Trust Guideline for the Management of Varicella–Zoster Infection for Health Care Workers

Document Control:

For Use In:	Norfolk and Norwich University Hospitals NHS Foundation Trust		
Search Keywords	VZV, Vaccination, Chicken Pox, Occupational Health		
Document Author:	Associate Director - Workplace Health, Safety & Wellbeing		
Document Owner:	Workplace Health and Wellbeing		
Approved By:	Clinical Guidelines Assessment Panel (CGAP)		
Ratified By:	Clinical Safety and Effectiveness Sub-Board		
Approval Date:	20/08/2024	**Date to be reviewed by:** This document remains current after this date but will be under review	20/08/2027
Implementation Date:	See above		
Reference Number:	1270		

Version History:

Version	Date	Author	Reason/Change
V4.1	19/02/2020	Hilary Winch	Addition of version control box due to updated Trust template. No clinical changes, but short review date given as Public Health England is updating the Green Book section.
V5	23/08/2021	Hilary Winch	Updated to reflect PHE Guidance on post exposure prophylaxis (PEP) for Varicella / Shingles
V6	02/08/2024	Hilary Winch	Document transferred to new Trust Procedural document template

Previous Titles for this Document:

Previous Title/Amalgamated Titles	Date Revised
None	

Distribution Control

Printed copies of this document should be considered out of date. The most up to date version is available from the Trust Intranet.

Consultation

The following were consulted during the development of this document:

- Workplace Health and Wellbeing

Monitoring and Review of Procedural Document

The document owner is responsible for monitoring and reviewing the effectiveness of this Procedural Document. This review is continuous however as a minimum will be achieved at the point this procedural document requires a review e.g. changes in legislation, findings from incidents or document expiry.

Relationship of this document to other procedural documents

This document is a clinical guideline applicable to Norfolk & Norwich University Hospitals NHS Foundation Trust please refer to local Trust's procedural documents for further guidance, as noted in Section 5.

