

Appendix 2 - Measles - Briefing

Measles is the most infectious of all diseases transmitted through the respiratory tract. It is a notifiable and vaccine-preventable disease. Global cases of measles are high due to poor vaccination coverage made worse by the Covid-19 pandemic. Imported cases are therefore likely. In England there has been an increase in cases over the last year following low numbers during the pandemic years – most were in London where there is lower vaccine coverage compared to other areas. In late 2023 case numbers began to rise in the West Midlands where there are now established outbreaks with community transmission in those without vaccination. In this outbreak there have been 203 laboratory confirmed cases and 113 probable cases (linked directly to confirmed cases) and of these 80% have been in Birmingham and 8% in Coventry but there have also been cases in most local authority areas in the West Midlands region. In children measles is an unpleasant childhood illness but most make a full recovery. Complications are rare but some people are more at risk, including babies and people with weakened immune systems. These complications include pneumonia, encephalitis, blindness and seizures. It is also more severe in pregnancy, and increases the risk of miscarriage, stillbirth, or preterm delivery.

In the UK, measles vaccine is offered as part of the routine childhood vaccination schedule within the MMR vaccine that protects against measles, mumps and rubella. Dose 1 is offered at 12 months of age, and dose 2 at 3 years and 4 months of age both provided in primary care. Measles vaccine is highly effective, with one dose offering 95% protection and the second dose boosting protection even further.

Rates of MMR vaccination have dropped in Southampton and England over the last 10 years. Three indicators are used to monitor uptake including one dose by 2 years, one dose by 5 years, and two doses (complete course) by 5 years. For uptake of vaccine in 2022/23, Southampton has higher uptake compared to Birmingham and Coventry (see table 1). However most local authority areas in England fall short of the WHO target of 95% population coverage target required to eliminate the infection. We are therefore likely to see individual cases of measles in unvaccinated children living in Southampton (either linked to international travel or with direct links to cases in other areas where community transmission is happening such as the West Midlands) with a risk of transmission to other un or under-vaccinated children and those with weakened immune systems. Any cases that occur will be rapidly assessed and managed by UK Health Security Agency.

Table 1: MMR coverage 2022/23 by Local Authority Area and England average

Uptake Data 2022/23	MMR 1 dose at 2 years	MMR 1 dose at 5 years	MMR 2 doses at 5 years
England	89%	93%	85%
Birmingham	82%	88%	75%
Coventry	87%	91%	82%
Southampton	90%	92%	86%

The key public health control measure is to continue to work towards high level of MMR coverage as part of the routine childhood immunisation schedule, catch-up campaigns for those who missed their early childhood doses for any reason, and new migrants. Two age cohorts are particularly at risk. First those aged 18-23 years (born 1998-99 and 2003-4) affected by misinformation in the late 1990's, and those born in 2015 and 2019 where MMR doses were due during the pandemic. Healthcare providers have been updated regularly and are alerted to considering measles diagnosis in children presenting with a compatible rash as well as ensuring clinical staff are fully vaccinated. There is also an NHS national catch-up campaign currently requiring practices to undertake local call and recall for eligible individuals aged 12 months to and including 5 years, as well as supporting requests for vaccination of those aged 6-25 years identified through a phased national call and recall. MMR vaccine can be given at any age.