

London-wide GP webinar - Measles

21st February

Chaired by

Dr Genevieve Small

Medical Director for Primary Care NHS NW London

London-wide GP webinar- Measles

21st Feb 2024 1-2pm

Time	Item	Presented by
1pm	Welcome	Dr Genevieve Small Medical Director for Primary Care NHS NW London
1:05pm	National and London picture	Dr Shamez Ladhani Consultant Epidemiologist, Immunisation and Countermeasures Division, UK Health Security Agency
1:10pm	Diagnosing measles in primary care	Dr Elizabeth Whittaker Consultant Paediatric Infectious Diseases and Immunology, Imperial College Healthcare NHS Trust
1:25pm	Notifying measles cases to HPT	Nalini Iyanger, Consultant in Health Protection, North West London Health Protection team, UKHSA
1:35pm	Infection Control in primary care	Nicola Sirin, Regional Infection Prevention and Control Lead, NHS England - London
1:45pm	Questions from attendees (selected from chat)	Dr Hannah Theodorou Medical Director, Londonwide LMCs
2pm	Close	

Please add your questions to the chat. We will aim to answer as many as possible on the day.



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Measles in 2023/2024 Epidemiology

Dr. Shamez Ladhani

21 February 2024

Consultant Epidemiologist, UKHSA

Paediatric Infectious Diseases Consultant, St. George's Hospital, London

Email: shamez.Ladhani@ukhsa.gov.uk

Overview - current situation

- In 2023 we have seen a resurgence of measles in England
- From 1 October, there has been a rapid escalation of cases – mainly driven by outbreaks in West Midlands
- Coverage for MMR vaccine in UK has fallen to the lowest level in a decade:
 - national 1st dose uptake in 2 year olds **89.4%**, 2nd dose in 5 year olds **83.8%**
 - to achieve and maintain measles elimination (and prevent outbreaks) we need **95% uptake with 2 doses of the MMR** vaccine by the time children turn 5 years
 - this target is an NHS [Long-Term Plan](#) (LTP) commitment and high priority within NHS England

MMR vaccine

- MMR dose 1 at 1 year of age
- MMR dose 2 at 3 years and 4 months

- 1 dose 95% effective
- 2 doses 99% effective - lifelong protection

- Two products available:
 - practices can preferentially order the

Driving up MMR vaccine uptake in under-vaccinated communities is key control measure for the genuine free product for their communities To prevent outbreaks need to reach 95% uptake



INCLUDES SCHEDULE FROM 2022

A guide to immunisation for
**babies up to
13 months of age**



immunisation
the safest way to protect your child

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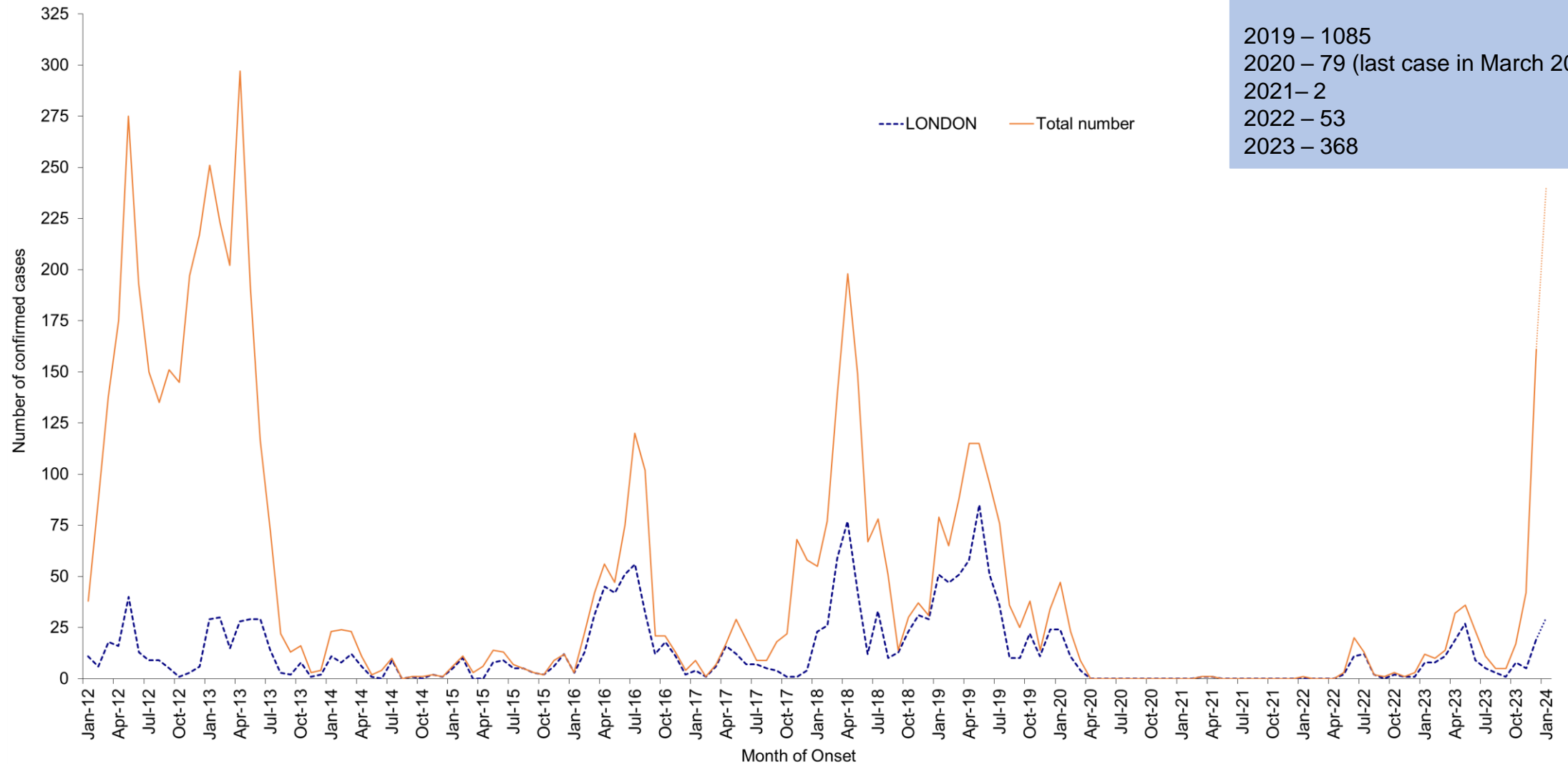


