Chickenpox Procedure
(IPC Policy Manual)
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Home Webpage
Flowchart 1:
Management of Patient with Suspected or Confirmed Chickenpox

Chickenpox confirmed/suspected

Isolate immediately (refer to Isolation Procedure)

Inform IPCT
01302 796237

Complete appendix 21 & 22

Send copy (appendix 21) to IPCT
Send copy (appendix 22) to the OHP

Are patients (listed on appendix 21) immune?

Yes – no further action

No!

Obtain blood sample for VZ IgG within 7 days of exposure

Positive VZV result

No further action

Negative VZV result

1. Isolate from day 7-21 after exposure
2. If high risk, discuss with Consultant Microbiologist

Part 1

Part 2
Flowchart 2:
Management of Staff Member in a Care Environment with Suspected or Confirmed Chickenpox

Suspected contact or exposure to chickenpox

Inform Line Manager for urgent referral to OHP

Confirmed chickenpox (diagnosed by medical practitioner)

Refrain from work and inform Line Manager

Line Manager to inform IPCT
01302 796237

Send copy (appendix 21) to IPCT

Complete appendix 21 & 22

Send copy (appendix 22) to the OHP

OHP to manage staff contacts

Continue assessment using Part 2 of Flowchart 1
1. INTRODUCTION

Chickenpox is also known as varicella. It is an acute, highly transmissible infectious disease caused by the varicella zoster virus (VZV).

The condition is common in childhood and 90% of adults who grow up in the United Kingdom are immune to chickenpox. Complications are more common in newborns and adults than in infants and school children.

Chickenpox may initially begin with flu-like symptoms e.g. aching limbs, headache, raised temperature. Clusters of vesicular spots (blisters) appear over 3-5 days. This is also known as cropping. The rash starts as small, red, itchy spots which develop a blister on top and become intensely itchy after about 12-14 hours. The rash usually starts on the face and scalp and then spreads to the trunk, abdomen and limbs. It is possible to be infected but show no symptoms. Diagnosis is made on clinical examination. Swabs/specimens are not normally required.

Following primary infection the virus stays in the body in a dormant state in the nervous system and reactivation of the virus causes shingles (Herpes Zoster). People with shingles are also contagious and contact with the virus from the shingles lesions can result in chickenpox infection in non-immune people e.g. people who have never had chickenpox. It is not possible to develop shingles from exposure to a person with chickenpox.

2. PROCEDURE

2.1 Management of Patients and Staff in Care Settings

If chickenpox is suspected or confirmed in a healthcare worker, working in a care/inpatient environment, contact tracing for both patients and staff must be undertaken to identify any susceptible individuals. Appendix 21 and appendix 22 must be completed by the clinical area staff as a priority and the process in the following flow charts followed:

Appendix 21 and 22 referenced in both flowcharts can be accessed via this link:


Completed copies of these forms must be submitted to the Infection Prevention and Control team (IPCT) or Occupational Health provider (OHP) as directed in the following flow charts and as soon as possible to ensure serology testing is carried out in a timely manner.

Symptomatic patients must be isolated in single rooms with the door closed until cropping ceases and all spots/vesicles are dry/crusted. Isolation precautions may be extended in some circumstances. The IPCT will advise if this is required.

Non-immune staff must not care for symptomatic patients or those who may be incubating the infection.
Staff must adhere to and follow the guidance in the Trust's Isolation Procedure. If several patients have chickenpox, cohort nursing may be undertaken on the advice of the IPCT.

Once isolation precautions have been discontinued terminal cleaning must be undertaken and appendix 10, accessed via this link, completed.


Patients can be discharged to their own home if medically fit but should be advised to avoid contact with non-immune people until their spots/vesicles are dried and crusted.

If a symptomatic patient requires admission/transfer to another healthcare facility or needs to attend an appointment that cannot be deferred, then the receiving unit and transportation staff must be informed prior to the transfer so that the required precautions can be implemented. Patients must not attend social day care facilities until all the the spots/vesicles have dried and crusted.

The occupational health provider will assess all new staff who have contact with patients for history of chickenpox exposure and update records. Varicella vaccine is recommended for non-immune healthcare workers who have direct patient contact to protect vulnerable patients from acquiring chickenpox from an infected member of staff (DoH, 2003).

