Doncaster and Bassetlaw Teaching Hospitals NHS Foundation Trust

Chickenpox/Shingles Management Policy

This procedural document supersedes: PAT/IC 15 v.5 – Chickenpox/Shingles Management Policy

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Executive Sponsor(s):	Moira Hardy - Director of Nursing, Midwifery and Allied Health Professionals
Author/reviewer: (this version)	Dr K Agwuh - Consultant Microbiologist
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Target Audience:	Trust Wide

Amendment Form

Version	Date	Brief Summary of Changes	Author
6	3 January 2019	• New Trust Logo added • Added Executive Sponsor on front page • Individual Responsibilities updated • Patient Lacking Capacity Statement added • Update of hyperlinks • Adjustments of appendices/flowcharts • Definitions updated • Reference documents updated	Dr K Agwuh
5	8 January 2016	• Spelling amendments	Dr K Agwuh
4	January 2013	• New style Trust format included. • New paragraph on antiviral management of Shingles. • Additional sections on management of patients with Chickenpox or Shingles. • Flow chart moved to Appendices	Dr K Agwuh
3	December 2009	• New sub title on mode of transmission added – page 5 • Addition of new paragraph to exposure to varicella zoster virus – page 5 • Layout of flow chart amended – page 6 • Layout of flow chart and amendment of is patient immunocompromised – page 7 • Layout of flow chart amended – page 9 • Review of references – page 10	Dr K Agwuh
2	October 2006	• Updated to NHS Foundation setup • Sentence added to aim of policy – page 2 • Layout of flow chart amended – page 3	Infection Prevention and Control Team

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1. INTRODUCTION

Chickenpox (varicella) and shingles (zoster) are caused by varicella zoster virus (VZV). Following an attack of chickenpox, an individual develops immunity to the virus, which however remains viable in a state of latency in nerve cells. When immunity wanes, as occurs in old age and states of immune suppression, reactivation of the virus may be triggered locally in the nerves and skin resulting in an attack of shingles. **Chickenpox is highly infectious** being mainly transmitted by respiratory route, while shingles is much less infectious but direct contact with the vesicle can cause chickenpox in non-immune individuals.

Most people including pregnant women have had chickenpox in childhood and have long-term immunity with demonstrable Varicella Zoster IgG (VZ IgG) antibody in their blood. Among non-immune individuals, immunosuppressed patients, neonates and pregnant women are at increased risk of developing severe life threatening varicella. Exposure to varicella zoster infection cannot always be prevented but steps can be taken to prevent severe illness from developing.

2. PURPOSE

This policy aims to identify individuals who are at risk of developing severe varicella within a time frame after exposure, when intervention measures are most effective in their prevention, and to prevent healthcare workers acquiring or transferring infection to patients. .

3. DUTIES

This policy covers infection prevention and control management issues for Trust staff this includes:-

- Employees
- Volunteers
- Agency/Locum/Bank Staff
- Contractors whilst working on the Trust premises

Each individual member of staff, volunteer or contracted worker within the Trust is responsible for complying with the standards set out in the Policy. They need to be aware of their personal responsibilities in preventing the spread of infection. It is the responsibility of Directors and Managers to ensure compliance with this standard.

4. INDIVIDUAL AND GROUP RESPONSIBILITIES

All healthcare workers are expected to be immune to chickenpox; therefore, those who have no history or are unsure of their chickenpox status should seek advice from the Health & Wellbeing Department. New employees will be screened at pre-employment health assessment, if there is no evidence of immunity, they will be offered vaccination and strongly advised to take this up.

All staff working on Trust premises, outreach clinics and community settings, including Trust employed staff, contractors, agency and locum staff are responsible for adhering to this policy, and for reporting breaches of this policy to the person in charge and to their line manager.

Trust Board
The Board, via the Chief Executive, is ultimately responsible for ensuring that systems are in place that effectively manage the risks associated with Infection Control. Their role is to support the implementation of a Board to Ward culture to support a Zero Tolerance approach to Health Care Associated Infections

Director of Infection Prevention and Control: Is responsible for the development of infection and prevention and control strategies throughout the Trust to ensure best practice.