M MEASLES	M MUMPS	R RUBELLA
VACCINATION		
This leaflet explains about measles, mumps and rubella and the MMR vaccination which helps protect against all three diseases.		
i mmunisation Helping to protect everyone, at every age		

Measles total laboratory confirmed* measles cases from January 2012 to January 2024, London and England

Annual lab confirmed measles cases, England

2019 – 1085
 2020 – 79 (last case in March 2020)
 2021 – 2
 2022 – 53
 2023 – 368



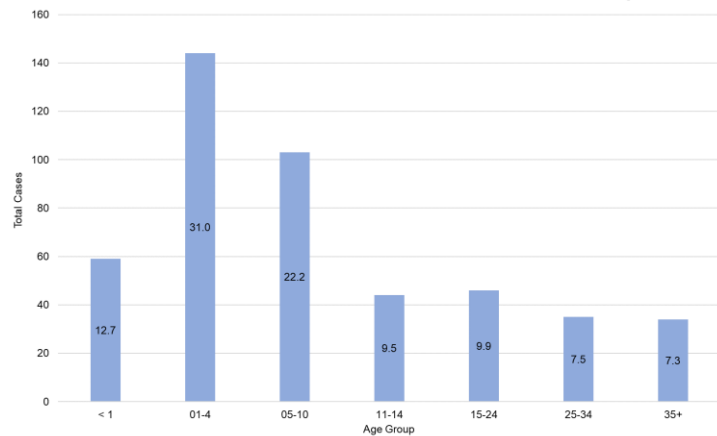
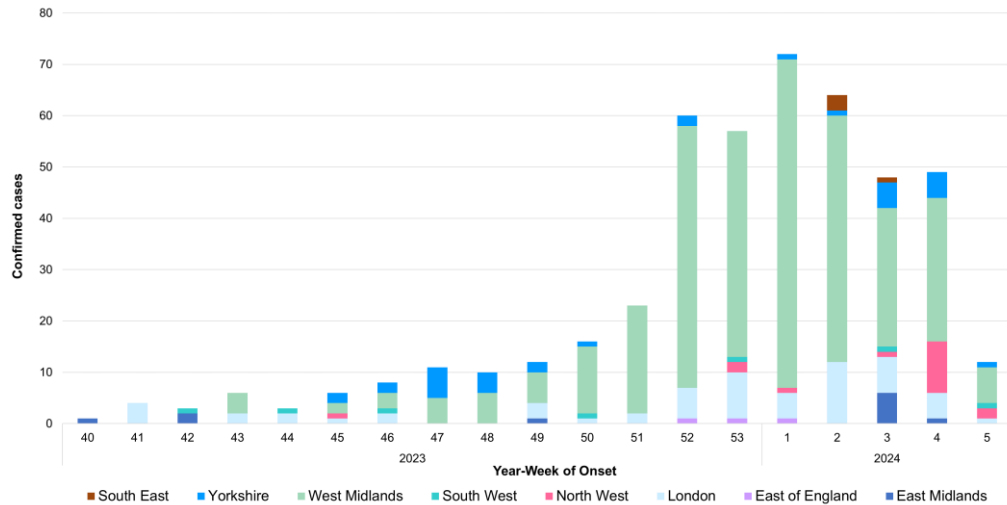
* Cases confirmed through either local or reference laboratory testing

** Data for the past 4 weeks are provisional and subject to confirmation in the reference laboratory and are therefore depicted as dotted lines. One previously confirmed case was discarded through further testing and epidemiological analysis.

