SOP Objective

To ensure that Healthcare Workers (HCWs) are aware of the actions and precautions necessary to minimise the risk of outbreaks and cross-infection, and the importance of diagnosing patients’ clinical conditions promptly.

This SOP applies to all staff employed by NHS Greater Glasgow & Clyde and locum staff on fixed term contracts and volunteer staff.

KEY CHANGES FROM THE PREVIOUS VERSION OF THIS SOP

- Change period of communicability after starting antibiotics from 5 days to 48 hours
- Additional information added to ‘Clinical Condition’ in Section 2. General Information on Whooping Cough
- Updated wording in Section 3. Transmission Based Precautions (TBPs) for patients with confirmed or suspected Whooping Cough
- Updated wording in appendix 1.

Document Control Summary

<table>
<thead>
<tr>
<th>Approved by and date</th>
<th>Board Infection Control Committee 03 October 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Publication</td>
<td>03 October 2016</td>
</tr>
<tr>
<td>Developed by</td>
<td>Infection Prevention and Control Policy/SOP Sub-Group</td>
</tr>
<tr>
<td>Related Documents</td>
<td>National IPC Manual, NHSGGC Hand Hygiene Policy, NHSGGC Laundry Policy, NHSGGC SOP Cleaning of Near Patient Equipment, NHSGGC SOP Terminal Clean of Isolation Rooms, NHSGGC SOP Twice Daily Clean of Isolation Rooms</td>
</tr>
<tr>
<td>Implications of Race Equality and other diversity duties for this document</td>
<td>This SOP must be implemented fairly and without prejudice whether on the grounds of race, gender, disability, sexual orientation or religion.</td>
</tr>
<tr>
<td>Lead Manager</td>
<td>Board Infection Control Manager</td>
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The most up-to-date version of this SOP can be viewed at the following [website](http://www.nhsggc.org.uk/your-health/public-health/infection-prevention-and-contol)
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1. Responsibilities

Healthcare Workers (HCWs) must:

- Follow this SOP.
- Inform a member of the Infection Prevention and Control Team (IPCT) if this SOP cannot be followed.

Clinicians and Microbiologists must:

- Clinicians must notify NHSGGC Public Health Protection Unit (PHPU) Tel: 0141 201 4917 if they diagnose a clinical case of whooping cough.
- Laboratory staff must notify NHSGGC PHPU Tel: 0141 201 4917 if they make a laboratory diagnosis of whooping cough.

Managers must:

- Ensure that staff are aware of the contents of this SOP.
- Support HCWs and IPCTs in following this SOP.

Infection Prevention and Control Teams (IPCTs) must:

- Keep this SOP up-to-date.
- Provide education opportunities on this SOP.

Occupational Health Service (OHS) must:

- Support the Incident Management Team (IMT) with necessary investigations.
- Provide staff with advice as appropriate.

The most up-to-date version of this SOP can be viewed at the following website:
## General information on Whooping Cough

<table>
<thead>
<tr>
<th><strong>Communicable Disease / Alert Organism</strong></th>
<th>Whooping cough or Pertussis is caused by a gram negative bacillus <em>Bordetella pertussis</em>. Incidence is higher in infants less than 6 months of age. Neither infection nor immunisation provides lifelong immunity.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clinical condition</strong></td>
<td>Begins with a mild upper respiratory tract infection which develops into a cough. The cough can become paroxysmal and is characterised by inspiratory whoop. Fever is absent or minimal. Classic infection can last typically 6-10 weeks in children. Severity of disease is closely associated with age. Infants under one year have the highest mortality rate and are more likely to be hospitalised. They are also most likely to suffer complications. These can include; bronchopneumonia and cerebral complications such as seizures, cranial nerve abnormalities and encephalitis.</td>
</tr>
<tr>
<td><strong>Mode of spread</strong></td>
<td>Droplet transmission: Close direct contact, (a distance of less than 1m) with an infected person via aerosolised droplets from the respiratory tract.</td>
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<tr>
<td><strong>Incubation period</strong></td>
<td>Usually 6 to 10 days with a range of 5 to 21 days.</td>
</tr>
<tr>
<td><strong>Notifiable Disease</strong></td>
<td>Yes. Cases should be notified by medical staff to: PHPU Consultant in Public Health Medicine (CPHM) via Switchboard. Gartnavel Royal Hospital, West House, 1055 Great Western Road, Glasgow, G12 0XH. If suspected, clinicians should seek advice from a paediatric / adult ID physician.</td>
</tr>
<tr>
<td><strong>Period of communicability</strong></td>
<td>A case is considered infectious from the onset of symptoms until 48 hours of antibiotic treatment has been completed, or for 21 days from onset of symptoms if they have not received appropriate antibiotic treatment (HPA 2012).</td>
</tr>
<tr>
<td><strong>Persons most at risk</strong></td>
<td>Unimmunised infants under one-year have the highest mortality rate.</td>
</tr>
</tbody>
</table>
3. Transmission Based Precautions (TBPs) for patients with confirmed or suspected Whooping Cough

