chickenpox; a careful history and/or close observation of the progression of the rash will usually allow the doctor to be confident of the diagnosis. A probable diagnosis can be assisted by discussion with the local CCDC/CHP, and additional information (such as a history of chicken pox in childhood) may be helpful. However, in some circumstances, especially in Immigration Removal Centres where there might be higher numbers of susceptible individuals amongst detainees, it might be advisable to request laboratory confirmation, if the treating physician has reservations about the certainty of diagnosis based purely on clinical picture (atypical presentations; few lesions) This will allow the reviewing of control measures following exclusion of laboratory diagnosis of chickenpox, with earlier resumption of normal activity in the centre.
5. For laboratory diagnosis of chickenpox a PCR (Polymerase Chain Reaction) test for varicella-zoster virus DNA should be requested. For the PCR test, cells and fluid from the base of a vesicle are required. Using a sterile needle gently lift the edge of one of the larger vesicles (ie un-roof the vesicle) and rub the base of the lesion using a dry virus swab. The swab should then be put into a sterile container (this will require cutting the shaft with scissors), such as urine container, and sent to nearest laboratory requesting varicella-zoster DNA PCR. The correct execution of the sample taking is key to a reliable result. (See *attached instructions for PCR testing*) VZV antibody test (IgG/IgM) on a blood sample are not recommended for diagnosis of chickenpox because of the timing of appearance of the antibody and the difficulty in interpreting results if test is not done at the correct time.

6. While in isolation the case should take all their meals in this room and not in communal dining areas during this period. Only confirmed immune/immunised healthcare workers, prison/ centre staff or family members (unless the case is accommodated in a mother & baby unit - see point 10 below) should enter this room to administer treatment, bring food and beverages, change linen etc.
7. Where the isolation room does not have adjacent bathing facilities, the case should use the nearest facilities separately *before* or *after* the block/ wing prisoners or detainees have showered.
8. If the isolation room does not have adjacent toilet facilities, a toilet should be designated for sole use by the case. Contact with other prisoners/ detainees and susceptible staff en route to the toilet should be avoided.
9. No special measures are necessary for cleaning or disposal of linen and laundry or dishes, glasses and eating utensils used by the case, assuming a reasonable level of hygiene is maintained in the prison or centre, comparable with community hospitals.
10. Where the case is an infant in a mother & baby unit, parent/s should be accommodated in the same room as their child for the same duration as their infant is isolated, regardless of the parental immune status. Parents without a reliable history of chickenpox should be offered testing to ascertain their *varicella* immune status. If they are confirmed to be immune by history or blood test, it is reasonable for them to leave the isolation room as necessary eg to eat, make phone calls, meet visitors etc. If the parent/s are tested and shown to be non-immune, then they should stay in isolation with the infant as per points 2-5 (they may share the designated toilet facility with their child). In addition non-immune parents have a high chance of developing varicella and should remain in isolation until the incubation period for acquiring infection from their infant has passed (21 days from the date of onset of the child's illness). Note that persons from tropical and subtropical regions are more likely to be susceptible to chickenpox in adulthood, and particular care should be taken to establish their immune status.
11. Vulnerable contacts who are susceptible and have had significant exposure (see 2.4 Significant Exposure Definition on page 3) should be offered varicella zoster immunoglobulin (VZIG) prophylaxis (see 5.1 Varicella Zoster Immunoglobulin Dosage and Schedules on page 8). Vulnerable contacts include:
 - pregnant women
 - neonates
 - immunocompromised individuals, including HIV-infected persons

Immune status of vulnerable contacts in relation to *varicella* should be determined by blood test. For those who are non-immune, VZIG should be administered within seven days of initial significant exposure to a case (within ten days for pregnant women).

Guidelines on use of VZIG among different contacts are available at:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/148515/Green-Book-Chapter-34-v2_0.pdf

Advice on VZIG administration should be sought from the local CCDC/CHP, who may liaise with the Centre for Infectious Disease Surveillance and Control for case by case advice.