The Director of Infection Prevention and Control will provide assurance to the board that effective systems are in place.

Infection Prevention and Control Team: is responsible for providing expert advice in accordance with this policy, for supporting staff in its implementation, and assisting with risk assessment where complex decisions are required.

Matrons: are responsible for ensuring implementation within their area by undertaking regular audits in ward rounds activities. Any deficits identified will be addressed to comply with policy.

Ward and Department Managers: are responsible for ensuring implementation within their area, and for ensuring all staff who work within the area adhere to the principles at all times.

Consultant Medical Staff: are responsible for ensuring their junior staff read and understand this policy, and adhere to the principles contained in it at all times.

On-call Managers: are responsible for providing senior and executive leadership to ensure implementation of this policy.

PATIENTS LACKING CAPACITY
Sometimes it will be necessary to provide care and treatment to patients who lack the capacity to make decisions related to the content of this policy. In these instances staff must treat the patient in accordance with the Mental Capacity Act 2005 (MCA 2005).

- A person lacking capacity should not be treated in a manner that can be seen as discriminatory.
- Any act done for, or any decision made on behalf of a patient who lacks capacity must be done, or made, in the persons Best Interest
- Further information can be found in the Mental Capacity Act policy, and the Code of Practice, both available on the intranet.

5. MODE OF TRANSMISSION

Varicella Zoster Virus can be transmitted person to person by the following routes:

- Direct contact with lesions
- Droplet or airborne spread of vesicle fluid
- Secretions of the respiratory tract of chickenpox cases
- Vesicle fluid of patients with herpes zoster

Transmission within hospitals mainly occurs on the hands of health care workers which have been contaminated by contact with colonised or infected patients, contaminated surfaces or fomites.

6. EXPOSURE TO VARICELLA ZOSTER VIRUS

Any potential varicella zoster virus (VZV) within the hospital **must** be reported to the Infection Prevention and Control Team. Advice about management of contacts and staff can be obtained during normal working hours from an Infection Prevention and Control Practitioner, who will discuss with the Consultant Microbiologist. Outside normal working hours contact the local "on-call" manager who will report to the Consultant Microbiologist.

An exposure to VZV is significant if:

i. The index case has chickenpox, disseminated shingles or an exposed localised lesion e.g. ophthalmic zoster. If the index case is immunosuppressed then a local lesion anywhere may be significant as shedding is greater in these.

ii. Exposure occurs between 48 hours before onset of rash to crusting of all lesions (chickenpox) or from day of onset of rash to crusting of all lesions in shingles.

iii. Contact with index case is in the same room e.g. hospital bay for at least 15 minutes or direct face to face contact e.g. while having a conversation for more than about 5 minutes.

7. CONFIRMATION OF CHICKENPOX OR SHINGLES IN INDEX CASE

Whenever exposure to VZV is suspected, the diagnosis of chickenpox or shingles must be confirmed either by the GP or a dermatologist, if index case is within the hospital (staff or in-patient). The diagnosis of these conditions is clinical and they should be differentiated from other types of rash.

8. MANAGEMENT OF PATIENTS WITH CHICKENPOX OR SHINGLES

8.1 Isolation

In acute settings, patients with suspected or confirmed chickenpox must be isolated immediately in a single room. If symptoms develop during an inpatient stay, transfer to a single room should occur promptly. Isolation rooms used require en-suite facilities, and doors must be kept closed.

Patients: - with shingles should be nursed in a single room during their infectious period.

Staff: - contact is kept to a reasonable minimum without compromising patient care.

Relatives / Visitors: - Non immune visitors should be advised and excluded from visiting during the infective period.

8.2 Hand Hygiene

In addition to routine hand hygiene at the point of care, hands should be washed with soap and water after removing personal protective equipment prior to leaving the isolation room. See Hand Hygiene (PAT/IC 5).

Provision must be made for patients to perform hand hygiene after contact with respiratory secretions and contaminated items and should be encouraged to use them at appropriate opportunities.

8.3 Personal Protective Clothing

Health care staff should wear disposable plastic aprons and gloves whenever there is a possibility of direct contact with blood or body fluids, or contact with items in the environment that may be contaminated. In addition the use of gloves and aprons are also required for cleaning. See Standard Infection Prevention and Control Precautions Policy (PAT/IC 19).