<table>
<thead>
<tr>
<th><strong>Accommodation</strong></th>
<th>Single room until after 5 days of appropriate antibiotic treatment or 21 days from onset of symptoms if appropriate antibiotic treatment has not been completed. TBPs should be implemented (respiratory and contact).</th>
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<tbody>
<tr>
<td><strong>Care Plan</strong></td>
<td>No.</td>
</tr>
<tr>
<td><strong>Clinical/ Healthcare Waste</strong></td>
<td>All non-sharps waste from patients with whooping cough should be designated as clinical healthcare waste and placed in an orange bag. See NHSGGC Waste Management Policy</td>
</tr>
<tr>
<td><strong>Contacts</strong></td>
<td>Please refer to Appendix 1. Designated clinician will assess the need for contact tracing and inform Public Health.</td>
</tr>
<tr>
<td><strong>Domestic advice</strong></td>
<td>Advise general services / domestic assistants to clean a single room last following SOP Twice Daily Clean of Isolation Rooms.</td>
</tr>
<tr>
<td><strong>Equipment</strong></td>
<td>Where practicable, the patient should be designated their own equipment. See SOP Cleaning of Near Patient Equipment.</td>
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<tr>
<td><strong>Exposures</strong></td>
<td>Prevent further cases by isolating all patients suspected or diagnosed with whooping cough in a single room and apply TBPs (respiratory and contact).</td>
</tr>
<tr>
<td><strong>Hand hygiene</strong></td>
<td>Hands must be decontaminated before and after each direct patient contact, after contact with the environment, after exposure to body fluids, e.g. respiratory droplets, and before any aseptic tasks. Patients should be encouraged to carry out thorough hand hygiene. See NHSGGC Hand Hygiene Policy.</td>
</tr>
<tr>
<td><strong>Last offices</strong></td>
<td>No special requirements. See NHSGGC Last Offices SOP</td>
</tr>
<tr>
<td><strong>Linen</strong></td>
<td>The risk from used linen is minimal however to prevent contamination of the environment and to comply with isolation precautions all used linen should be placed into a water soluble alginate bag then into a clear bag and then into a laundry bag. Bed linen and patient clothing should be changed daily.</td>
</tr>
<tr>
<td><strong>Moving between wards, hospitals and</strong></td>
<td>if deemed necessary by the clinical team they should inform the receiving department before transfer, the need for special</td>
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</tbody>
</table>
### departments (including theatres)

Precautions. Staff transferring the patient do not need to wear protective clothing (PPE) during the transfer but should decontaminate hands once transfer is complete. Staff should encourage cough etiquette by the patient during transfer.

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<thead>
<tr>
<th>Notice for the door</th>
<th>Yes.</th>
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</table>

### Outbreak

See [NHSGGC Outbreak SOP](http://www.nhsggc.org.uk/your-health/public-health/infection-prevention-and-contol). If two or more confirmed or epidemiologically linked cases of pertussis occur in a healthcare setting, an outbreak control team (OCT) should be convened.