4.1.1 Management of staff with chickenpox or shingles

All prison / centre staff without a history of chickenpox, should ideally have their varicella immune status tested, and in immigration removal centres those who are non-immune should ideally be offered vaccine, as an occupational health measure (see Section 3). Non-immune and un-immunised staff who develop symptoms of chickenpox infection must inform their employer of their illness and stay away from work until crusting over of lesions. Vulnerable non-immune contacts with significant exposure (see 2.4 Significant Exposure Definition on page 3) to chickenpox-infected staff in the prison or centre should be identified and offered VZIG prophylaxis (see 5.1 Varicella Zoster Immunoglobulin Dosage and Schedules on page 8).

4.1.2 Prisoner and detainee transfer and release arrangements

Case

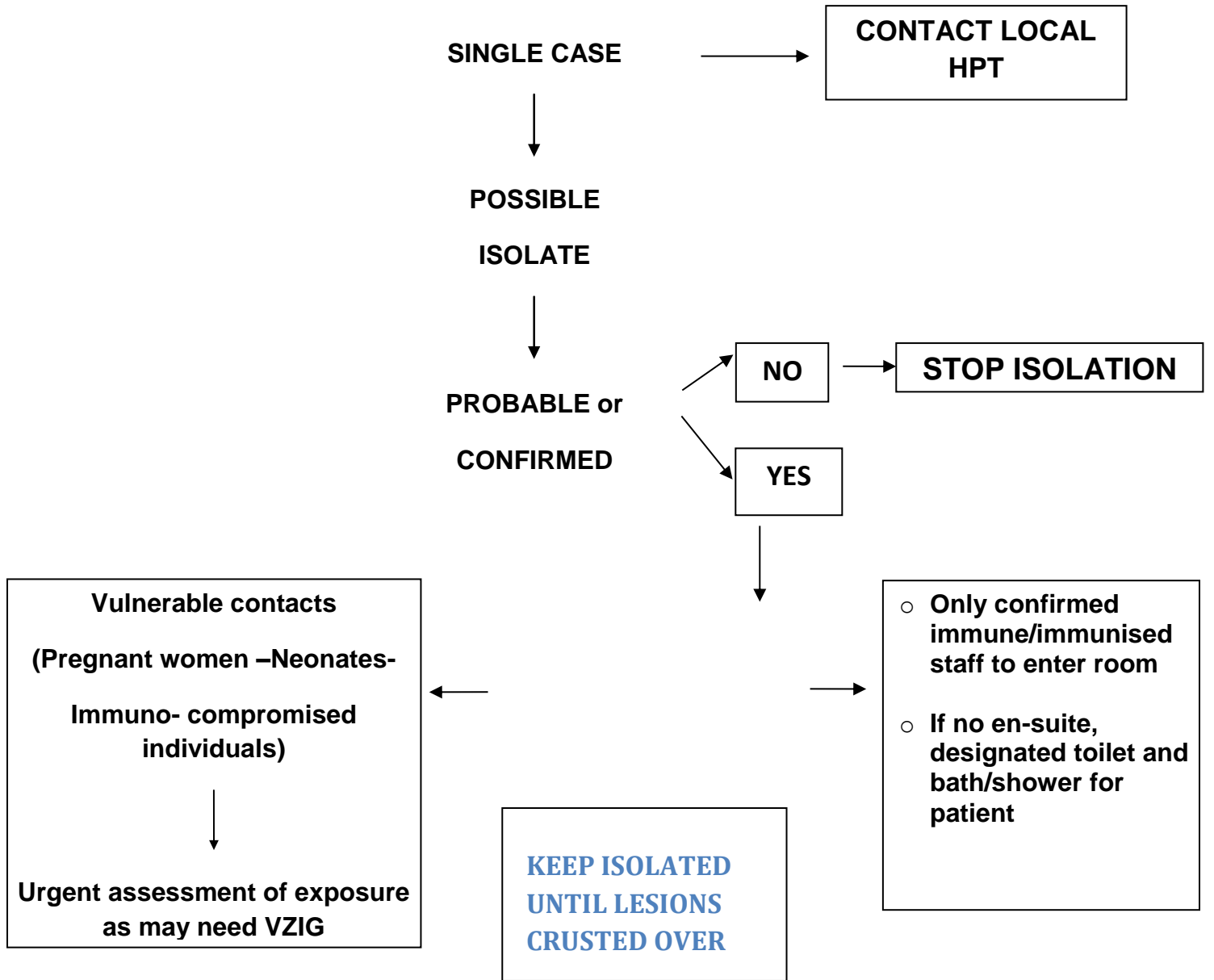
For chickenpox-infected cases, court appearance, transfer to another institution or a flight abroad must be delayed until crusting of lesions. It is essential for the prison doctor or attending physician to put cases on medical hold, including informing the governor or director. Cases being released into the community should be advised they are infectious until crusting of lesions and that they should stay at home during this period.