8.4 Environmental Cleaning

The environment around a patient may become contaminated. Wards should be cleaned and decontaminated on a regular basis in accordance with Trust policy.

- Isolation rooms or wards, including all equipment and horizontal surfaces, should be cleaned thoroughly following discharge of patients with Herpes Zoster or Shingles
- Bedding and fabric curtains should be sent to the laundry following patient discharge.

8.5 Decontamination of Equipment

Where possible equipment should be disposable or be able to withstand disinfection. Advice relating to specific equipment can be sought from the Trust's Cleaning and Disinfection of ward based equipment (PAT/IC 24). It is best practice to designate equipment to an isolated patient.

8.6 Waste

All waste must be disposed of directly into a foot operated bin, categorised as clinical hazardous waste, in accordance with national regulations and local policy (CORP/HSFS 17). Once waste bags are 2/3 full, the neck should be secured with a tie and the bag removed to the disposal area.

8.7 Linen

All linen should be considered to be contaminated/infected, including bedding and adjacent fabric curtains, and should be managed in accordance with the Trust's Laundry Policy – Bagging Procedure for Linen (PAT/IC 21). Bed linen, towels and clothing must be changed daily.

9. TREATMENT OF HERPES ZOSTER OR SHINGLES

Shingles or Herpes zoster is the reactivation of latent varicella-zoster virus (VZV) within the sensory ganglia. It presents as painful and unilateral vesicular eruption in a dermatomal distribution.

Treatment with antiviral therapy decreases viral shedding thus reducing risk of transmission, promotes rapid healing of the skin eruptions and prevent formation of new lesions. It also reduces the severity and pain associated with the acute neuritis.

Recommended antiviral therapy for all patients greater than 50 years, presenting within 72 hours of clinical symptoms with uncomplicated Herpes zoster include:

- Acyclovir 800mg 5 times daily or,
- Famciclovir 500mg 8 hourly or,
- Valacylovir 1000mg 8 hourly

} **For total of 7 days**

10. TRAINING/SUPPORT

The training requirements of all staff will be identified through a training needs analysis. Role specific education will be delivered by the service lead or nominated person.

Infection Prevention and Control should be included in individual Annual Development Appraisal and any training needs for IPC addressed.

11. MONITORING COMPLIANCE WITH THE PROCEDURAL DOCUMENT

It is the responsibility of all department heads/professional leads to ensure that the staff they manage adhere to this policy. The Infection Prevention and Control Team will review this policy in the following circumstances:-

- When new national or international guidance are received.
- When newly published evidence demonstrates need for change to current practice.
- Every three years routinely.

Incidents where non-compliance with this policy is noted and are considered an actual or potential risk should be documented on an Adverse Incident and near miss report form

Monitoring	Who	Frequency	How Reviewed
Compliance with policy to negate cross-infection	The Infection Prevention and Control Practitioners	Weekly	"Alert organism review" to monitor adherence with the policy.
Audits in ward rounds activities	Matron	Weekly	Deficits identified will be addressed via agree action plan to comply with policy.
Training needs for infection prevention and control	Ward and Department Managers Training and Education Department	Annually	Staffs Professional Development Appraisal. Attendance will be captured by the via ESR system.

12. DEFINITIONS

VZV - varicella zoster virus

BEST INTEREST - There is no single definition of Best Interest. Best Interest is *determined on an individual basis. All factors relevant to the decision must be taken into account, family and friends should be consulted, and the decision should be in the Best interest of the individual.* See S5 of the MCA code of practice for further information.

13. EQUALITY IMPACT ASSESSMENT

An Equality Impact Assessment (EIA) has been conducted on this procedural document in line with the principles of the Equality Analysis Policy (CORP/EMP 27) and the Fair Treatment For All Policy (CORP/EMP 4).

The purpose of the EIA is to minimise and if possible remove any disproportionate impact on employees on the grounds of race, sex, disability, age, sexual orientation or religious belief. No detriment was identified. (See Appendix 5).