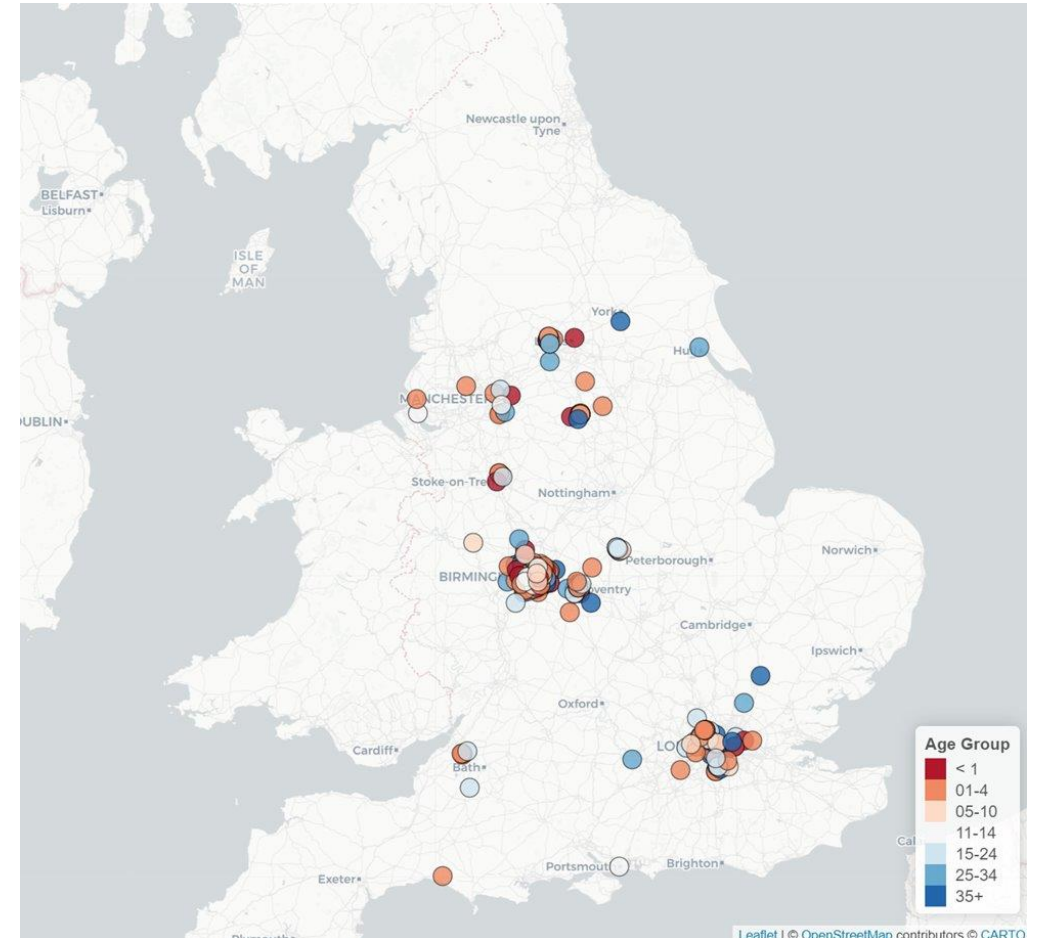
Measles laboratory confirmed cases (Data correct as of 6 February 2024)

Data for 2023: In 2023 we have seen a resurgence of measles in England. From 1 January to 31 December 2023 there were 368 laboratory confirmed measles cases, 122 (33%) of these in London and 160 (44%) in the West Midlands, however all Regions have reported cases; while the London cases have remained consistent monthly, the West Midlands cases were extremely low until December 2023.

Data from 1 October 2023 to 6 February 2024: Data from 01 October 2023 to 06 February 2024: There has been a rapid escalation of activity from October 2023, with 465 confirmed measles cases reported between 01 October 2023 and 06 February 2024. 17 cases were reported in October, 42 in November, 161 in December, 240 in January, and 5 so far in February 2024. 71% (329/465) of these cases have been in the West Midlands, 13% (62/465) in London and 7% (32/465) in Yorkshire and The Humber. The majority (306/465, 66%) of these cases are in children under the age of 10, and 25% (115/465) in young people and adults over the age of 15.



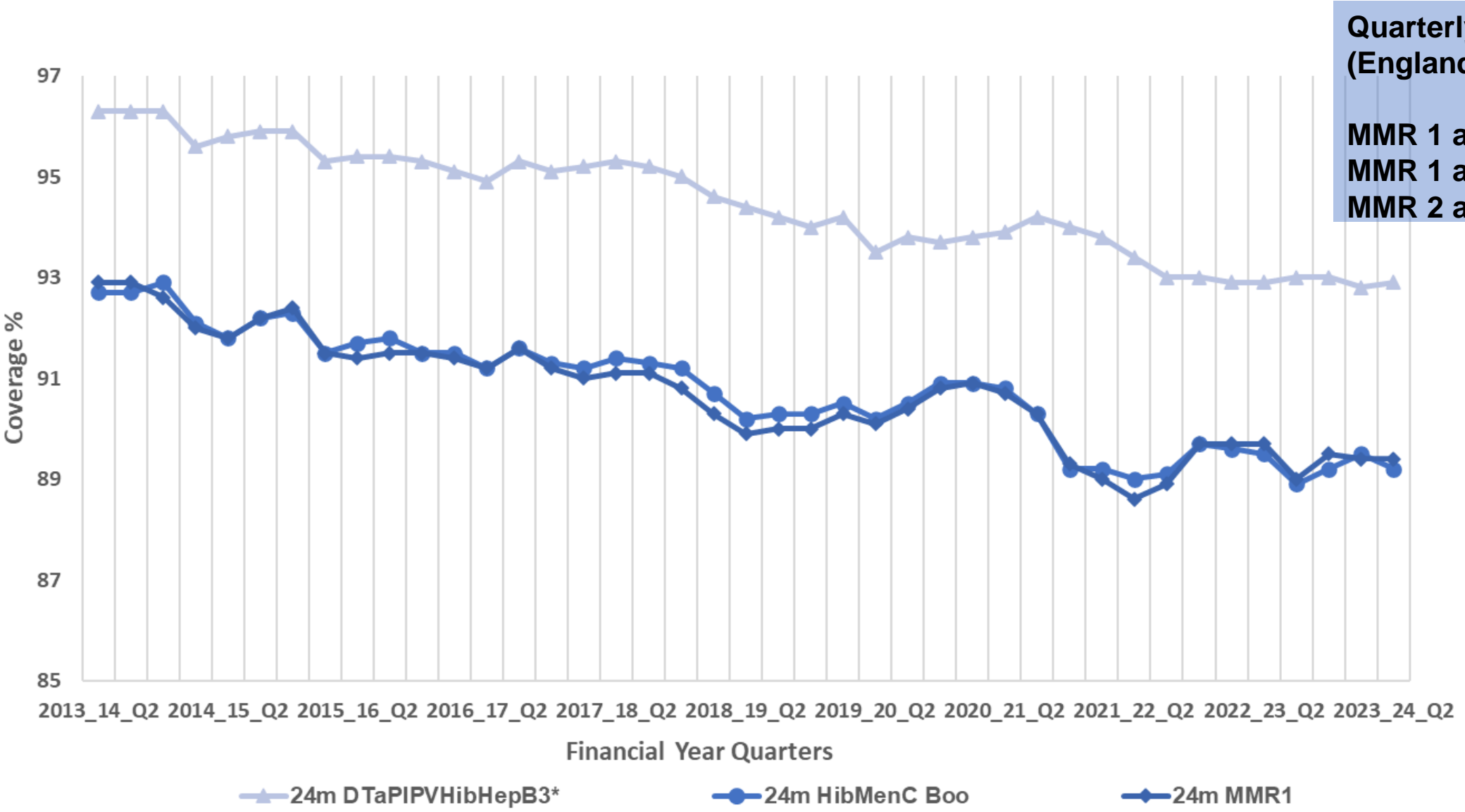
Total (%) lab confirmed measles cases by age group, October 2023 to date, England*