Contact/s

For a single case of chickenpox in a prison/centre, there are no restrictions on the movements of their asymptomatic contacts. Court appearance, transfer to another institution, release into the community or a flight abroad can proceed as usual. Note that in an outbreak situation however this advice may change.

Algorithm 1: Chickenpox or shingles single case

Chickenpox (or shingles)



NO NEED FOR CLOSURE TO ADMISSIONS FOR A SINGLE CASE OF CHICKENPOX OR

The management of any outbreak will vary depending upon the particular circumstances eg who is affected, how many individuals, where they are located, the vulnerability of other detainees, and the domestic arrangements in the prison / centre. The CCDC/CHP must be involved to advise on infection control where one case has occurred, and must be informed immediately when there is more than one case.

In addition to Single Case Situation recommendations 2 to 8 (Section 4.1 on page 5) and Management of Staff with Chickenpox or Shingles (section 4.1.1 on page 6), actions advised to manage a chickenpox outbreak in a prison or other detention setting may include any or all of the following depending upon the particular circumstances:

- closure of part of the prison / centre to admissions for 21 days (the maximum incubation period) from the onset of symptoms in the most recent case
- admission only to detainees confirmed to be immune to *varicella* by blood test for 21 days from the onset of symptoms in the most recent case
- access to affected parts of the prison / centre restricted to staff confirmed to be immune/immunised for 21 days from the onset of symptoms in the most recent case.
- staffing an empty wing with confirmed immune staff for new admissions, providing there is no mixing of staff, prisoners or detainees with other wings
- restriction of transfers of contacts of cases for 21 days from the onset of symptoms in the case/s they contacted
- quarantine of the whole prison / centre for 21 days from the onset of symptoms in the most recent case

An Outbreak Control Team (OCT) should be convened as per the Multi Agency Contingency Plan for the Management of Communicable Diseases or other Health Protection Incidents in Prisons or other Places of Detention in England

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/585671/multi_agency_prison_outbreak_plan.pdf The CCDC/CHP from PHE Centre HPT will chair the meetings of the OCT. The governor/director/centre manager will lead on all the operational issues pertaining to the effective functioning of the prison/place of detention while the CCDC/CHP will lead on the expert management of the specific incident or outbreak.

The OCT will assess the risk associated with the outbreak, in consultation with other experts as necessary, and will advise the Governor or IRC Manager. Decisions to close all or part of a prison or an IRC cannot be made by the OCT alone. Governors or IRC managers will consult with appropriate persons in their respective chains of command, if advised by the OCT to take this action.

As per the Multi Agency Contingency Plan for the Management of Communicable Diseases or other Health Protection Incidents in Prisons or other Places of Detention in

England, a Microbiologist/Virologist should be invited to attend the OCT. This will assist in the discussion and arrangements regards to diagnostic testing.