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Quick reference

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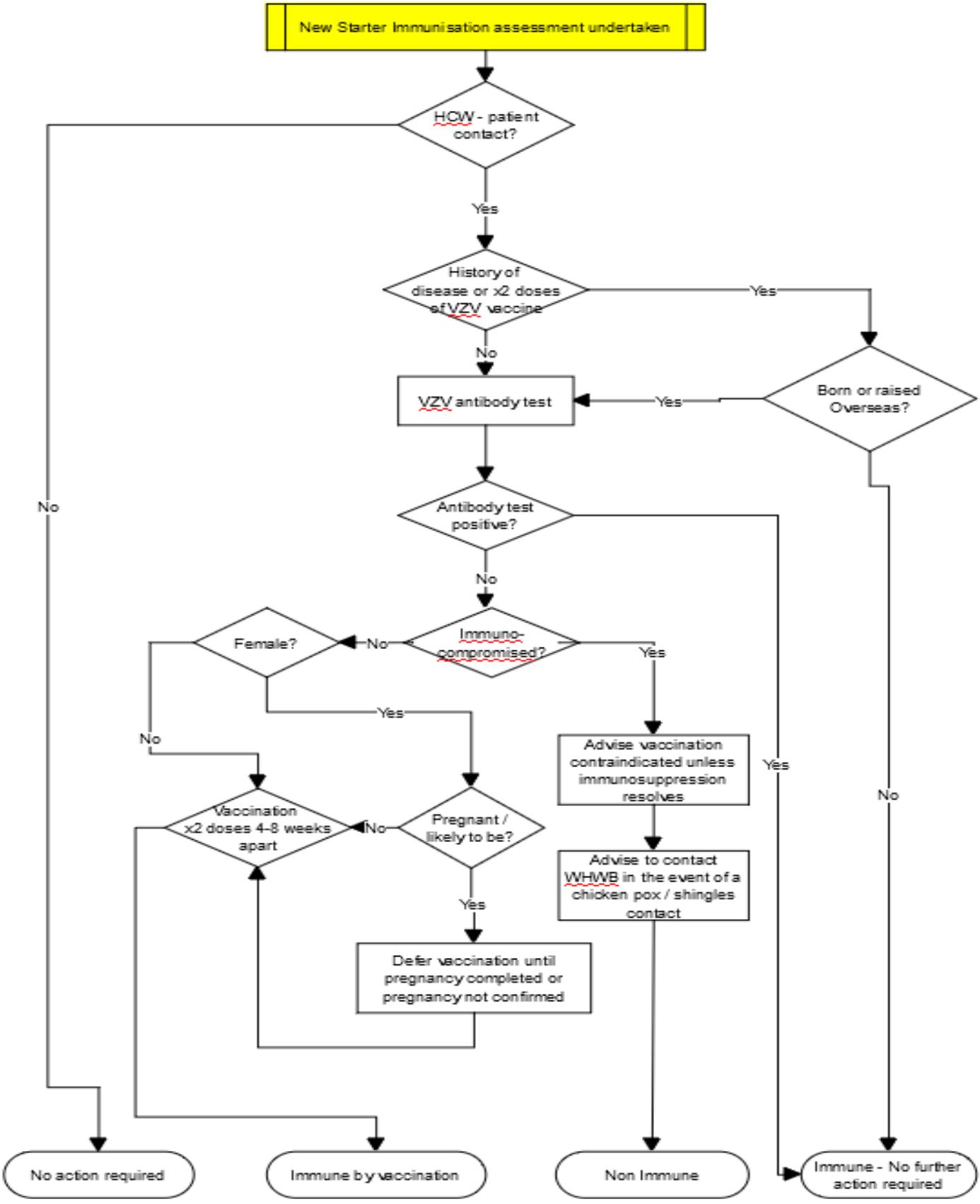
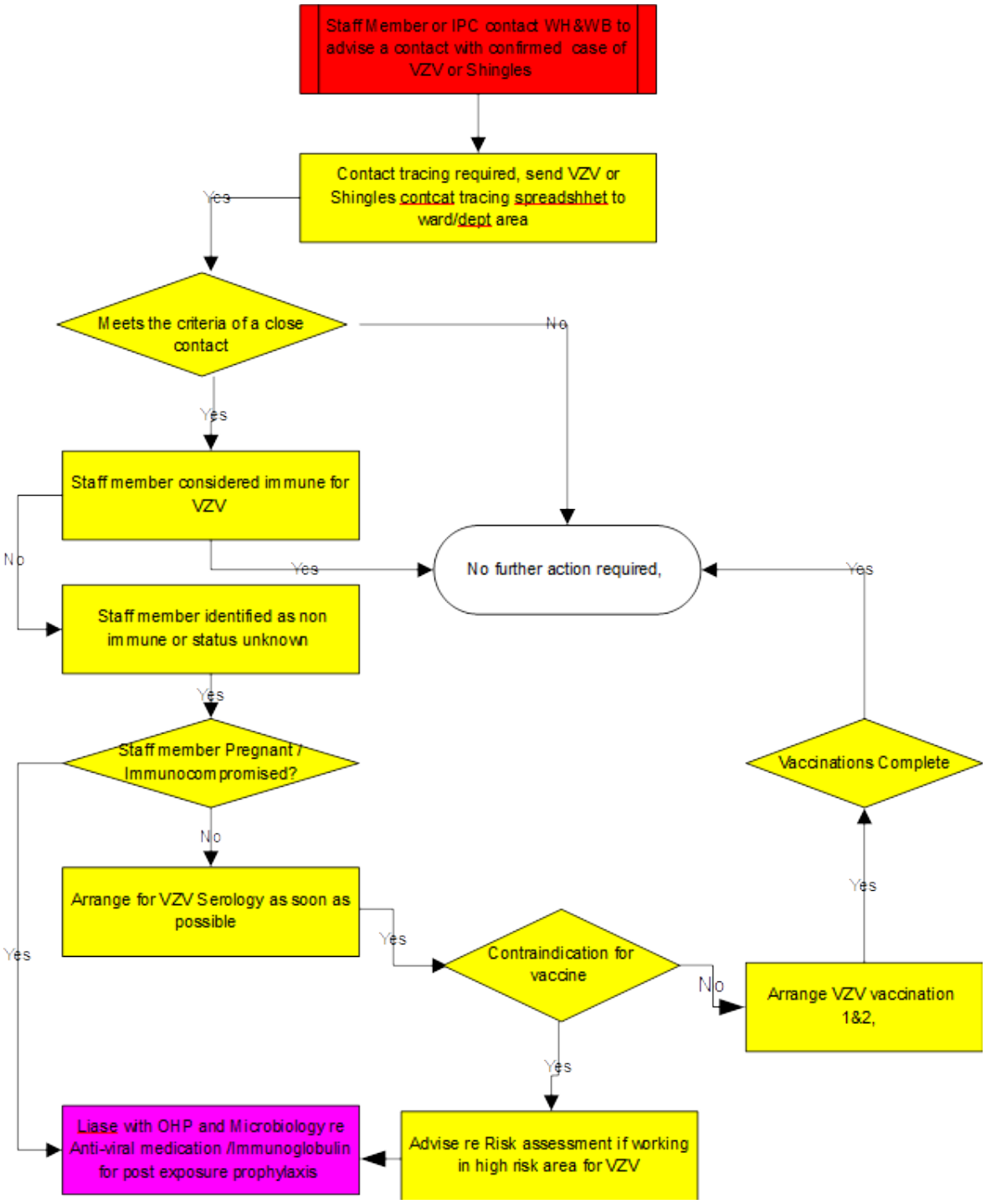