Distribution of lab confirmed measles cases in England, October 2023 to date*

* Data for the past 4 weeks are provisional and subject to confirmation in the reference laboratory and are therefore depicted as dotted lines. One previously confirmed case was discarded through further testing and epidemiological analysis

MMR1, Hib/MenC and Hexavalent vaccine coverage in 2 year olds by quarter from Q2 2013 to Q2 2023: Source UKHSA COVER Quarterly statistics



Quarterly Q2 2023/24 (England)

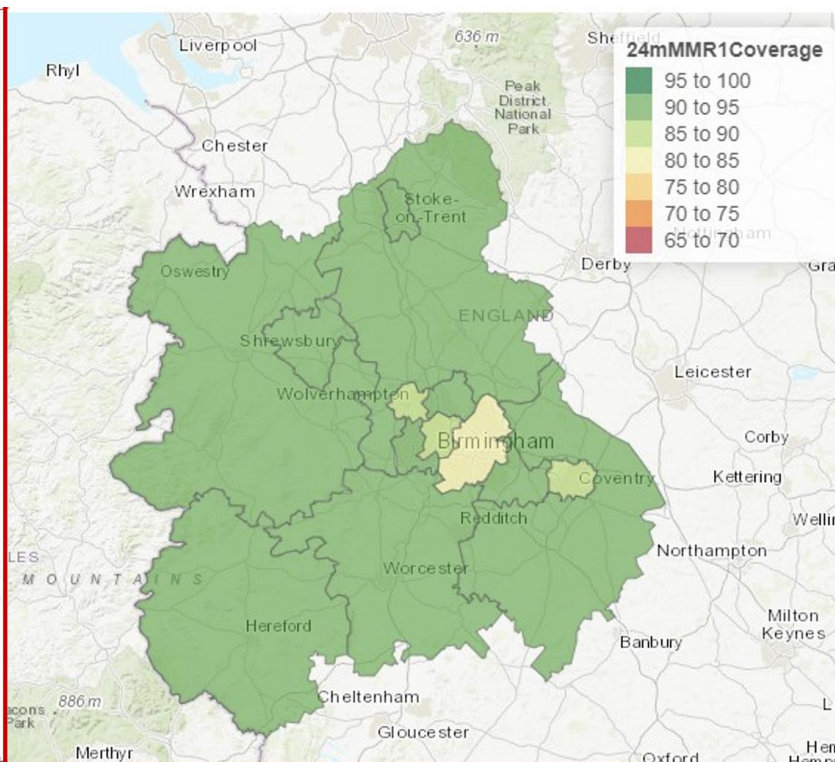
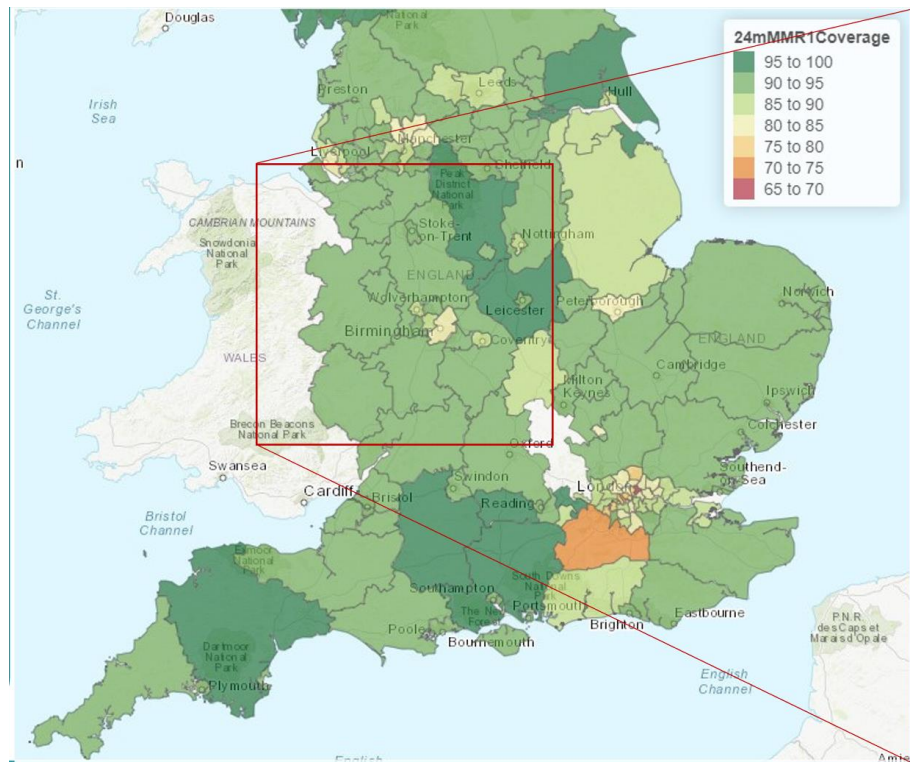
MMR 1 at 2 years: 89.4%
MMR 1 at 5 years: 92.3%
MMR 2 at 5 years: 83.8%

