Chickenpox/Shingles Management Policy

This procedural document supersedes: PAT/IC 15 v.4 – Chickenpox/Shingles Management Policy

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<table>
<thead>
<tr>
<th>Author/reviewer: (this version)</th>
<th>Dr K Agwuh - Consultant Microbiologist</th>
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<tbody>
<tr>
<td>Date written/revised:</td>
<td>December 2015</td>
</tr>
<tr>
<td>Approved by:</td>
<td>Infection Prevention and Control Committee</td>
</tr>
<tr>
<td>Date of approval:</td>
<td>17 December 2015</td>
</tr>
<tr>
<td>Date issued:</td>
<td>8 January 2016</td>
</tr>
<tr>
<td>Next review date:</td>
<td>December 2018</td>
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<tr>
<td>Target Audience:</td>
<td>Trust Wide</td>
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# Amendment Form

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<tr>
<th>Version</th>
<th>Date</th>
<th>Brief Summary of Changes</th>
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<tr>
<td>5</td>
<td>8 January 2016</td>
<td>• Spelling amendments</td>
<td>Dr K Agwuh</td>
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<td>4</td>
<td>January 2013</td>
<td>• New style Trust format included.</td>
<td>Dr K Agwuh</td>
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<td>• New paragraph on antiviral management of Shingles.</td>
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<td>• Additional sections on management of patients with Chickenpox or Shingles.</td>
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<td>• Flow chart moved to Appendices</td>
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<tr>
<td>3</td>
<td>December 2009</td>
<td>• New sub title on mode of transmission added – page 5</td>
<td>Dr K Agwuh</td>
</tr>
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<td>• Addition of new paragraph to exposure to varicella zoster virus – page 5</td>
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<td>• Layout of flow chart amended – page 6</td>
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<td>• Layout of flow chart and amendment of is patient immunocompromised – page 7</td>
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<td>• Layout of flow chart amended – page 9</td>
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<td>• Review of references – page 10</td>
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<td>October 2006</td>
<td>• Updated to NHS Foundation setup</td>
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<td>• Sentence added to aim of policy – page 2</td>
<td>Prevention and</td>
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<td></td>
<td>• Layout of flow chart amended – page 3</td>
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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 Occupational Health 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.

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 Nurse, 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. Once outside the isolation room repeat hand hygiene. 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 when 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 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 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 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 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 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

Staff will receive instructions and direction regarding infection prevention and control practice and information from a number of sources:-

- Trust Induction
- Trust Policies and Procedures available on the intranet
- Ward/departmental/line managers
- As part of the mandatory infection control education sessions that Trust staff attend.
- Infection Prevention and Control Educational displays/ posters
- Trust Infection Prevention and Control Team
- Ward link practitioners

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

<table>
<thead>
<tr>
<th>Monitoring</th>
<th>Who</th>
<th>Frequency</th>
<th>How Reviewed</th>
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</thead>
<tbody>
<tr>
<td>Compliance with policy to negate cross-infection</td>
<td>The Infection Prevention and Control Practitioners</td>
<td>Weekly</td>
<td>“Alert organism review” to monitor adherence with the policy.</td>
</tr>
<tr>
<td>Audits in ward rounds activities</td>
<td>Matron</td>
<td>Weekly</td>
<td>Deficits identified will be addressed via agree action plan to comply with policy.</td>
</tr>
<tr>
<td>Training needs for infection prevention and control</td>
<td>Ward and Department Managers&lt;br&gt;Training and Education Department</td>
<td>Annually</td>
<td>Staffs Professional Development Appraisal. Attendance will be captured by the via OLM system.</td>
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### 12. DEFINITIONS

**VZV** - varicella zoster virus

### 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:

- Standard Infection Prevention and Control Precautions Policy - PAT/IC 19
- Hand Hygiene - PAT/IC 5
- Glove Use Policy - CORP/HSFS 13
- 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
15. REFERENCES


**APPENDIX 1 - MANAGEMENT OF VZV OCCURRING ON A WARD**

Confirmed diagnosis in index case

- **Contact the Infection Control Team and Occupational Health Department**
- **Identify ‘at risk’ patients and staff** exposed
- **ISOLATE* UNTIL CRUSTING OF LESIONS**

Is current VZ antibody status known?

