South West Healthcare Practitioner Guide to MMR Schedule & Eligibility
Version 1.0

By
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In the UK, our immunisation schedule is designed based on clear evidence to protect people against the infections that are most dangerous when they are very young and as people age.

**Two doses of the MMR vaccine** are recommended:
- The first when children are 1 year (on or after the child’s first birthday)
- The second when they are 3 years 4 months *(see note below)*
- However, the vaccine can be given **safely at any age** over 12 months

**Note on second doses:**
- Normally given before school entry at 3 years 4 months, but can be given routinely from eighteen months
- Should not routinely be given below 18 months
- Where protection against measles is urgently required, a second dose can be given from 4 weeks after the first

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MMR: Routine Schedule

Visit the [complete routine immunisation schedule](https://www.gov.uk) for more details.
MMR: Schedule and Eligibility

Children under ten years of age

- First dose from first birthday between 12 and 13 months of age.
- Immunisation before one year can provide protection for travel or in outbreaks but these doses should be ignored and repeated at the recommended times of between 12 and 13 months and at 3 years 4 months.
- Second dose should be given before school entry but not routinely before 18 months.
- For urgent protection the second dose can be given from one month after the first.
- Second doses given before 15 months should be ignored and repeated after 18 months to ensure full protection.

Children over ten years of age and adults

- All children should have received two doses before they go to secondary school.
- Partially vaccinated or unvaccinated women of child-bearing age should be opportunistically offered MMR doses either at least one month before trying to become pregnant or after they have given birth (pregnant people should not be vaccinated).
- If two doses of vaccine are required, they should be offered one month apart.
- MMR can be offered to individuals of any age (over 12 months) and should be offered opportunistically and promoted to unvaccinated or partially vaccinated younger adults – particularly those born before 1990.
- Individuals who were born in the UK between 1980 and 1990 may not be protected against mumps but are likely to be vaccinated against measles and rubella. They may never have received a mumps-containing vaccine or had only one dose of MMR and had limited opportunity for exposure to natural mumps. They should be recalled and given MMR vaccine. If this is their first dose, a further dose of MMR should be given from one month later.
- Individuals born between 1970 and 1979 may have been vaccinated against measles and many will have been exposed to mumps and rubella during childhood. However, this age group should be offered MMR wherever feasible, particularly if they are at high risk of exposure. Where such adults are being vaccinated because they have been demonstrated to be susceptible to at least one of the vaccine components, then either two doses should be given, or there should be evidence of seroconversion to the relevant antigen.
- Individuals born before 1970 are likely to have had all three natural infections and are less likely to be susceptible. MMR vaccine should be offered to such individuals on request or if they are at high risk of exposure. Where such adults are being vaccinated because they have been demonstrated to be susceptible to measles or rubella, then either two doses should be given or there should be evidence of seroconversion to the relevant antigen.
**MMR: Schedule and Eligibility**

Individuals with unknown or incomplete vaccination histories

- Unless there is a reliable history of appropriate immunisation, individuals should be assumed to be unimmunised.

**MMR – from first birthday onwards**

- Doses of measles-containing vaccine given prior to 12 months of age should not be counted.
- 2 doses of MMR should be given irrespective of history of measles, mumps or rubella infection and/or age.
- A minimum of 4 weeks should be left between 1st and 2nd dose MMR.
- If child is <3y4m, give 2nd dose MMR with pre-school dTaP/IPV unless particular reason to give earlier.
- Second dose of MMR should not be given <18m of age except where protection against measles is urgently required.

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**Vaccination of individuals with uncertain or incomplete immunisation status**

- Individuals who have previously received 1 dose of MMR should receive a second dose of MMR if there is any question about the date of the first dose or if the history suggests that they have not received 2 doses of MMR. This applies to children born from 2006 to 2010 and to adults born before 2001.

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**Green Book of Immunisation - Chapter 21 Measles**

- For further details, see the Green Book of Immunisation (publishing.service.gov.uk)

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Exceptions: Who Should Not Have MMR?

People who are pregnant
- As a precaution, the MMR vaccine is not recommended for pregnant people.
- You should also **avoid becoming pregnant for 1 month** after having the MMR vaccine.
- If you had the MMR vaccine while you were pregnant, it’s best to let your GP or midwife know
- Evidence suggests there will be **no harm to your baby, but it’s better to let them know.**

People with a weakened immune system
- The MMR vaccine is not recommended for people with a severely weakened immune system. For example, if you are having chemotherapy.
- If you have a medical condition, or are taking medicine that may **affect your immune system**, check if it’s safe for you to have the MMR vaccine with your healthcare provider.