Role of vaccination in outbreaks

Varicella vaccination in a prison or centre outbreak is one of a number of possible control measures which may be implemented. In most outbreak situations, mass vaccination will not be required, but rather selected vaccination of non-immune individuals who have been in contact with the case(s)^{viii}. There are often logistical difficulties in assessing immune status and completing the course prior to a prisoner or detainee being transferred / released / deported. Post exposure varicella vaccination may be effective if given within 72 hours of exposure, with an immune response taking approximately two weeks to develop. In some situations, the local CCDC/CHP and prison or centre healthcare team may opt for vaccination as an outbreak management measure, following a carefully documented assessment of the situation specific risk. Decision-making on varicella vaccination should consider the following:

- current and likely extent of the spread of infection in the prison
- likely impact of mass vaccination (based on likely susceptibility of prison population / prevalence of vulnerable contacts)
- feasibility of implementing timely vaccination including:
 - time necessary to establish individual/s' immune status against *varicella* prior to vaccination
 - availability of trained prison or centre healthcare staff to administer vaccine
 - availability of a varicella vaccine Patient Group Direction
 - feasibility of administering 2 doses in individuals aged 13 years and over in the prison / centre or destination if the prisoner or detainee may be transferred / released/ deported before the course is complete
 - availability of local NHS England funding

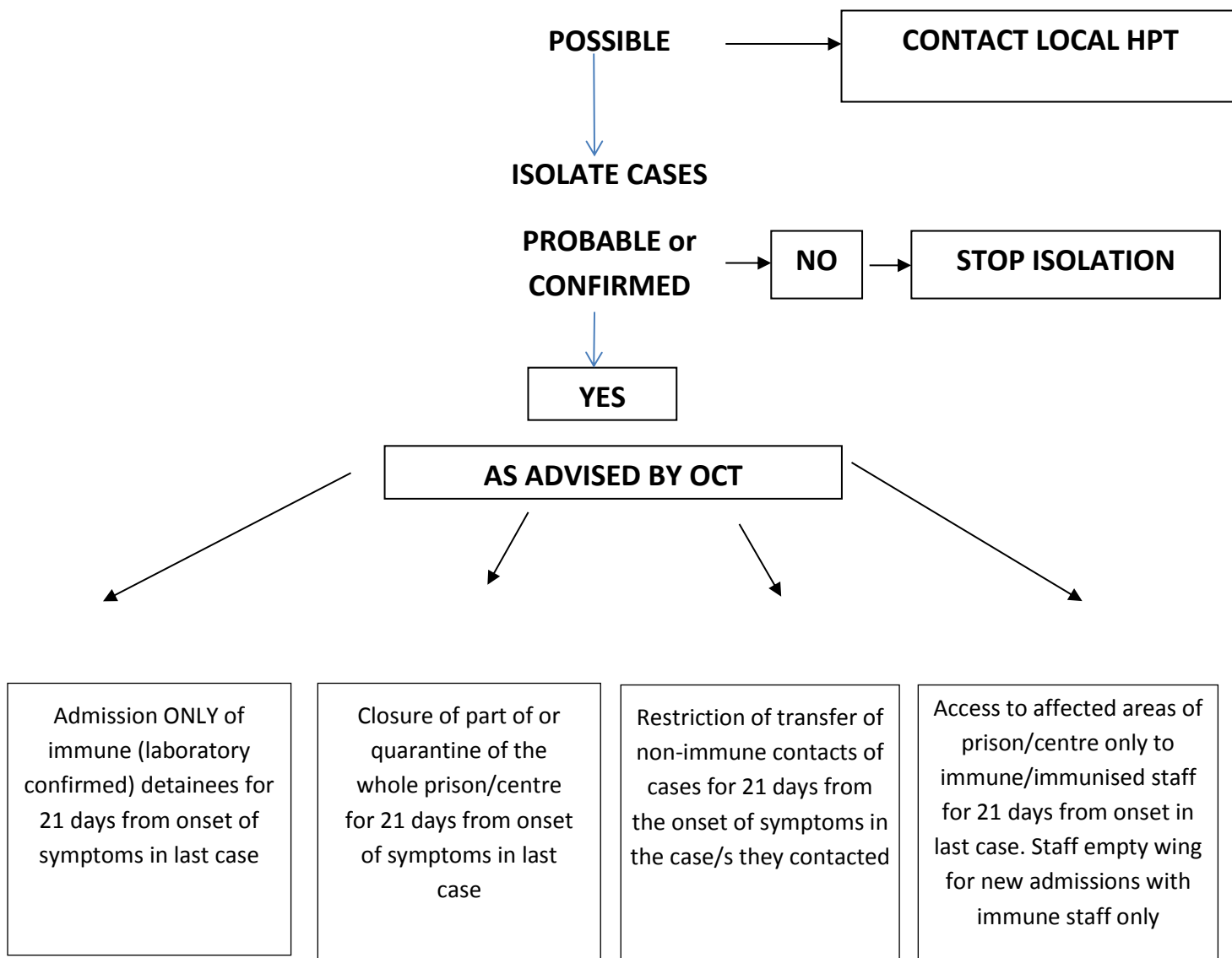
4.3 Management of adult HIV-infected detainees, staff and contacts