Guideline B – Contact Screening



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1. Introduction

1.1. Rationale

Varicella (Chickenpox) is an acute, highly infectious disease caused by the Varicella Zoster Virus (VZV). In hospitals, Varicella infected persons have transmitted the illness to susceptible persons through airborne routes and without having direct contact.

Groups most at risk of serious illness if infected include:

- Patients with leukaemia and other haematological and non- haematological malignancies.
- Transplant recipients.
- Patients with AIDS.
- Patients on high dose steroids.
- Neonates.

The Green Book Chapter 12 – immunization of Healthcare and Laboratory Staff recommends that Health Care Workers (HCW), non-clinical staff who may have social contact with patients and laboratory staff who regularly handle specimens with a negative or uncertain history of chicken pox should be serologically tested and vaccine offered to those without Varicella zoster antibody. This would not only reduce the exposure of vulnerable patients to staff with varicella but would also avoid the significant costs that are incurred following a VZV exposure where post-exposure prophylaxis or exclusion from work may be required in line with UKHSA guidelines.

1.2. Objective

The objective of this clinical guidance is to:

- To ensure compliance with the Green book, Chapter 12 – (Immunisation of Healthcare and Laboratory Staff) and Chapter 34 – (Varicella)
- To provide guidance on the management of staff when in contact with a case of Chickenpox or shingles.
- To support and advise the Norfolk and Norwich University Hospitals NHS Foundation Trust (the Trust) in its commitment to protecting the health of its employees and protecting patients.

1.3. Scope

This clinical guideline applies to all colleagues employed with the Trust who have direct clinical contact with patients, non-clinical staff who have social contact with patients and laboratory staff who regularly handle specimens. It also applies to Temporary Staffing, volunteers. students or colleagues engaged under an honorary contract who fall within the above categories.

1.4. Glossary

The following terms and abbreviations have been used within this document:

Term	Definition

Chicken Pox	In the UK, chickenpox occurs most commonly during childhood and over 90% of adults are already protected. Chickenpox is the primary infection and is predominantly an infection of childhood. It may begin with a flu-like illness for 1-2 days before onset of the rash. Skin lesions develop in crops and progress from macules through papules and vesicles to scabs over several days. Virus can be isolated from vesicle fluid and the base of fresh lesions. The incubation period is 7 - 21 days, usually about 14 days, but may be prolonged in immunocompromised patients. The infectious period should be taken as being from 24 hours prior to the rash onset to 5 days after rash. In immunosuppressed individuals the infectious period should be taken from 24 hours prior to rash onset until all lesions have crusted over.
HCW	Health Care Workers
WHWB	Workplace Health and Wellbeing
IP&C	Infection Prevention and Control
Post-exposure prophylaxis (PEP)	Post-exposure prophylaxis (PEP) is recommended under this guideline for at-risk staff members (immunosuppressed individuals or pregnant women) who are exposed to VZV in the course of their work. Anti-virals are recommended for PEP in at risk staff. VZIG (immunoglobulin) would only be used for those whom oral antivirals are contraindicated.
PPE	Personal Protection Equipment
Shingles	Shingles is due to the reactivation of latent VZV. It can occur at any age, but most patients are over 50 years. The disease often begins with paraesthesia in the involved segment for 2-3 days. Erythematous maculopapular lesions develop which rapidly evolve into vesicles and may coalesce to form bullae. Infectivity persists for 5-7 days after onset of rash although immuno-compromised patients may be infectious for longer.
The Trust	Norfolk and Norwich University Hospitals NHS Foundation Trust
Varicella Zoster Virus (VZV)	(VZV) is a herpes virus which causes 2 distinct clinical syndromes - chickenpox and shingles. Susceptible individuals may develop chickenpox following contact with a case of chickenpox or shingles. Shingles is due to reactivation of the virus and can develop only in those who have already had chickenpox.

2. Responsibilities

2.1. Chief Executive and Board of Directors

Responsible for ensuring this guideline is being adhered to in order to ensure the health and safety of patients is not compromised by their exposure to HCWs who are infected with VZV and to manage and contain the impact on staff and other patients if an outbreak occurs.

