Guidance Objective

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

This guidance 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 GUIDANCE

Important Note: The version of this policy found on the Infection Prevention & Control (eIPC Manual) on the intranet page is the only version that is controlled. Any other versions either printed or embedded into other documents or web pages should be viewed as uncontrolled and as such may not necessarily contain the latest updates, amendments, or linkages to other documents.

Document Control Summary

Approved by and date	Board Infection Control Committee 15th December 2022
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Developed by	Infection Prevention and Control Policy SOP Sub-Group
Related Documents	National IPC Manual NHSGGC Hand Hygiene Guidance NHSGGC SOP Cleaning of Near Patient Equipment NHSGGC SOP Twice Daily Clean of Isolation Rooms NHSGGC SOP Terminal Clean of Ward/Isolation Room
Distribution/Availability	NHSGGC Infection Prevention and Control Web page: www.nhsggc.scot/hospitals-services/services-a-to-z/infection-prevention-and-control
Lead Manager	Director Infection Prevention and Control
Responsible Director	Executive Director of Nursing

CONTENTS

Measles Aide Memoire

Consult guidance and isolate in a single room with:

- ✓ ensuite / own commode
- ✓ door closed
- ✓ IPC yellow sign on door
- ✓ dedicated equipment
- ✓ Ideally room should have negative pressure ventilation
- ✓ If patient is immunocompromised discuss placement with medical team and IPCT
- ✓ **Care Checklist** completed daily

Patient Assessed Daily

NO

It has been 4 days since the onset of rash

YES

- ✓ Stop isolation
- ✓ undertake terminal clean of room

Guidance - Guidelines for patients in isolation:

Hand Hygiene: Liquid Soap and Water or alcohol hand rub

PPE: Staff must wear:

A disposable yellow apron, gloves and an FFP3 mask for direct care, including aerosol generating procedures.

Where there is a risk of splashing of blood/body fluids to the face, eye protection should be considered and worn during AGPs

Patient Environment: Twice daily chlorine clean

Patient Equipment: Chlorine clean after use and at least on a twice daily basis

Laundry: Treat as infected

Waste: Dispose of as Clinical / Healthcare waste

Incubation Period: 7 – 18 days

Period of Communicability: 5 days before, until 4 days after the onset of rash

Notifiable disease: Yes

Transmission route: direct, indirect droplet, airborne.

Visiting: Clinical staff should explain the risk of Measles exposure to visitors. Only those visitors with previous exposure to the patient while infectious, should be allowed to visit as long as they are not infectious. Close contacts of the patient who are not immune should be advised against visiting. Contact the IPCT for advice.

1. Responsibilities

Healthcare Workers (HCWs) must:

- Follow this guidance.
- Inform their line manager if this guidance cannot be followed.

Clinicians must:

- Notify NHSGGC Public Health Protection Unit (PHPU) of any **suspected or confirmed** cases of Measles via PHPU switchboard. PHPU Consultant can be contacted via switchboard in and out of hours.

Microbiologists must:

- Laboratory staff must notify NHSGGC PHPU if they make a laboratory diagnosis of Measles.

Senior Charge Nurses (SCN) / Managers must:

- Support HCWs and Infection Prevention and Control Teams (IPCTs) in following this guidance.
- Advise HCWs to contact the Occupational Health Service (OHS) as necessary.

Infection Prevention and Control Teams (IPCTs) must:

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

Occupational Health Service (OHS) must:

- Advise HCW regarding immune status, possible infection exposure and return to work issues as necessary.

2. General information on Measles

Communicable Disease/ Alert Organism	Measles caused by the measles virus – an enveloped virus.
Clinical Condition	A respiratory disease caused by the measles virus. It is an acute disease which causes fever, conjunctivitis, cough, runny nose and sneezing. This is followed by small grey/white spots, called Koplik's spots, on the inside of the mouth (inner cheek). These symptoms usually appear 1 to 2 days before rash onset and may last for 2 to 4 days. Measles rash appears red and blotchy, developing 2 to 4 days after the onset of fever, and spreading from the head to the body over the next 3 to 4 days. Symptoms first appear 10-12 days after exposure to the virus. Usually symptoms start as fever, then runny nose, cough and/ or conjunctivitis. The disease can be more severe in infants and adults than children with as many as 20% having complications, especially in those < 5 and > 20 years of age. Complications include otitis media, viral pneumonia, croup, rarely encephalitis and (later) subacute sclerosing panencephalitis. Secondary bacterial infections, such as pneumonia, can also occur. Infections can be life-threatening in the immunosuppressed. If a clinical case of measles is suspected, clinicians should seek advice from a paediatric/ adult ID physician and Public Health.
Incubation period	7 – 18 days.
Mode of Spread	**Airborne** and **Droplet transmission** –Droplets are dispersed in the air when the patient coughs, sneezes or talks. Droplets from an infected person may land on the mucous membranes of the eyes, nose or mouth of a susceptible person. **Direct contact** – hands touching a contaminated surface then touching the mucous membranes of the eyes, nose or mouth of a susceptible person. **Indirect contact** – a contaminated object having contact with the mucous membranes. *The virus can survive on inanimate surfaces for several hours and can be transmitted via the hands from these contaminated surfaces*.