Completed UK primary immunisations at 24 months by NHS England local team: July to September 2023 (April to June 2023)

NHS England local teams	No. of LAs	DTaP/IPV/Hib/HepB3%	MMR1%
London	33	88.8 (88.9)	82.9 (83.1)
North (Yorkshire and Humber)	15	94.0 (93.5)	91.2 (90.2)
North (Lancashire and Greater Manchester) [note 1]	13	91.9 (92.6)	88.9 (89.1)
North (Cumbria and North East)[note 1]	13	96.4 (96.1)	95.0 (94.9)
North (Cheshire and Merseyside)	9	91.9 (92.0)	89.2 (89.4)
Midlands and East (North Midlands)	8	95.4 (94.5)	92.9 (92.1)
Midlands and East (West Midlands)	10	92.2 (91.7)	88.2 (87.7)
Midlands and East (Central Midlands)	11	92.6 (92.8)	91.1 (91.3)
Midlands and East (East)	7	94.5 (94.5)	92.3 (91.2)
South West (South West South)	8	94.7 (94.9)	93.1 (92.8)
South West (South West North)	7	95.4 (95.2)	93.3 (93.1)
South East (Hampshire, Isle of Wight and Thames Valley)	12	95.4 (95.1)	93.3 (93.1)
South East (Kent, Surrey and Sussex) *	6	92.9 (93.2)	84.9 (89.1)

* Due to data quality issues this quarter due to a change in provider South East data should be interpreted with caution

MMR vaccine dose 1 coverage in children aged 2 years, England, West Midlands (and Upper Tier Local Authorities)



	MMR1 at 2 years
Herefordshire	94.5
Telford and Wrekin	92.4
Stoke-on-Trent	93.1
Shropshire	94.2
Birmingham	81.3
Coventry	88.2
Dudley	91.5
Sandwell	86.9
Solihull	92.8
Walsall	92.6
Wolverhampton	86.1
Staffordshire	93.7
Warwickshire	93.7
Worcestershire	93.8

Predicting outbreaks – UKHSA modelling

- [Risk assessment of measles resurgence in the UK – published July 2023](#)
 - current MMR uptake levels lowest in a decade
 - during pandemic - increased pool of susceptibles in younger children - **around 1 in 10 children starting school at risk of measles**
 - London remains most vulnerable region (also most likely to get importations) – **could sustain large outbreaks 40,000 - 160,000 cases**
 - high risk of outbreaks in:
 - **inner-city areas** with some risk of limited spread to the wider community
 - **under vaccinated communities** e.g. migrant populations, traveller communities, and ultra-orthodox Jewish communities
- **Risk of spillover of current outbreak to other localities and Regions**: work underway to improve uptake and shore up defences



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Measles – a HPT perspective

Nalini Iyanger
Consultant in Health Protection
North West London HPT

21.02.2024

HPT response

- Assess whether a reported case is considered likely or unlikely
- Send test kit to all cases, but this is for surveillance purposes only
- If likely case, identify contacts and give advice to prevent spread
- If vulnerable contacts identified, we may arrange urgent testing
- Identify and manage outbreaks in settings e.g. school with NHS and Local Authority colleagues

HPT response – Managing contacts of likely cases

Vulnerable contacts - Ideally within **72 hours** of exposure

- Immunocompromised contacts - IVIG if assessed to be susceptible
- Pregnant women- HNIG if considered to be susceptible
- Under 1s – MMR or HNIG depending on age and where exposed

Susceptible, healthy contacts

- If unvaccinated, MMR within **3 days** of exposure. Will request GP to do this

Contacts may still get measles so important to flag and isolate in general practice if attending with rash illness in the next 3 weeks following exposure.

Likely requests from general practice for individual cases

- Assess any exposures in general practice
- Vaccinate contacts
- Check immunity
- Administer HNIG. HPT will source.
- Flag contacts in case they become unwell and present to the practice

Actions for general practice to take now

- Maintain a robust routine vaccination programme
- Call- recall of eligible patients and opportunistic catch ups
- Check vaccination history of staff (including non clinical) and offer vaccination where no history. Exposed staff with no vaccination/immune history will be asked to exclude for up to 21 days.
- Put in processes to identify pts with fever and rash (including adults) and isolate them on arrival.
- Send notification to HPT when measles is suspected - <https://www.gov.uk/guidance/contacts-phe-health-protection-teams#north-west-london-hpt>

When to notify

- Notify on clinical suspicion
- Notify by email using the [London notification form](#). **Unless contact of concern, in which case phone the HPT.**
- Provide information that allows us to assess whether case is likely or unlikely
 - Does the case meet the case definition for primary measles?
 - Clinical history- why measles is suspected, presence or absence of relevant symptoms and onset dates
 - MMR status
 - Epidemiological link- Is there a link to existing case or outbreak setting or travel to endemic country?
 - Any contacts of concern in the household? Particularly immunosuppressed contacts.