2.2. Employees or temporary staff who have contact with patients

Any employee who:

- has clinical or non-clinical contact with patients and who are uncertain regarding their history of chicken pox should attend Workplace Health and Wellbeing (WHWB) for serological testing.
- are not immune and have had a contact with VZV (either work based or socially) should advise WHWB as soon as possible so that any necessary contact tracing can be implemented.
- develops a rash after having the vaccine should report to WHWB before having patient contact.

2.3. Line Managers

It is the responsibility of line managers to:

- ensure all staff within their environments attend immunisation appointments and updates when commencing employment within the trust.
- inform Infection Prevention & Control and WHWB if a member of staff or patient is diagnosed / exposed to VZV.
- provide information to WHWB / Infection Prevention and Control (IP&C) Team when contact tracing programmes are required. The information should include an escalation route when departmental areas are not responding in accordance with the required timeline for VZV exclusion. WHWB will require the line manager to provide the name of an allocated contact for WHWB to communicate to regarding closing the case in the event of a lack of communication from the affected area/staff.
- implement exclusion from work policies if staff members are identified through WHWB as being ‘at risk’ of incubating Varicella.
- ensure appropriate Personal Protection Equipment (PPE) is available and used by staff when caring for patients with suspected or confirmed VZV.

2.4. Workplace Health and Wellbeing

- To assess (see Quick Reference Guide A) HCWs evidence as to whether they are immune to VZV. Acceptable evidence is suggested as:
    - Confirmation of a definite history of chickenpox or shingles on the health questionnaire.
    - Documented evidence of two doses of Varicella vaccine.
    - Documented serology evidence of immunity to Varicella.
- To undertake serological testing on all new HCWs who have an uncertain or negative history to VZV.
- To undertake serological testing on all new HCWs who have an uncertain or negative history to VZV.
- In the event of a contact trace to undertake serological testing in immunocompromised HCWs, as exposure and development of Varicella in these individuals could have more severe consequences.
- To offer the Varicella vaccine to those staff who have direct patient contact and test negative to serological testing, providing no contra-indications for the vaccine administration are identified. This will protect susceptible HCWs as well as vulnerable patients from acquiring chickenpox from an infected member of staff.
- The vaccine can be offered after a potential contact with chickenpox irrespective of the interval since exposure, to reduce the risk of HCWs exposing patients to VZV in the future (Green Book Chapter 34). If a staff member is pregnant or immunosuppressed alternative post exposure prophylaxis can be considered - oral antiviral therapy (or Immunoglobulin if antivirals are contraindicated)
- Where a Health Care worker declines vaccination, the Occupational Health professional should explore their reasons for declining, explaining the benefits of vaccination and the individual's professional duty to protect their patients from infection and encourage them to take up the vaccination. If they still decline, this will be documented in their occupational health file and their manager will be informed of their non- immune status.
- To advise both the HCW and their manager if a period of exclusion from work is required due to a contact with the virus in the seronegative and unvaccinated individual. It is recommended that a HCW diagnosed with chickenpox to remain away from the workplace until there are no new lesions and all lesions have crusted over. It is recommended that a HCW diagnosed with localised herpes zoster on a part of the body that can be covered with a bandage and/or clothing, and who does not work with high-risk patients, should be allowed to continue working if well enough to do so. If the HCW is in contact with high-risk patients, then an individual risk assessment should be carried out.
- liaise with Microbiology if consideration of PEP is required in the event that a HCW has been exposed and due to either being pregnant or Immunosuppressed in line with UKHSA guidance.

- To implement Contact Tracing programmes with Infection Prevention & Control for areas where staff or patients have been diagnosed with VZV accordingly within appropriate time scales (see Quick Reference Guide B) and keep managers informed regarding the outcome of the programmes. To escalate and handover to the line manager where a case is closed if the contact tracing information is not returned two days before the incubation period concludes. To provide case summaries to the Trust on the completion of contact tracing.

2.5. Infection Prevention and Control

IP&C have the responsibility to:

- inform WHWB of any cases of VZV as soon as possible so that staff contact tracing can be commenced if required.
- initiate Contact tracing of any patient contacts from an inpatient case.

3. Processes to be followed.

3.1. Immunisations

All staff appointed to new patient facing posts within the Trust, are assessed, and offered immunisations appropriate to their potential exposures and immunity status to ensure they are protected in accordance with the Green Book Chapter 12.

All existing staff have been offered the appropriate level of immunisation protection according to their job role and have completed the required schedule.