14. ASSOCIATED TRUST PROCEDURAL DOCUMENTS

This policy should be read in conjunction with other Trust Policies and protocols for the prevention and control of HCAI in line with the Health and Social Care Action 2008. In particularly:

- Glove Use Policy - CORP/HSFS 13
- Hand Hygiene - PAT/IC 5
- Isolation Policy - PAT/IC 16
- Mental Capacity Act 2005 – Policy and Guidance, including Deprivation of Liberty Safeguards (DoLS) - PAT/PA 19
- Privacy and Dignity Policy - PAT/PA 28
- Standard Infection Prevention and Control Precautions Policy - PAT/IC 19
- Waste Management Policy – CORP/HSFS 17
- Fair Treatment for All Policy – CORP/EMP 4
- Equality Analysis Policy – CORP/EMP 27

15. REFERENCES

Department of Constitutional Affairs Mental Capacity Act (2005): Code of Practice, 2007

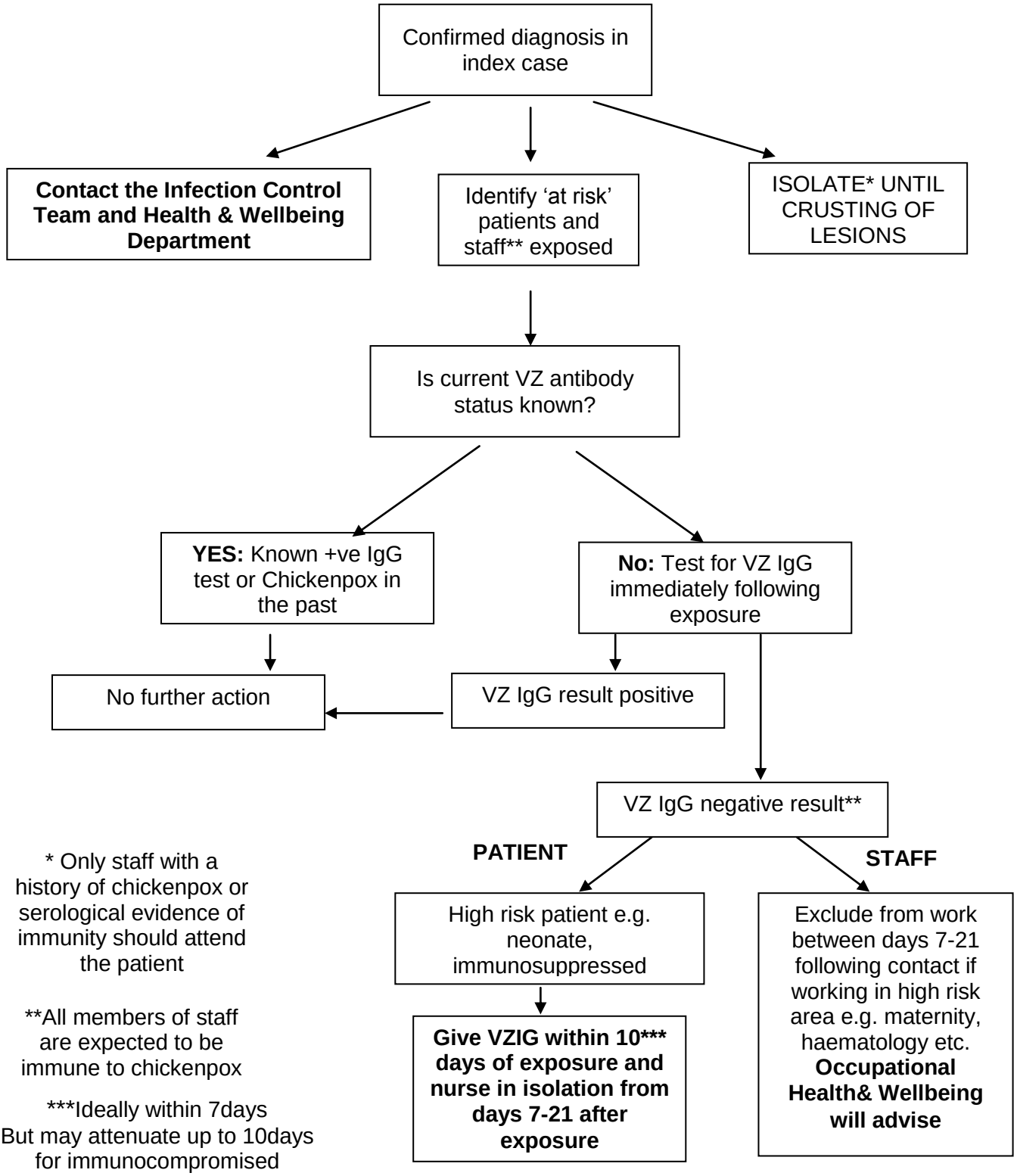
Enders, G. & Miller, E. (2001) Varicella and herpes zoster in pregnancy and the newborn. In: Arvin, A.M & Gershon, A.A (eds.) Varicella-Zoster Virus. Virology and Clinical Management. CAMBRIDGE: Cambridge University Press.