Vaccination recommendations

- Remain as per usual green book advice and PGD – MMR1 at 1 year and MMR2 at 3 year and 4 months (MMR2 at 18 months in some boroughs, according to local arrangements)
- No current recommendation to routinely vaccinate under 1s. Only if specifically requested by HPT as part of contact management
- No current recommendation to routinely bring forward MMR2. Only if specifically requested by the parent or by the HPT as part of contact management
- There is no upper age limit to giving the MMR– 2 doses a month apart

More information in the [green book](#) and your PGD

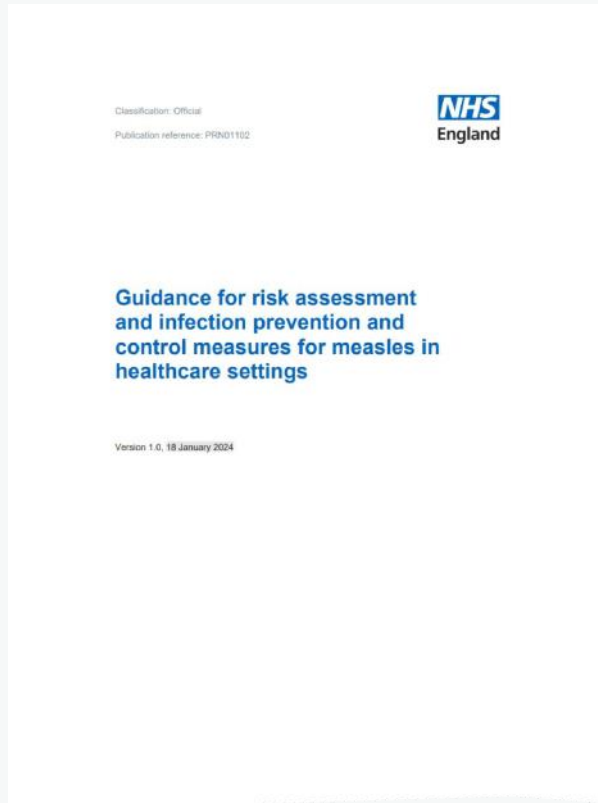
Measles

Infection prevention and control
measures for GP practices

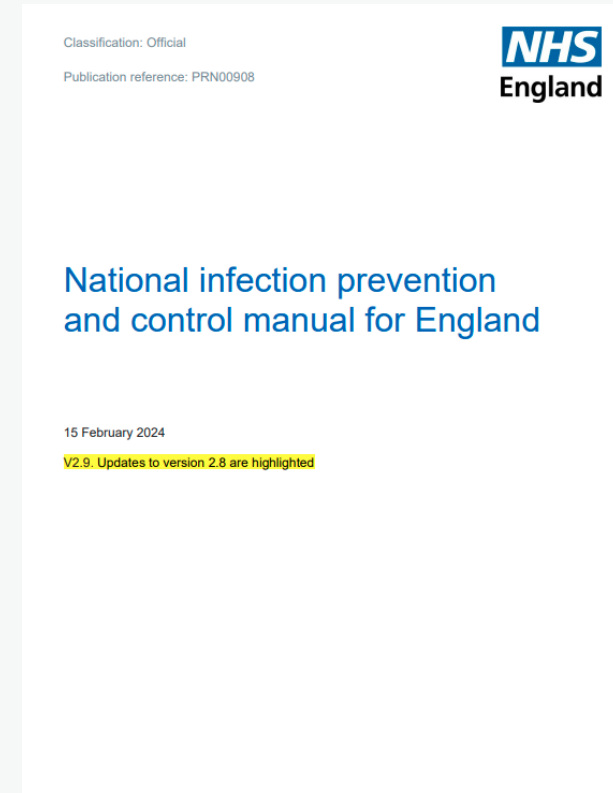
February 2024

Infection prevention and control: national guidance

[NHS England » Guidance for risk assessment and infection prevention and control measures for measles in healthcare settings](#)