If staff are symptomatic then they must refrain from work until all the spots/vesicles have dried and crusted.

If non-immune staff are aware that they have had significant exposure to chickenpox outside of the Trust, their manager should contact the OHP at the earliest opportunity for advice, ideally prior to the staff member coming to work.

### 2.2 Visitor Contacts

Non-immune visitors should be advised about the risks of visiting clinical areas and discouraged from visiting if possible. They should refrain from visiting if they develop flu-like symptoms and a rash.

### 2.3 General Information (Criteria)

<table>
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<tr>
<th>Diagnosis</th>
<th>Diagnosis of chickenpox must be confirmed by a medical practitioner</th>
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<tbody>
<tr>
<td>Incubation Period</td>
<td>10 - 21 days</td>
</tr>
<tr>
<td>Infectious Period</td>
<td>1 - 2 days before the onset of the rash until the blisters are dry and crusted</td>
</tr>
<tr>
<td></td>
<td>In immunosuppressed people this may be longer and susceptible individuals should be considered infectious for 10 - 21 days</td>
</tr>
<tr>
<td></td>
<td>Chickenpox is highly contagious</td>
</tr>
<tr>
<td>Mode of Transmission</td>
<td>Airborne via respiratory secretions</td>
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### Significant Exposure Criteria

Non-immune individuals who have had:

- Non-close contact in the same room as a person with chickenpox (e.g. in a house, classroom, hospital bay/dayroom) for 15 minutes or more
- Close contact (more than 5 minutes) with a person with chickenpox
- Contact with disseminated shingles and exposed lesions e.g. ophthalmic shingles
- Contact with immunosuppressed patients with shingles

### Susceptible People

- Most children under 10 years old
- Non-immune individuals

### People at Increased (High) Risk of Severe Disease

- Pregnant women
- Immunocompromised individuals (e.g. receiving chemotherapy or treatment within the last 6 months, bone or organ transplantation in the last 6 months, steroid therapy and symptomatic HIV infection)

### Complications

- Secondary bacterial skin infection
- Pneumonia
- Encephalitis

### Immunity

- Generally life-long
- If individuals are uncertain of their VZV status blood tests can determine immunity

### Vaccination

- The VZV vaccine may be effective in preventing chickenpox infection if administered within 3 days of exposure

### Treatment

- Treatment is aimed at symptom relief
- Antiviral treatment started within 24 hours of onset of rash may reduce the duration and severity of symptoms
- People at high risk of developing serious complications can be given immunoglobulin and/or acyclovir to prevent severe complications
- VZIG must be given within 72 hours of exposure but can be effective up to 10 days following exposure
- Advice should be sought from the Consultant Microbiologist

### 3. DEFINITIONS/EXPLANATIONS OF TERMS USED

**Varicella** – chickenpox

**Vesicles** – small blisters containing clear fluid

**Varicella Zoster Virus (VZV)** – a herpes virus that causes chickenpox and shingles

**Herpes Zoster** – shingles
Varicella Zoster Immunoglobulin (VZIG) – medication containing varicella zoster antibodies used to protect against infection

Prophylaxis – treatment given to prevent disease

4. RESPONSIBILITIES, ACCOUNTABILITIES AND DUTIES

4.1 Refer to section 4 of the Infection Prevention and Control Manual | RDaSH NHS Foundation Trust

4.2 Occupational Health Provider

The Occupational Health Provider is responsible for;

- Assessing all new staff who have contact with patients to determine a history of chickenpox, positive varicella serology or history of two doses of VZV.
- Immunisation history record keeping.
- Testing for immunity to varicella and vaccinating non-immune staff unless contra-indicated.
- Offering evidence based advice to manage staff with chickenpox in the workplace.

Giving advice to non-immune staff regarding vaccination, potential risks and restrictions on duty.

5. LINKS TO ASSOCIATED POLICIES/DOCUMENTS

Infection Prevention and Control Manual | RDaSH NHS Foundation Trust

6. REFERENCES/FURTHER READING


Department of Health (2003) Chickenpox (Varicella) Immunisation for Health Care Workers
7. APPENDICES

To access the following Appendices please see IPC Manual homepage

Appendix 21 – Chickenpox/shingles Patient Contact List
Appendix 22 – Chickenpox/shingles Staff Contact List
Appendix 10 – Terminal Clean Procedure