People who have had a rare, confirmed very serious allergic (anaphylactic) reaction
- to a previous dose of a measles-, mumps- or rubella-containing vaccine
- or
- to neomycin or gelatine
About the MMR Vaccines

- **M-M-RVaxPRO** is manufactured by Merck Sharp and Dohme Ltd.
- **Priorix** is manufactured by GlaxoSmithKline UK.
- Centrally purchased vaccines for the NHS as part of the national immunisation programme can only be ordered via ImmForm. Vaccines for use as part the national immunisation programme are provided free of charge.
- Vaccines for private prescriptions, occupational health use or travel are NOT provided free of charge and should be ordered from the manufacturers.
- Further information about ImmForm is available at https://www.gov.uk/government/collections/immform, or from the ImmForm helpdesk at helpdesk@immform.org.uk, Tel: 0844 376 0040.
- There are no currently no supply issues for either MMRVaxPro or Priorix.
- There is a cap of 15 on the number of Priorix that can be ordered at a time, however requests to raise this cap will be granted. However, we would ask that MMRVaxPro be used as the first option where possible, to preserve Priorix stocks for the areas and communities where gelatine-free vaccine is needed across the country.

Priorix is gelatine free and should be offered to those requesting a gelatine free vaccine.
South West MMR FAQs

The following slides contain answers to frequently asked questions from our Immunisation clinical Advice & Response Service (ICARS)

If you have a clinical query about MMR that is not covered here, please contact england.swicars@nhs.net
• In line with the eligibility guidance above, the first dose of MMR should only be given prior to the scheduled age if the patient is due to travel to an endemic country, or where there is a local outbreak (see below). There may be other circumstances where a clinician deems vaccination outside the routine schedule to be appropriate and this will need to be assessed by a clinician on a case-by-case basis.

• We understand that the current outbreak in the West Midlands has been concerning for parents. However, the South-West region is not currently considered an outbreak area and the focus should therefore be on ensuring all individuals are fully vaccinated against MMR in line with the routine schedule. It should be noted that even in the West Midlands region only children who have been a close contact for someone confirmed with measles are currently being vaccinated outside of the routine schedule. If an outbreak is identified in your local area and individuals are deemed eligible for an early MMR vaccine, they will be contacted by the Health Protection Team directly.

• We would recommend ensuring that close family members are up to date with their MMR vaccine and to provide them with information about signs and symptoms of the disease: Measles - NHS (www.nhs.uk). We obviously recommend avoiding contact with anyone with suspected symptoms.

• To confirm from the Green Book of Immunisation - Chapter 21 Measles p.10, there is no upper age limit for MMR vaccines but there may be some individual circumstances to consider for patients based on their age or previous vaccination history.

• Furthermore, the national team have advised in light of the national focus on MMR vaccinations and in anticipation of further contact from the public, to refer to the above guidance to support assessing the prioritisation by age and relative risk of those needing vaccinations and that the emphasis should be on vaccinating those born after the advent of the MMR vaccination programme (before October 1988). There will also be the need to have individual conversations with patients about their vaccination history for those who have come from abroad and/or working in a health care setting – further information can be found in the Green Book chapter linked above.
For children aged <1 year during national incident

Please see guidance from the Green Book of Immunisation - Chapter 21 Measles p.9 which states:

The first dose of MMR should be given between 12 and 13 months of age (i.e. within a month of the first birthday). Immunisation before one year of age provides earlier protection in localities where the risk of measles is higher, but residual maternal antibodies may reduce the response rate to the vaccine. The optimal age chosen for scheduling children is therefore a compromise between risk of disease and level of protection. If a dose of MMR is given before the first birthday, either because of travel to an endemic country, or because of a local outbreak, then this dose should be ignored, and two further doses given at the recommended times between 12 and 13 months of age (i.e. within a month of the first birthday) and at three years, four months to five years of age (see Chapter 11).

In line with the above guidance, the first dose of MMR should only be given prior to the scheduled age if the patient is due to travel to an endemic country, or where there is a local outbreak (see below). There may be other circumstances where a clinician deems vaccination outside the routine schedule to be appropriate and this will need to be assessed by a clinician on a case-by-case basis.