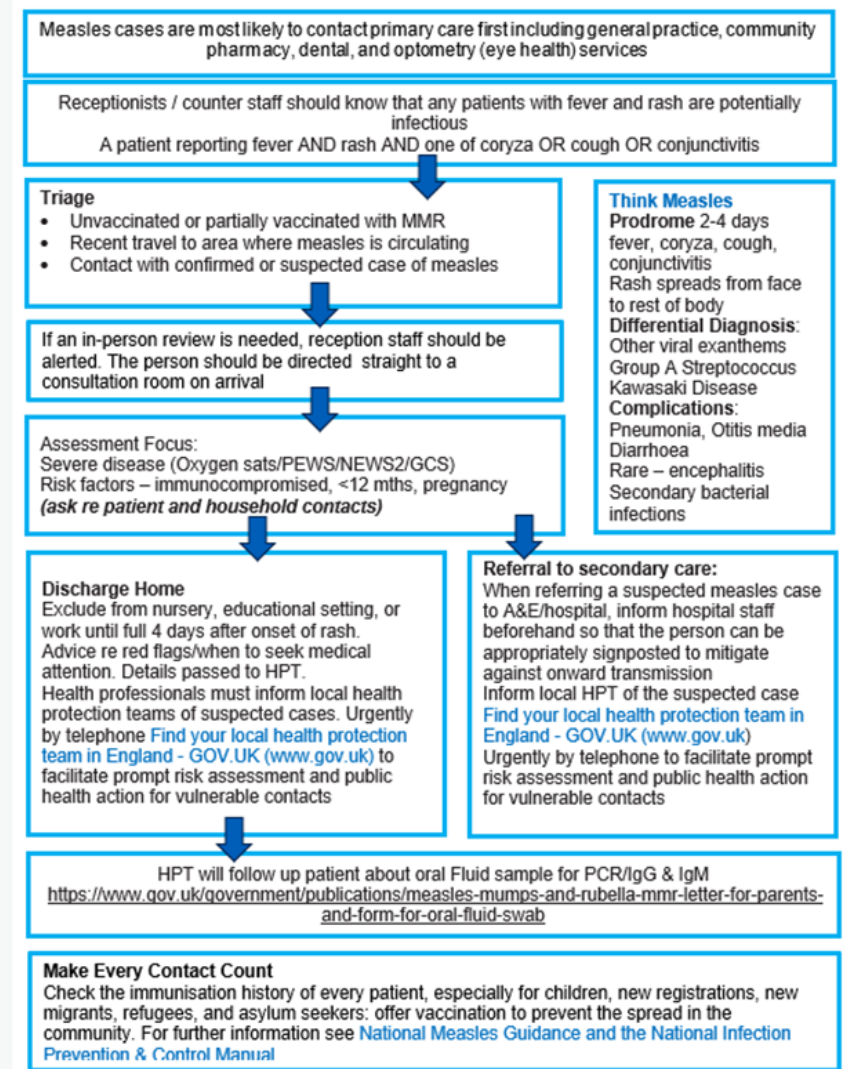


[NHS England » National infection prevention and control manual \(NIPCM\) for England](#)



Infection prevention and control basics

- Principles of standard infection control precautions (SICPs) for all patients whether infection is known to be present or not.
- Transmission based precautions (TBPs) should be applied additionally when SICPs alone may be insufficient to prevent cross transmission of specific infectious agents.
- Local risk assessment: *Think Measles – primary care actions for screening, triage and management*, IPC hierarchy of controls.
- Check practice staff immunity status: all staff involved in direct patient care, including anyone who has contact with patients e.g. reception staff, should have documented evidence of two doses of the MMR vaccine or positive antibody tests for measles and rubella, in line with national guidance.



Prevention of transmission

- Following clinical triage, if a patient with suspected or confirmed measles is required/advised to attend a primary care setting in person, there should be separation in space and/or time between patients to avoid cross-over of potentially infectious and non-infectious patients. Consider appointment time at end of surgery if clinically appropriate.
- Ensure reception staff are aware to direct the patient (+ any parent/carer) straight to a designated separate well-ventilated consultation room on arrival.
- If referral on to secondary care is required, inform the receiving hospital department in advance if measles is suspected. Ambulance service should also be informed if transfer is arranged.

UK Health Security Agency **NHS**

Think measles!

Vaccination rates have fallen, and cases of measles are increasing in England. Any patient with fever and a rash is potentially infectious and should be directed to a side room on arrival.

Isolate anyone presenting with a rash and fever straight away

- measles starts with a 2 to 4 day "prodromal" phase before the rash appears, with coryza, cough, conjunctivitis and a fever
- fever typically increases, to peak around rash onset
- rash generally starts behind the ears, spreads to the face and then spreads onto the trunk and can become generalised. The rash is red, blotchy, maculopapular (not itchy) and lasts around 3 to 7 days
 - the rash is more difficult to spot on dark skin (see images 3, 4 and 5)
 - Koplik spots may appear around the time of the rash and last for 2 to 3 days so can easily be missed. They are small white or bluish/white lesions on the buccal mucosae. They can be confused with other lesions in the mouth and so their suspected presence is an unreliable marker of measles
 - the infectious period spans 8 days i.e. cases are infectious from 4 days before rash onset and for 4 full days after
 - several other common rash illnesses have similar presentations (especially in young children) e.g. roseola, parvovirus infection and scarlet fever, and so identification on clinical features alone may be unreliable

If you suspect measles call your local UKHSA Health Protection Team (HPT) to notify and conduct a risk assessment

- if the patient is calling, advise them to seek medical advice from their GP over the phone or NHS 111, if this is appropriate
- if an in-person review is needed, reception staff should be alerted. The patient should be directed to a side room on arrival
- report to local HPT urgently by phone to facilitate prompt risk assessment and public health action for vulnerable contacts **under 1 year olds, pregnant, immunocompromised**. HPT contact details can be found here www.gov.uk/health-protection-team
- check for epidemiological factors that increase likelihood of measles
 - unimmunised status
 - recent exposure to someone with rash/illness
 - recent travel
 - occupation e.g. healthcare worker, nursery worker
- exclude from nursery/educational settings/work until full 4 days after onset of rash

Check all your staff are fully vaccinated

For patients:

- routinely check vaccination history of patients
- offer vaccine if not fully protected
 - children should receive 2 doses of MMR1, the first at 12 months of age and the second at pre-school (3 years and 4 months)
 - there is no upper age limit for receiving MMR1 vaccines

For staff:

- staff should have documented evidence of two doses of the MMR1 vaccine or have positive antibody tests for measles and rubella

Image 1: Copied from www.nhs.uk/health-protection-team. Image 2: Koplik spots from www.nhs.uk/health-protection-team. Image 3: Measles rash from www.nhs.uk/health-protection-team. Image 4: Measles rash from www.nhs.uk/health-protection-team. Image 5: Measles rash from www.nhs.uk/health-protection-team. Image 6: Measles rash from www.nhs.uk/health-protection-team. © Crown copyright 2011. Under 1 UK Health Security Agency. Version 201107. Produced under MMR1/11/13. NHS. P/CT 2011 07/13. To receive this notice in your local language visit www.nhs.uk/health-protection-team

PPE for assessment and management of suspected or confirmed cases of measles


Airborne and droplet transmission - regardless of staff vaccination status:

- Single use disposable gloves
- Single use disposable apron
- Respiratory protective equipment (RPE) - fit testing on FFP3 masks in use is a legal requirement
- Eye/face protection (goggles or visor)

Surgical face masks as source control:

If a patient has suspected or confirmed measles, then if suitable and tolerable the patient should be asked to wear a surgical face mask in communal areas (for example, during a transfer).

