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

- Updated links for linen management and last offices
- Rewording of linen management section
- NIPCM link added to evidence base section
- Updated link to PHE / CDC isolation guidelines

Document Control Summary

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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.
### 2. General information on Whooping Cough

| **Communicable Disease / Alert Organism** | Whooping cough or Pertussis is caused by a gram negative bacillus *Bordetella pertussis*. Incidence is higher in infants less than 6 months of age. Neither infection nor immunisation provides lifelong immunity. |
| **Clinical condition** | Pertussis usually starts with cold-like symptoms sometimes with a mild cough and fever. This characteristically develops into bouts of paroxysmal cough with associated apnoea and cyanosis with vomiting. Infants rarely whoop. 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. Infection is generally milder in teenagers and adults. |
| **Mode of spread** | Droplet transmission: Close direct contact, (a distance of less than 1m) with an infected person via aerosolised droplets from the respiratory tract. |
| **Incubation period** | Usually 6 to 10 days with a range of 5 to 21 days. |
| **Notifiable Disease** | Yes. Cases should be notified on clinical suspicion by medical staff to: Public Health Protection Unit)in hours on 0141 201 4917; out of hours via Switchboard. Clinicians should not wait for laboratory confirmation before notifying If suspected, clinicians should seek advice from a paediatric / adult ID physician. |
| **Period of communicability** | 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 (PHE 2018). |
| **Persons most at risk** | Infants under one year old who have not been immunised have the highest mortality rate. |
### 3. Transmission Based Precautions (TBPs) for patients with confirmed or suspected Whooping Cough

| **Accommodation** | Single room until 48 hours 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). |
| **Care Checklist** | Yes |
| **Clinical/ Healthcare Waste** | 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 |
| **Contacts** | Please refer to Appendix 1. Designated clinician will discuss contact tracing with Public Health. |
| **Domestic advice** | Domestic staff must follow the NHSGGC SOP for Twice Daily Clean of Isolation Rooms. Cleans should be undertaken at least four hours apart. Cleaning of the room should also be undertaken following each aerosol generating procedure. |
| **Equipment** | Where practicable, the patient should be designated their own equipment. See NHS GCC Decontamination SOP |
| **Exposures** | Prevent further cases by isolating all patients suspected or diagnosed with whooping cough in a single room and apply TBPs (droplet and contact). |
| **Hand hygiene** | Hand hygiene is the single most important measure to prevent cross-infection with Whooping Cough. Hands must be decontaminated before and after each direct patient contact, after contact with the environment, after exposure to body fluids and before any aseptic tasks. Patients should be encouraged to carry out thorough hand hygiene. Please refer to NHSGGC Hand Hygiene SOP |
| **Last offices** | See National Guidance for Last Offices |
| **Linen** | Treat used linen as soiled/ infected, i.e. place in an a water soluble bag, then a secondary bag, tied and then into a laundry bag. (Brown polythene bag used in Mental Health areas) |
## Whooping Cough (Pertussis) Transmission Based Precautions

| Moving between wards, hospitals and departments (including theatres) | Patients can be transferred between units and departments. Inform the receiving ward before transfer, of the need for transmission based precautions. Staff transferring the patients do not need to wear protective clothing during the transfer but should decontaminate their hands by washing with liquid soap and water or with use of alcohol hand gel once transfer is complete. |
| Notice for the door | Yes. Yellow IPC sign |
| Patient clothing | **Home Laundering** If relatives or carers wish to take personal clothing home, staff must place soiled clothing into a domestic water soluble bag and staff must ensure that a [Washing clothes at Home Leaflet](http://www.nhsggc.org.uk/your-health/public-health/infection-prevention-and-contol) is issued and documented in patient notes. |
| Personal Protective Equipment (PPE) | Disposable yellow aprons and gloves should be worn for direct contact with the patient and their immediate surroundings. Perform hand hygiene before donning and after removing PPE. Where there is a risk of splashing of blood and or body fluids, including respiratory secretions, onto the face of the healthcare worker, a fluid repellent surgical mask and eye protection should be considered. During aerosol generating procedures, an FFP3 respirator and eye protection should be worn. |
| 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 (PHE 2018). |
| 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. |
| Terminal Clean of Room | As per [SOP Terminal Clean of Isolation Rooms and ward](http://www.nhsggc.org.uk/your-health/public-health/infection-prevention-and-contol). |
### Standard Operating Procedure (SOP)

**Whooping Cough (Pertussis) Transmission Based Precautions**

| 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. |

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The most up-to-date version of this SOP can be viewed at the following website:

4. Evidence Base


PHE (2016) Public health management of pertussis in healthcare settings


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’

http://www.nipcm.hps.scot.nhs.uk/
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 contact Public Heath who will advise on contact tracing

YES

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

NO

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.

NO
*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.
Appendix 2: Whooping Cough Aide Memoire

Consult SOP and isolate in a single room with:
- ensuite / own commode
- door closed
- IPC yellow sign on door
- dedicated equipment

Patient Assessed Daily

Patient has completed 48 hours of appropriate treatment?

NO

✔ Stop isolation
✔ undertake terminal clean of room

SOP - Guidelines for patients in isolation:
(click on links to SOP for more information)

Hand Hygiene: Liquid Soap and Water or alcohol hand rub

PPE: Disposable gloves and yellow apron, surgical mask/face protection should be considered where there is a risk of spray/splash. FFP3 mask for Aerosol Generating Procedures. (AGPs)

Patient Environment: Twice daily chlorine clean

Patient Equipment: Twice daily chlorine clean

Laundry: Treat as infected

Waste: Dispose of as Clinical / Healthcare waste

Incubation Period: 5 – 21 days
Period of Communicability: until 48 hours of antibiotic treatment has been completed or after 21 days from the onset of symptoms

Notifiable disease: Yes
Transmission route: contact, droplet

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