Management of cases, staff & contacts with a diagnosis of HIV must be managed in accordance with the British HIV Association *Immunisation Guidelines for HIV-Infected Adults 2015* <http://www.bhiva.org/documents/Guidelines/Vaccination/2015-Vaccination-Guidelines.pdf>^{ix} Whenever possible the guidelines are consistent with recommendations from the Department of Health *Immunisation Against Infectious Disease – 'Green Book'*.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/456562/Green_Book_Chapter_34_v3_0.pdf HIV-infected individuals are at risk of developing severe illness from either varicella or zoster, which may be life-threatening. HIV-infected detainees and staff may conceal their HIV status or not know they are infected.

Algorithm 2: Chickenpox outbreak

CHICKENPOX OUTBREAK (2 or more linked cases)



5. Varicella zoster immunoglobulin (VZIG)

5.1 Dosage, schedules and Contraindications^{vi}

Please refer to the Immunisation against Infectious Disease (the green book) Varicella chapter

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/456562/Green_Book_Chapter_34_v3_0.pdf

And PHE Guidance for Issuing Varicella Zoster Immunoglobulin (VZIG)^x

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/617518/VZIG_guidance.pdf

6. Varicella zoster vaccination

6.1 Dosage, schedules and contraindications^{ix}

Please refer to the Immunisation against Infectious Disease (the green book) Varicella chapter

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/456562/Green_Book_Chapter_34_v3_0.pdf

6.2 Contraindications to varicella zoster vaccination

The vaccine should *not* be given to:

- immune suppressed individuals but see section on HIV in 4.3
- women who are pregnant. Pregnancy should be avoided for three months following the last dose of varicella vaccine.
- individuals with a confirmed anaphylactic reaction to a previous dose of the vaccine
- individuals with a confirmed anaphylactic reaction to any component of the vaccine, including neomycin or gelatine

7. Further information and useful contacts

7.1 Contacts for varicella zoster immunoglobulin

For list of VZIG holding centres in England and Wales and relevant contacts within centres, follow the link:

<https://maps.google.com/maps/ms?ie=UTF&msa=0&msid=110155481786585273569.000465ca748c189b9d13e>

Green Book Chapter - *Varicella*

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/456562/Green_Book_Chapter_34_v3_0.pdf

PHE Guidance for Issuing Varicella-Zoster Immunoglobulin (VZIG) 2017

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/617518/VZIG_guidance.pdf

Public Health England - Prevention of Infection and Communicable Disease Control in Prisons and Places of Detention

<https://www.gov.uk/government/collections/public-health-in-prisons#infection-control-in-prisons-and-secure-settings>

Public Health England – Immunisation: Information for health professionals and immunisation practitioners