N.B. An FFP3 mask should never be worn by a patient.


Appendix 6: Putting on and Removing Personal Protective Equipment (PPE) 


Before undertaking any procedure or task, staff should assess the risk of likely exposure to blood and/or other body fluids, non-intact skin, mucous membranes, or any equipment or items in the care environment that could be contaminated, and wear PPE if required. PPE must protect adequately against the risks associated with the procedure or task. The items of PPE worn will vary based on the type of exposure anticipated, and not all items of PPE may be required.


Putting on Personal Protective Equipment (PPE)


Before beginning, check which items of PPE are required and that these are available in the correct size.


The order for putting on PPE is Apron or Gown, Fluid-Resistant Surgical Mask (FRSM)/Respiratory Protection Equipment (RPE) (FFP3), Eye Protection, then Gloves.

- 

Apron: Pull over head and tie securely at the back.
- 

Gown: Fully cover torso neck to knees, arms to end of wrist and wrap around the back. Fasten at the back.
- 

FRSM or RPE (FFP3): Secure ties or elastic bands at middle of head and neck. Fit flexible band to nose bridge. Fit snug to face and below chin. Respiration must be fit checked if being worn.
- 

Eye Protection (Goggles/Face shield): Place over face and eyes and adjust to fit.
- 


Gloves: Pull on taking care to minimise contamination of the outer surface by holding gloves at the wrist opening only. Extend to cover wrist (over gown cuff, if applicable).


Steps on removing PPE are continued on the next page.


Removing Personal Protective Equipment (PPE)


When removing PPE, the correct technique is essential to avoid touching the most contaminated areas of PPE e.g. the outside of gloves and front of aprons/gowns, eye protection, and FRSM/RPE.

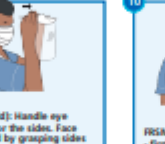
The order for removing PPE is Gloves, Apron or Gown, Eye Protection, then FRSM/RPE (FFP3).

- 

Gloves: Pinch and lift the palm side with the opposite gloved hand, peel off while turning inside out. Hold the removed glove in the gloved hand. Slide two fingers of the ungloved hand under the remaining glove at the wrist. Peel the second glove off over the first glove and discard.
- 

Apron: Unfasten or break neck ties and allow apron to fall forward. Unfasten or break waist ties and pull apron away from the body touching the inside only. Fold or roll into a bundle and discard.
- 

Gown: Unfasten neck, then waist ties. Remove using a peeling motion; pull gown from each shoulder towards the same hand turning gown inside out. Hold removed gown away from body, fold or roll into a bundle and discard.
- 

Eye Protection (Goggles/Face shield): Handle eye protection only by the headband or the sides. Face shields/goggles should be removed by grasping sides and pulling directly forward, away from face. To remove goggles with an elasticated headband, tilt head forward and grasp the headband with index fingers and thumb. Lift the headband upwards whilst pushing frame away from face, lower goggles and discard.
- 

FRSM or RPE (FFP3): Unfasten the ties - first the bottom, then the top or, if elasticated, pull top and bottom elastic together. Handling the ties/elastic only pull away from the face without touching front of mask/respirator and discard.

Cleaning and decontamination

The care environment should be:

- visibly clean, free from non-essential items and equipment to facilitate effective cleaning;
- well-maintained, in a good state of repair and with adequate ventilation.

Rooms/areas must be cleaned from highest to lowest points and from least to most contaminated points.

Wear PPE and use dedicated cleaning materials for room and equipment.

Usual clinical waste (orange bag – infectious).

Following suspected/confirmed patient vaccination of the care area, allow sufficient time for clearance of infectious particles (local risk assessment) before cleaning/decontaminating using either:

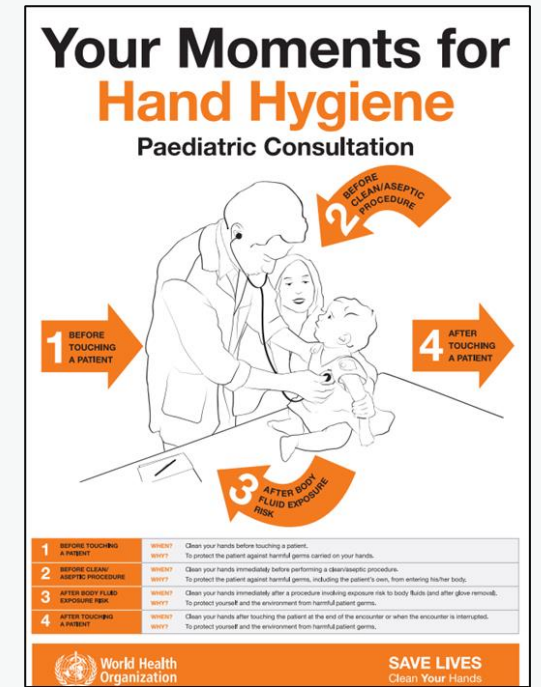
- a combined detergent/disinfectant solution at a dilution of 1,000 parts per million available chlorine (ppm available chlorine (av.cl.)); or
- a general-purpose neutral detergent in warm water followed by a solution of 1,000ppm av.cl).; or
- a locally approved detergent and disinfectant.

IPC contacts

London ICB IPC Leads

- NWL: Natalie Foley natalie.foley3@nhs.net
- NCL: Inam Ramsahye inam.ramsahye@nhs.net
- NEL: Sandra Smith Sandra.smith114@nhs.net
- SEL: Lizzie Wallman lizzie.Wallman@selondonics.nhs.uk
- SWL: Debbie Calver Debbie.Calver@swlondon.nhs.uk

NHSE London Public Health IPC Team england.phipc@nhs.net



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