- **YES:** Known +ve IgG test or Chickenpox in the past
  - No further action
- **No:** Test for VZ IgG immediately following exposure
  - VZ IgG result positive
    - VZ IgG negative result**
      - **PATIENT**
        - High risk patient e.g. neonate, immunosuppressed
          - Give VZIG within 10*** days of exposure and nurse in isolation from days 7-21 after exposure
      - **STAFF**
        - Exclude from work between days 7-21 following contact if working in high risk area e.g. maternity, haematology etc.
        - **Occupational Health will advise**

* 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 7 days But may attenuate up to 10 days 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.
- On immunosuppressives following 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 lower doses of steroids in combination with cytotoxic drugs.

Does index case have definite chickenpox/shingles?

Was contact during infectious period (see page 1)?

Is current VZ IgG status positive?

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**N.B.:** VZIG is available through the Health Protection Agency (HPA) 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.

Is mother the index case and has she got chickenpox?

(If shingles, no action required)

- NO
  - Was the contact in the first 7 days of life?
    - NO
      - Full-term infant no further action
    - YES
      - Prem/LBW infant

- YES
  - Was onset of rash between 7 days before and 7 days after delivery?
    - NO
      - No further action
    - YES
      - Give VZIG to neonate

Consider Acyclovir if rash occurred between 4 days before and 2 days after delivery

**Testing still recommended**

If VZ IgG negative, give VZIG within 10 days of initial exposure

If VZ IgG positive, no further action required
APPENDIX 4 - MANAGEMENT OF VZV EXPOSURE DURING PREGNANCY

All categories of staff must be immune to chickenpox.

Confirm diagnosis of chickenpox/shingles in index case

Does contact constitute a significant exposure (see page 2 above)?

NO
No further action required

YES
What is the VZ immune status?

UNKNOWN
Test blood for VZ IgG immediately

History of Chickenpox/shingles OR Known VZ IgG positive

No further action required

POSITIVE VZ IgG

NEGATIVE VZ IgG

Too late for test? Give VZIG

Give VZIG within 10 days of exposure
## APPENDIX 5 – EQUALITY IMPACT ASSESSMENT - PART 1 INITIAL SCREENING

<table>
<thead>
<tr>
<th>Service/Function/Policy/Project/Strategy</th>
<th>CSU/Executive Directorate and Department</th>
<th>Assessor(s)</th>
<th>New or Existing Service or Policy?</th>
<th>Date of Assessment</th>
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<tbody>
<tr>
<td>Chickenpox /Shingles Management</td>
<td>Corporate Nursing</td>
<td>Dr Ken Agwuh</td>
<td>Existing policy</td>
<td>17/12/2015</td>
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</table>

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

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?

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<tr>
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<th>Affected?</th>
<th>Impact</th>
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<tbody>
<tr>
<td>a) Age</td>
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</tr>
<tr>
<td>b) Disability</td>
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<td></td>
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<tr>
<td>c) Gender</td>
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<td></td>
</tr>
<tr>
<td>d) Gender Reassignment</td>
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<td></td>
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<tr>
<td>e) Marriage/Civil Partnership</td>
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<td>f) Maternity/Pregnancy</td>
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<td>g) Race</td>
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<td></td>
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<tr>
<td>h) Religion/Belief</td>
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<tr>
<td>i) Sexual Orientation</td>
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8) Provide the Equality Rating of the service / function /policy / project / strategy – tick (✓) outcome box

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<tr>
<th>Outcome 1 ✓</th>
<th>Outcome 2</th>
<th>Outcome 3</th>
<th>Outcome 4</th>
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*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 2018

Checked by: Dr Ken Agwuh, Consultant Microbiologist & DIPC Date: 17/12/2015