<https://www.gov.uk/government/collections/immunisation>

Public Health England - Contacts: PHE regions and local centres

<https://www.gov.uk/contacts-phe-regions-and-local-centres>

Public Health England Public health in prisons and secure settings

<https://www.gov.uk/government/collections/public-health-in-prisons>

NaTHNac (National Travel and Health Network and Centre)

www.nathnac.org/

References

-
- ⁱ Wood R and Stevenson J. Outbreak of Chickenpox in a Scottish Prison. *Communicable Disease and Public Health*. 2004. Sep; 7(3):169-71.
- ⁱⁱ Levy MH, Quilty S, Young LC et al. Pox in the Docks: Varicella Outbreak in an Australian Prison System. *Public Health*. 2003. Nov; 117(6):446-51.
- ⁱⁱⁱ Centers for Disease Control. Varicella Outbreak in a Women's Prison – Kentucky. *MMWR Morb Mortal Wkly Rep*. 1989. Sep 22; 38(37):635-6, 641-2.
- ^{iv} Getaz L. et al. Chickenpox in a Swiss prison: Susceptibility, Post-Exposure Vaccination and Control Measures. *Scandinavian Journal of Infectious Diseases*,2010; 42: 936-940
- ^v Hawker J, Begg N, Blair I, et al. 2006 *Communicable Disease Control Handbook*, Blackwell, UK
- ^{vi} Department of Health 2015 *Immunisation Against Infectious Disease – ‘Green Book’: Varicella*
- ^{vii} B.K. Mandal et al. Adult Susceptibility to Varicella in the Tropics is a Rural Phenomenon due to the Lack of Previous Exposure, *Journal of Infectious Disease* 1998:178 (Suppl 1)
- ^{viii} PHE, Multi-agency contingency plan for the management of outbreaks of communicable diseases or other health protection incidents in prisons and other places of detention in England,2017https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/585671/multi_agency_prison_outbreak_plan.pdf
- ^{ix} British HIV Association Guidelines on the use of Vaccines in HIV positive adults 2015 <http://www.bhiva.org/documents/Guidelines/Vaccination/2015-Vaccination-Guidelines.pdf>
- ^x PHE Guidance for Issuing Varicella-Zoster Immunoglobulin (VZIG) 2017 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/617518/VZIG_guidance.pdf

Public Health England **How to take chickenpox oral fluid and vesicle swabs** V1

1 Contents Swab Test package

- Pink swab (A) and clear tube (B)
- Green screw top containers (C)
- Box (D)
- Request form (E)
- Pre-paid plastic envelope (F)
- White vesicle swab (G)
- A red topped specimen tube (H) (both inside a clear sealed packet)

2 Open the paper packet containing the saliva swab, remove the top from the clear tube (B) and pull out the pink sponge swab along all gums and teeth (if present), a bit like using a toothbrush, for one to two minutes

3 Place the wet swab (A) back inside the clear tube (B) and replace the white cap. Please print the name, date of birth and today's date on the label on the clear tube

4 Place the labelled tube containing the swab inside the 1st green screw top container (C) tube

5 **Either** Open the packet containing the vesicle swab and remove the swab (G). Using a sterile needle gently lift the edge of the largest chickenpox vesicle (i.e. un-roof the vesicle). Rub base of lesion with the swab to collect vesicle fluid and virus-infected epithelial cells

6 Place swab (G) inside specimen collection tube (H), break off the plastic and and replace the red cap. Please print the name, date of birth and today's date on the label on the clear tube

7 **Or** If there are no vesicles, gently remove a scab with a sterile needle and place swab directly into the red top tube (H)

8 Place the labelled tube containing the swab or scab inside the 2nd green screw top container (C) tube

9 Place both the completed request form and the two green top containers back into the cardboard box (D), and then into the pre-paid plastic envelope (F)

10 Seal the envelope. Post it as soon as you can - a stamp is not required

Flowchart for post exposure prophylaxis for chickenpox in Immigration Removal Centres (IRCs)