Kumagai, T. (1999) Varicella-Zoster virus-specific cellular immunity in subjects given acyclovir after household chickenpox exposure. *The Journal of Infectious Diseases* **180;** 834-7.

Morgan-Capner, P. & Crowcroft, N. (2000) Guidance on the Management of, and exposure to, rash illness in pregnancy. Report of the PHLS Working Group.

Salisbury, D, Ramsay M and Noakes K. (2013) Varicella in : Immunisation against infectious disease, Dept. of Health, 3rd ed. TSO (The Stationery Office) 421-42.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/456562/Green_Book_Chapter_34_v3_0.pdf

APPENDIX 1 - MANAGEMENT OF VZV OCCURRING ON A WARD



* Only staff with a history of chickenpox or serological evidence of immunity should attend the patient

**All members of staff are expected to be immune to chickenpox

***Ideally within 7days But may attenuate up to 10days for immunocompromised patients

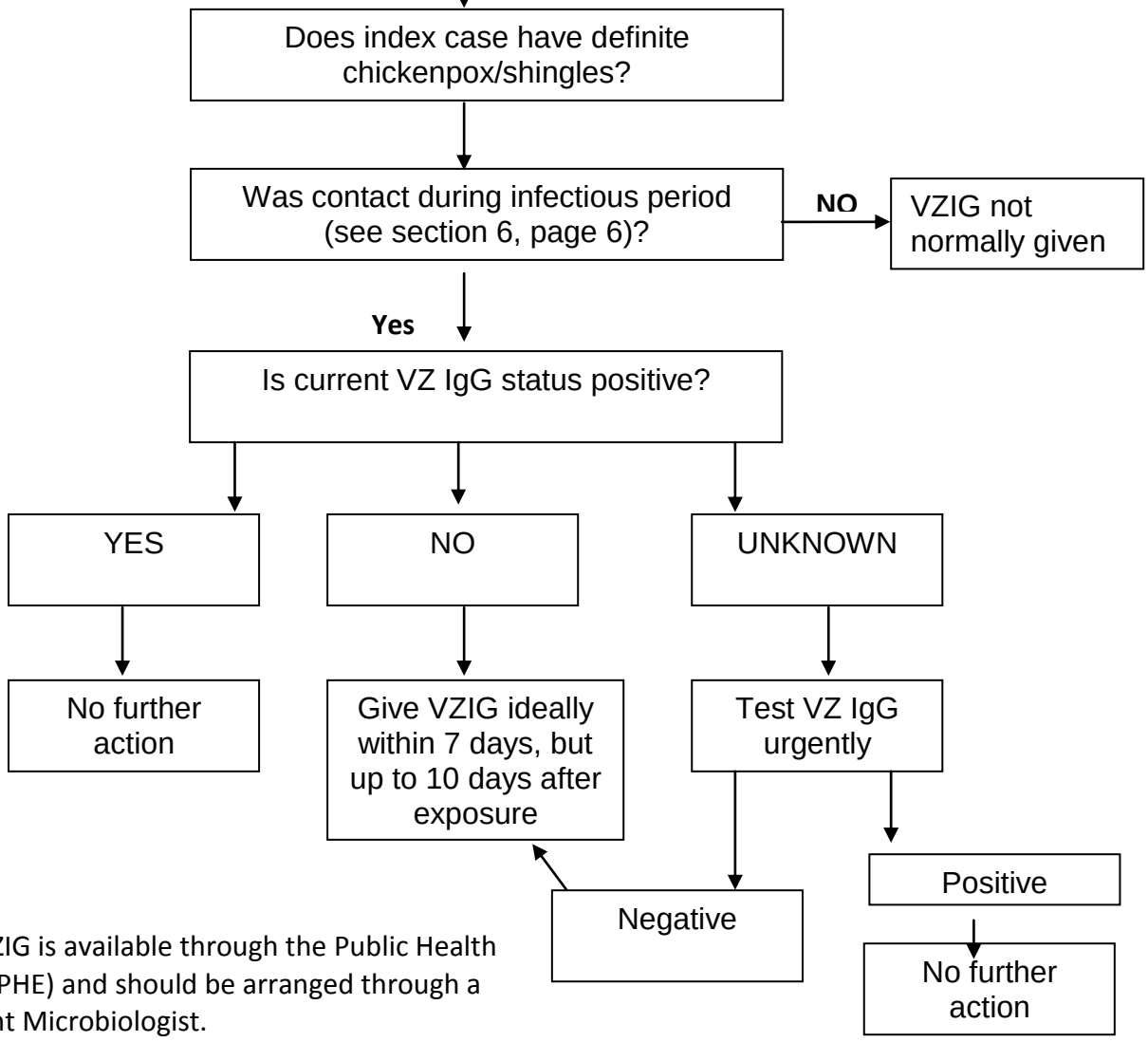