Notifiable disease	Yes. Suspected /confirmed cases should be notified by medical staff to: PHPU, Consultant in Public Health Medicine (CPHM) via switchboard - cases must be notified urgently by telephone (in and out of hours).
Period of communicability	5 days before the onset of the rash until 4 days after (Day of rash being counted as Day Zero). Immunocompromised patients may have prolonged excretion of the virus in respiratory secretions and can be infectious for the duration of the illness. Patients with subacute sclerosing panencephalitis (SSPE) are not infectious.
Persons most at risk	Anyone who has not had measles or 2 doses of MMR vaccination, including children less than 12 months old. The risk of complications resulting from measles is high among infants younger than 1 year of age. Therefore consideration should be given to vaccination of infants as young as 6 months if given within 72 hours of exposure. All contacts should be reviewed with extra consideration for immunocompromised patients and pregnant women, exposed to Measles, should also be reviewed to determine level of exposure and immunity. Staff, who have been exposed and are uncertain of their immunity status, should speak to Occupational Health and/or their own GP if concerned.

3. Transmission Based Precautions for patients with Measles

Accommodation (Patient Placement)	Patients must be nursed in a single room with negative pressure ventilation until 4 days after the onset of the rash. If the single room does not have an ensuite facilities, or if not available patient should have their own commode.
Clinical/ Healthcare Waste	All non-sharps waste from patients with Measles should be designated as clinical healthcare waste and placed in an orange bag. See NHSGGC Waste Management Policy
Contacts	See Green Book, Chapter 21
Domestic Services / Facilities	Only staff who have had measles or who have demonstrated immunity to measles should enter the room to provide domestic services. A history of measles or 2 doses of MMR immunisation is considered evidence of immunity. Domestic staff must follow the SOP for Twice Daily Clean of Isolation Rooms. Cleans should be undertaken at least four hours apart. Please refer to NHSGGC SOP Twice Daily Clean of Isolation Rooms
Equipment	Take only into the room that which is necessary. Where practical allocate individual equipment and decontaminate as per NHSGGC Decontamination SOP. Please refer to NHSGGC Decontamination Guidance

Exposure (staff)	Prevent exposure by allowing only HCWs who are immune to measles to care for patients during the infectious period using Standard Infection Control Precautions (SICPs) and Transmission Based Precautions (TBPs). Refer to NHSGGC Occupational Health Pregnant staff or staff who have been exposed and are unsure of their immunity status should contact Occupational Health and/or their own GP for advice as soon as possible. See ***Contacts*** section for information on post exposure prophylaxis
Exposure (patients)	Seek advice from IPCT. Exposed patients should be isolated in a single side room or cohorted.
Hand Hygiene	Measles can be transmitted by direct contact Hand hygiene is the single most important measure to prevent cross-infection with measles 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 Guidance
Last Offices	See National Guidance for Last Offices
Linen	Treat used linen as soiled/ infected, i.e. place in a water soluble bag, then a secondary bag tied and then into a laundry bag. (Brown bag used in Mental Health areas) Please refer to National Guidance on the safe management of linen Any soiled clothing for home laundering should be placed into a water soluble bag then into a patient clothing bag before being sent home. All soiled clothing for home laundering should be accompanied with a Washing Clothes at Home Leaflet and staff should alert relatives / carers to the condition of the laundry.
Moving between wards, hospitals and departments (including theatres)	Patient movement should be kept to a minimum. Prior to transfer HCWs from the ward where the patient is located **must** inform the receiving area of the patient's infection status and the IPCT. When patients need to attend other

	departments the receiving area should put in place arrangements to minimise contact with other patients and arrange for additional domestic cleaning if required.
Notice for Door	Yes, yellow IPC isolation sign.
Personal Protective Equipment (PPE)	Staff must wear: • A disposable yellow apron, gloves and an FFP3 mask for all direct care, including aerosol generating procedures. • Where there is a risk of splashing of blood/body fluids to the face, eye protection must be used.
Precautions required until	Transmission Based Precautions are required until 4 days after the onset of the rash**.** (Rash onset day is counted as Day Zero)
Screening staff	Because of the 7-18 day incubation period, there is no reason for immediate absence from work. Pregnant staff or staff who have been exposed and are unsure about their immune status should contact OHS or their GP for advice as soon as possible
Specimens required	Throat or mouth swab in viral medium must be taken at the earliest opportunity and within 6 days of rash appearance (contact virology for advice if necessary). PHPU swab kits are for surveillance purposes only, not for diagnosis and can take several weeks to get a result.
Terminal Cleaning of Room	For terminal clean of the isolation when patient is no longer infection or is discharged please see: NHSGGC Terminal Clean of Ward/Isolation Room SOP
Visitors	Clinical staff should explain the risk of Measles exposure to visitors. A history of measles or 2 doses of MMR immunisation is considered evidence of immunity. Close contacts of the patient who are not immune could potentially be incubating the infection and should be advised against visiting. Contact the IPCT for advice.

4. Evidence Base

Public Health England (2019) National Measles Guideline
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/849538/PHE_Measles_Guidelines.pdf

Health Protection Network: Guideline for the Control of Measles Incidents and Outbreaks in Scotland (2018)
https://www.hps.scot.nhs.uk/resourcedocument.aspx?id=6826

Immunisation against infectious disease 'Green Book' (2013). Department of Health.
Measles: the green book, chapter 21 - GOV.UK

Health Protection Scotland (2018) National Infection Prevention and Control Manual.
Available from http://www.nipcm.scot.nhs.uk/about-the-manual/