Line Managers are aware of those requiring vaccinations for their role and are provided with sufficient information about the outcome of the immunisation assessment and where necessary facilitate a risk assessment to allow appropriate decisions to be made about potential work restrictions.

3.2. Contact Tracing

On notification of a suspected or confirmed VZV positive case the line manager will notify WHWB and Infection Prevention and Control and ensure staff are wearing the appropriate PPE.

The line manager identifies staff who meet the criteria of close contact using the Chickenpox (VZV) Contact trace form (Trust Docs ID: 10641) and returns to WHWB. Risk assessments are then completed via the individual completing a dedicated contact trace form via the G2 portal. On receipt of the G2 questionnaire, WHWB will assess the individual's level of exposure and immunity status and advise on any requirements for PEP and/or exclusion from work.

WHWB will oversee and chase the return of the individual questionnaires prior to the end of the incubation period. WHWB will escalate to the line manager if information remains outstanding and inform the organisation of cases that are not returned two days before the incubation period concludes.

WHWB will provide case summary reports after the contact tracing event in order to provide the Trust with an overview of the exposure and impact of the contact tracing activity as well as supporting learning and quality improvements.

4. Training & Competencies

All WHWB practitioners who are involved in immunisation policy and procedures receive foundation training, regular updates, supervision and support in line with the National Minimum Standards and Core Curriculum for Immunisation Training for Registered Healthcare Practitioners.

5. Related Documents

- Guideline for the Immunisation of New and Existing Health Care Workers ID No: 8105
- Chicken Pox (VZV) Contact trace form ID No: 10641

6. References

UKHSA: Immunisation against Infectious disease
Immunisation against infectious disease - GOV.UK (www.gov.uk)

The Green Book, Chapter 12 - Immunisation of Healthcare and Laboratory Staff
Immunisation of healthcare and laboratory staff: the green book, chapter 12 - GOV.UK (www.gov.uk)

The Green Book, Chapter 34 – Varicella
Varicella: the green book, chapter 34 - GOV.UK (www.gov.uk)

UKHSA: Post exposure prophylaxis for chickenpox and shingles (updated Jan 2024).
Post exposure prophylaxis for chickenpox and shingles - GOV.UK (www.gov.uk)

NICE Guidelines – Chickenpox (updated 2023)
Scenario: Exposure to chickenpox | Management | Chickenpox | CKS | NICE

7. Clinical Audit Standards

Compliance with the process will be monitored through the following:

Key elements	Process for Monitoring	By Whom (Individual / group /committee)	Responsible Governance Committee /dept	Frequency of monitoring
To ensure all staff who have an uncertain history of VZV have serology testing.	WHWB Audit	WHWB Governance	Workforce Leadership Sub-board/Health and Safety Committee	6 monthly
To ensure all staff who are VZV	WHWB Audit	WHWB Governance	Workforce Leadership	6 monthly

negative are offered the VZV vaccination and if refused this is clearly documented in their OH record.			Sub-board/Health and Safety Committee	

The audit results are to be discussed at relevant WHWB governance meetings to review the results and recommendations for further action. Then sent to Clinical Guidelines Assessment Panel Committee who will ensure that the actions and recommendations are suitable and sufficient.

8. Appendices

There are no appendices for this document.

9. Equality Impact Assessment (EIA)

Type of function or policy	Existing

Division	Corporate	**Department**	Workplace Health and Wellbeing
Name of person completing form	Hilary Winch	**Date**	02/08/2024

Equality Area	Potential Negative Impact	Impact Positive Impact	Which groups are affected	Full Impact Assessment Required YES/NO
Race	Nil	None	Trust	No
Pregnancy & Maternity	Nil	None	Trust	No
Disability	Nil	None	Trust	No
Religion and beliefs	Nil	None	Trust	No
Sex	Nil	None	Trust	No
Gender reassignment	Nil	None	Trust	No
Sexual Orientation	Nil	None	Trust	No
Age	Nil	None	Trust	No
Marriage & Civil Partnership	Nil	None	Trust	No
EDS2 – How does this change impact the Equality and Diversity Strategic plan (contact HR or see EDS2 plan)?				

- **A full assessment will only be required if: The impact is potentially discriminatory under the general equality duty**
- **Any groups of patients/staff/visitors or communities could be potentially disadvantaged by the policy or function/service**
- **The policy or function/service is assessed to be of high significance**

IF IN DOUBT A FULL IMPACT ASSESSMENT FORM IS REQUIRED

The review of the existing policy re-affirms the rights of all groups and clarifies the individual, managerial and organisational responsibilities in line with statutory and best practice guidance.