APPENDIX 2 - MANAGEMENT OF VZV EXPOSURE IN IMMUNOSUPPRESSED PATIENTS

All categories of staff must be immune to chickenpox.

Is patient immunocompromised?

e.g.

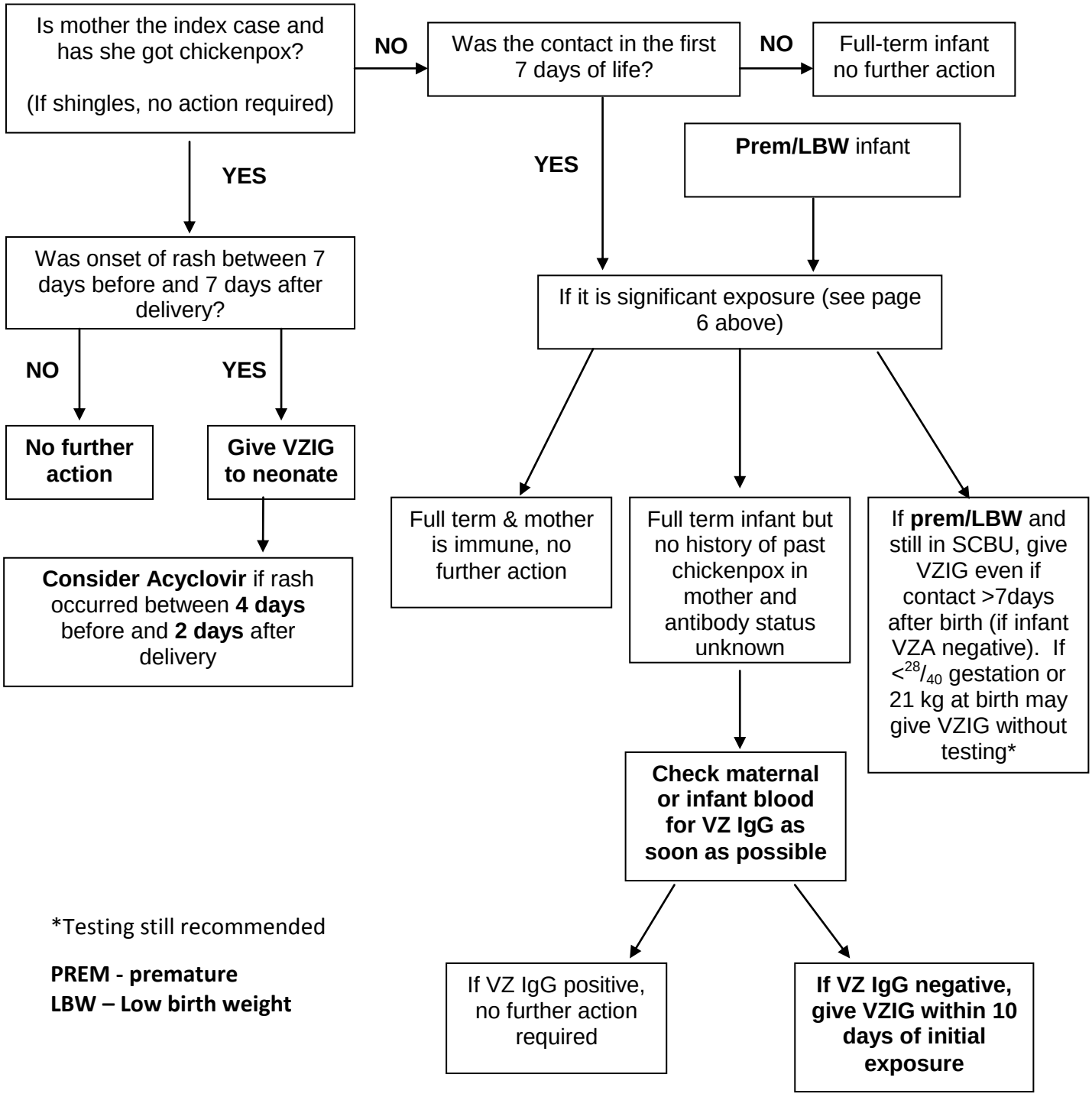
- All types of primary immunodeficiency syndromes
- Having or within 6 months of chemotherapy/generalised radiotherapy for malignant disease.
- On immunosuppressives following solid organ transplant.
- Bone marrow transplant recipients up to 12 months after immunosuppressive treatment.
- Child who in previous 3 months has had prednisolone therapy for over 1 week.
- Adult who in previous 3 months has had 40 mg of prednisolone/day for >1 week.
- Patients on immunosuppresive drugs alone or in combination with lower doses of steroids
- Patients with immunosuppression due to HIV infection