<table>
<thead>
<tr>
<th>Patient clothing</th>
<th>No special precautions.</th>
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</table>

### Personal Protective Equipment (PPE)

Yellow disposable aprons should be worn for direct contact with the patient and their immediate surroundings. Gloves should be worn to prevent direct contact with respiratory secretions. Perform hand hygiene after removing PPE. Face mask:

Refer to Appendix 11 in National IPC Manual

### Precautions required until

A case is considered infectious from the onset of symptoms until 48 hours days of antibiotic treatment has been completed or for 21 days from onset of symptoms if they have not received appropriate antibiotic treatment (HPA 2012).

<table>
<thead>
<tr>
<th>Procedure restrictions</th>
<th>None.</th>
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</table>

### Screening on Admission

Yes, if whooping cough suspected.

### Screening Staff

All staff should be aware of their immune status, Those who are unsure of their immune status should contact the OHS for advice.

### Specimen required

A nasopharyngeal / pernasal swab should be taken to confirm whooping cough. Rapid results are achieved by PCR but culture can also be carried out. Serology (a clotted blood sample) can also be performed.

The most up-to-date version of this SOP can be viewed at the following [website](http://www.nhsggc.org.uk/your-health/public-health/infection-prevention-and-contol).
### STANDARD OPERATING PROCEDURE (SOP)
**WHOOPING COUGH (PERTUSSIS)**
**TRANSMISSION BASED PRECAUTIONS**

<table>
<thead>
<tr>
<th><strong>Specimens marked as “Danger of Infection”</strong></th>
<th>No.</th>
</tr>
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</table>

| **Terminal Clean of Room** | As per [SOP Terminal Clean of Isolation Rooms](http://www.nhsggc.org.uk/your-health/public-health/infection-prevention-and-contol). |


| **Visitors** | Only parents or close relatives who have been immunised or given chemoprophylaxis may visit. Interpreters / advocates regularly involved with the patient and their family must also be considered in this category. |
The most up-to-date version of this SOP can be viewed at the following website:

4. Evidence Base

PHE (2016) Guidelines for the Public Health Management of Pertussis
http://www.hpa.org.uk/webc/hpawebfile/hpaweb_c/1287142671506


NHSGGC Antibiotic Policies (Clinical Information / Clinical Guidelines / Clinical Topic / Infections & Microbiology)
http://www.staffnet.ggc.scot.nhs.uk/Clinical%20Info/Pages/default.aspx

Immunisation against infectious disease ‘The Green Book’
Appendix 1 - Management of contacts

Management of contacts of a clinically suspected or laboratory confirmed case of pertussis (presumption that the initial case has been commenced on treatment)

One or more case(s) of clinically suspected* or laboratory confirmed* pertussis

Has the onset of the disease occurred within the past 21 days?

YES

Designated clinician responsible for patient will assess need for contact tracing and contact Public Heath

NO

No further action required

NO

Identify if any member of the household is defined as a ‘vulnerable close household contacts’*

YES

If a vulnerable close household contact is identified, offer treatment to ALL household contacts (vulnerable and close). Please follow green book guidelines for treatment regime.
*Definitions:

**Suspect case:**
An acute cough lasting 14 days (with at least one of the following symptoms: posttussive vomiting, apnoea or whoop), or a paroxysmal cough lasting 7 days.

**Confirmed case:**
A symptomatic case with positive laboratory result by culture, PCR or serology where available.

**‘Close household contacts’**: Person living within the same household or institutional setting (e.g. ward, residential home).

**‘Vulnerable close household contact’** includes:

- Newborn infants born to symptomatic mothers.
- Infants under one year who have received less than three doses of DTaP/IPV/Hib.
- Unimmunised and partially immunised infants or children up to ten years.
- Women >32 weeks pregnant.
- Adults who work in a healthcare, social care or childcare facility.
- Immunocompromised individuals (as defined in the Green Book).
- Individuals with other chronic illnesses, e.g. asthma, congenital heart disease.