We understand that the current outbreak in the West Midlands has been concerning for parents. However, the South-West region is not currently considered an outbreak area and the focus should therefore be on ensuring all individuals are fully vaccinated against MMR in line with the routine schedule. It should be noted that even in the West Midlands region only children who have been a close contact for someone confirmed with measles are currently being vaccinated outside of the routine schedule. If an outbreak is identified in your local area and individuals are deemed eligible for an early MMR vaccine, they will be contacted by the Health Protection Team directly.

We would recommend ensuring that close family members are up to date with their MMR vaccine and to provide them with information about signs and symptoms of the disease: Measles - NHS (www.nhs.uk). We obviously recommend avoiding contact with anyone with suspected symptoms.
Second dose for children aged >18 months

Please see guidance from the Green Book of Immunisation - Chapter 21 Measles p.9 which states:

A second dose is normally given before school entry but can be given routinely from eighteen months. Maternal antibodies may reduce the response to the first dose of vaccination up to the age of 18 months. To provide additional protection to those who fail to respond to the first dose, therefore, the second dose should not routinely be given below 18 months.

Where protection against measles is urgently required, a second dose can be given from one month after the first. If the child is given the second dose at less than 15 months of age, then another routine dose (a third dose) should be given after 18 months in order to ensure full protection, if the child is given the second dose from 15 months of age, no further routine doses are required.

In line with the above guidance, the second dose of MMR should only be given prior to the scheduled age if protection against measles is urgently required. In these circumstances an assessment will be needed by a clinician on a case-by-case basis to determine whether a vaccination outside the routine schedule is appropriate.

We understand that the current outbreak in the West Midlands has been concerning for parents. However, the South-West region is not currently considered an outbreak area and the focus should therefore be on ensuring all individuals are fully vaccinated against MMR in line with the routine schedule. It should be noted that even in the West Midlands region only children who have been a close contact for someone confirmed with measles are currently being vaccinated outside of the routine schedule. If an outbreak is identified in your local area and individuals are deemed eligible for an early MMR vaccine, they will be contacted by the Health Protection Team directly.

We would recommend ensuring that close family members are up to date with their MMR vaccine and to provide them with information about signs and symptoms of the disease: Measles - NHS (www.nhs.uk). We obviously recommend avoiding contact with anyone with suspected symptoms.
Single measles, mumps and rubella vaccines

The general advice we provide is that if the individual (or parents/carer) has had single measles, mumps and rubella vaccines and is open to having another MMR combined vaccine then we would recommend they receive this to consider them fully immunised in the UK.

1. Information on single doses of Measles Mumps and Rubella can be found here: Measles, mumps, rubella (MMR): use of combined vaccine instead of single vaccines - GOV.UK (www.gov.uk):
   - Single vaccines imported into this country haven’t been independently tested for potency and toxicity. We have evidence that some of the single vaccines are less effective or less safe than MMR.
   - No evidence for single vaccines
     Using single vaccines for the diseases would be experimental. It’s unclear how long a gap to leave between each vaccines, as there’s no evidence on giving the vaccines separately. No country recommends vaccination with the 3 separate vaccines.

   Further benefits include:
   - Avoiding any delay between injections that could risk illness
   - Reducing discomfort for your child
   - Reducing the number of appointments needed

2. The national team have advised:
   If an individual is missing any component of the vaccine (for example has only received an MR vaccine and is missing the mumps component), then we would recommend offering an MMR vaccine. It is important to cover all three diseases (measles, mumps & rubella) and MMR is the best way to ensure this. Measles, mumps or rubella monovalent vaccines are not licensed in the UK and evidence shows better uptake with strong evidence for the safety and effectiveness of MMR vaccine.

   For individuals who have received vaccines outside of the UK immunisation schedule (e.g., privately obtained unlicensed vaccines) a risk assessment and a discussion with the individual in question about their vaccine history is advisable. If the source or efficacy is questionable, then revaccination with MMR may be recommended. If, however individuals have been vaccinated in line with the UK schedule and with vaccines from trusted sources (e.g., adults born in UK who had single measles or rubella vaccines as part of the routine schedule before MMR was introduced in 1988, or individuals born or brought up abroad where different combinations were used but all three components have been covered), then this is sufficient and no MMR offer would be required.

3. The NHS website states the following MMR (measles, mumps and rubella) vaccine - NHS (www.nhs.uk):
   Some private clinics in the UK offer single vaccines against measles, mumps and rubella, but these vaccines are unlicensed. This means there are no checks on their safety and effectiveness. The NHS does not keep a list of private clinics.

4. GOV.UK has more about why the NHS uses a combined vaccine.