N.B: VZIG is available through the Public Health England (PHE) and should be arranged through a Consultant Microbiologist.

APPENDIX 3 - MANAGEMENT OF VZV EXPOSURE IN NEONATES

All categories of staff attending to neonates must be immune to chickenpox.

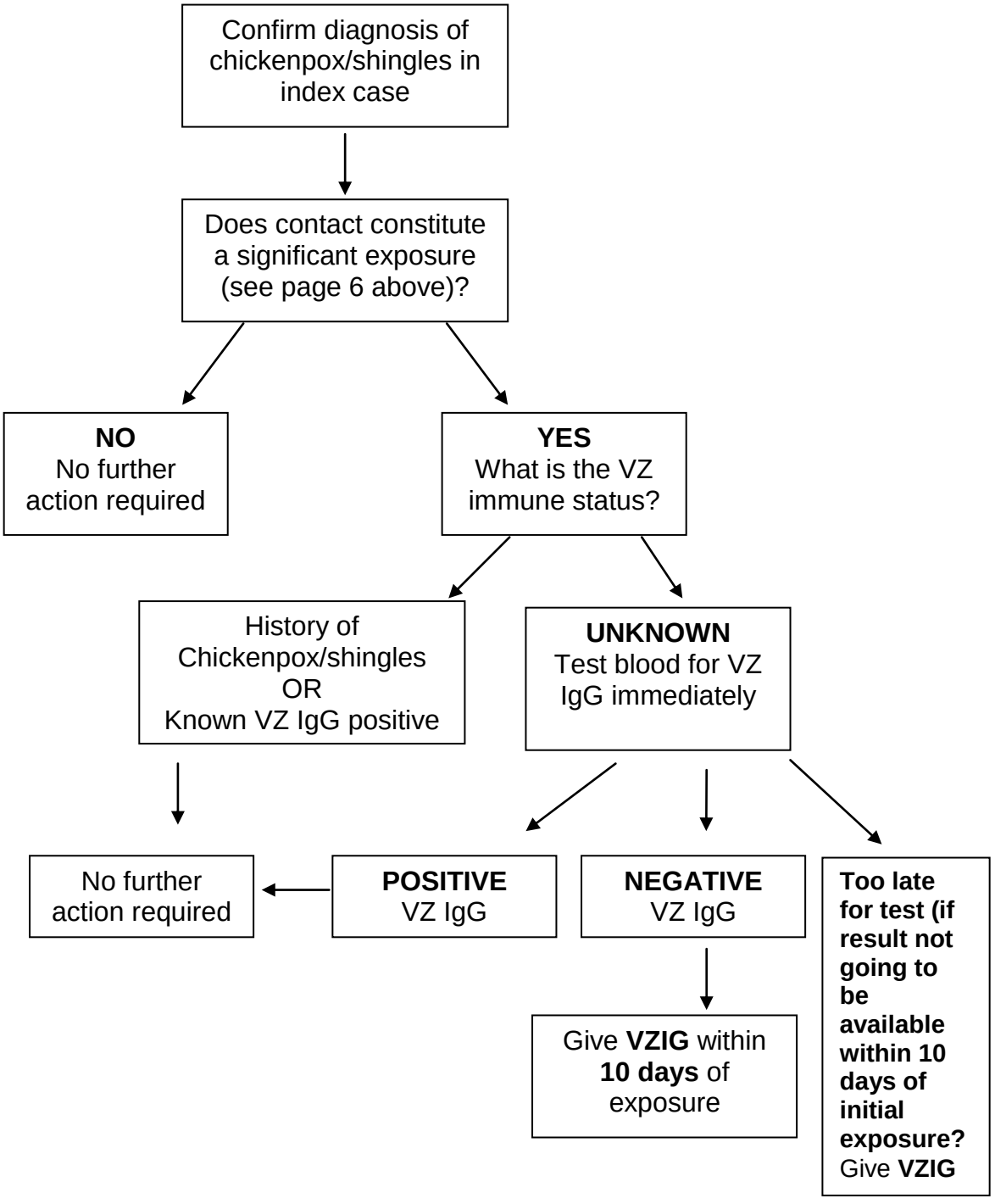


*Testing still recommended

PREM - premature
LBW – Low birth weight

APPENDIX 4 - MANAGEMENT OF VZV EXPOSURE DURING PREGNANCY

All categories of staff must be immune to chickenpox.



APPENDIX 5 – EQUALITY IMPACT ASSESSMENT - PART 1 INITIAL SCREENING

Service/Function/Policy/Project/ Strategy	Division/Department	Assessor (s)	New or Existing Service or Policy?	Date of Assessment
Chickenpox /Shingles Management	Corporate Nursing	Dr Ken Agwuh	Existing policy	November 2018

1) Who is responsible for this policy? Occupational Health and Infection Prevention and Control

2) Describe the purpose of the service / function / policy / project/ strategy? To identify at risk individuals likely to be infected with severe varicella after exposure, thereby preventing spread to at risk HealthCare workers and patients.

3) Are there any associated objectives? Legislation, targets national expectation, standards

4) What factors contribute or detract from achieving intended outcomes?

5) Does the policy have an impact in terms of age, race, disability, gender, gender reassignment, sexual orientation, marriage/civil partnership, maternity/pregnancy and religion/belief? No

- **If yes, please describe current or planned activities to address the impact**

6) Is there any scope for new measures which would promote equality? N/A

7) Are any of the following groups adversely affected by the policy?

Protected Characteristics	Affected?	Impact
a) Age	No	
b) Disability	No	
c) Gender	No	
d) Gender Reassignment	No	
e) Marriage/Civil Partnership	No	
f) Maternity/Pregnancy	No	
g) Race	No	
h) Religion/Belief	No	
i) Sexual Orientation	No	

8) Provide the Equality Rating of the service / function /policy / project / strategy – tick (✓) outcome box

Outcome 1 ✓	Outcome 2	Outcome 3	Outcome 4

If you have rated the policy as having an outcome of 2, 3 or 4, it is necessary to carry out a detailed assessment and complete a* **Detailed Equality Analysis form in Appendix 4

Date for next review: December 2021

Checked by: Beverley Bacon Infection Prevention & Control Practitioner Date: 12/12/2018