



**UKHSA** publications gateway number: GOV-19432

# Measles, mumps rubella and varicella (MMRV) vaccine Patient Group Direction (PGD)

This PGD is for the administration of measles, mumps, rubella and varicella (MMRV) vaccine to individuals aged between one year and under 6 years of age for routine immunisation, or from 9 months of age if early protection is required against varicella.

This PGD is for use by registered healthcare practitioners identified in <u>section 3</u>, subject to any limitations to authorisation detailed in <u>section 2</u>.

Reference no: MMRV vaccine PGD

Version no: v1.0

Valid from: 1 January 2026 Review date: 31 May 2028

Expiry date: 30 November 2028

The UK Health Security Agency (UKHSA) has developed this PGD to facilitate the delivery of publicly funded immunisation in England in line with national recommendations.

Those using this PGD must ensure that it is organisationally authorised and signed in <u>section 2</u> by an appropriate authorising person, relating to the class of person by whom the product is to be supplied, in accordance with Human Medicines Regulations 2012 (HMR2012)<sup>1</sup>. **The PGD is not legal or valid without signed authorisation in accordance with <u>HMR2012 Schedule 16 Part 2</u>.** 

Authorising organisations must not alter, amend or add to the clinical content of this document (sections 4, 5 and 6); such action will invalidate the clinical sign-off with which it is provided. In addition, authorising organisations must not alter section 3 (Characteristics of staff). Sections 2 and 7 can be edited within the designated editable fields provided, but only for the purposes for which these sections are provided, namely the responsibilities and governance arrangements of the NHS-commissioned service using the PGD. The fields in section 2 and 7 cannot be used to alter, amend to or add to the clinical content. Such action will invalidate the UKHSA clinical content authorisation which is provided in accordance with the regulations. The legal validity of this PGD is contingent on those authorising section 2 and 7 complying with the above.

Operation of this PGD is the responsibility of commissioners and service providers. The final authorised copy of this PGD should be kept by the authorising organisation completing section 2 for 25 years after the PGD expires. Provider organisations adopting authorised versions of this PGD should also retain copies for the periods specified above.

Individual practitioners must be authorised by name, under the current version of this PGD before working according to it.

Practitioners and organisations must check that they are using the current version of the PGD. Amendments may become necessary prior to the published expiry date. Current versions of UKHSA PGD templates for authorisation can be found from: <a href="Immunisation patient group direction">Immunisation patient group direction</a> (PGD) templates.

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<sup>&</sup>lt;sup>1</sup> This includes any relevant amendments to legislation

Any concerns regarding the content of this PGD should be addressed to: <a href="mailto:immunisation@ukhsa.gov.uk">immunisation@ukhsa.gov.uk</a>

Enquiries relating to the availability of organisationally authorised PGDs and subsequent versions of this PGD should be directed to [england.londonimms@nhs.net]

### **Change history**

Version	Change details	Date
v1.0	New UKHSA PGD template to support the delivery of the national combined measles, mumps, rubella and varicella immunisation programme to eligible children between the ages of one and under 6 years of age.	18 November 2025

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### 1. PGD development

This PGD has been developed by the following health professionals on behalf of the UKHSA:

Developed by:	Name	Signature	Date
Pharmacist (Lead Author)	Christina Wilson Lead Pharmacist - Immunisation Programmes –UKHSA	Cluchun	18 November 2025
Doctor	Dr Vanessa Saliba Consultant Medical Epidemiologist, Immunisation and Vaccine Preventable Diseases Division, UKHSA	Glal-be	18 November 2025
Registered Nurse (Chair of Expert Panel)	David Green Nurse Consultant Immunisation Programmes –UKHSA	Dagen.	18 November 2025

This PGD has been peer reviewed by the UKHSA Immunisations PGD Expert Panel in accordance with the UKHSA PGD and Protocol Policy. It has been ratified by the UKHSA Medicines Governance Committee.

### **Expert Panel (continued overleaf)**

Name	Designation	
Dr Nicholas Aigbogun		
Jess Baldasera	Health Protection Practitioner, North East Health Protection Team, Regions Directorate, UKHSA	
Helen Beynon	Clinical Advisor, Immunisation Clinical Advice Response Service (CARS), NHS England – London	
Alison Campbell	Screening and Immunisation Coordinator, Clinical, NHS England – Midlands	
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Jane Freeguard	Deputy Director of Vaccination – Medicines and Pharmacy, NHSE	
Rosie Furner	Advanced Specialist Pharmacist – Medicines Governance (Patient Group Directions and Medicines Mechanisms), NHS Specialist Pharmacist Services (SPS)	
Ed Gardner	Advanced Paramedic Practitioner/Emergency Care Practitioner, Primary Care Based, Southborne Surgery	
Shilan Ghafoor	Lead Medicines Governance Pharmacist, Medicines Governance, UKHSA	
Michelle Jones	Principal Medicines Optimisation Pharmacist, NHS Bristol, North Somerset and South Gloucestershire Integrated Care Board	
Elizabeth Luckett	Senior Screening and Immunisation Manager, Screening and Immunisation Team – Kent and Medway, NHS England – South East	
Dr Vanessa MacGregor	Consultant in Communicable Disease Control, East Midlands Health Protection Team, UKHSA	

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Lesley McFarlane	Lead Immunisation Nurse Specialist, Immunisation Programmes – UKHSA	
Briony Mason	Vaccination Manager and Professional Midwifery Advocate, Vaccination and Screening, NHS England – West Midlands	
Tushar Shah	Lead Pharmacy Adviser, NHS England – London	

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### 2. Organisational authorisation

The PGD is not legally valid until it has had the relevant organisational authorisation.

The fields in this section cannot be used to alter, amend or add to the clinical or other PGD content (sections 3 to 6 inclusive). Such action will invalidate the UKHSA clinical content authorisation which is provided in accordance with the regulations. See page 1 for full details.

It is the responsibility of the organisation that has legal authority to authorise the PGD, to ensure that all legal and governance requirements are met. The authorising body accepts governance responsibility for the appropriate use of the PGD.

NHS England – London authorises this PGD for use by the services or providers listed below:

Authorised for use by the following organisations and/or services
This PGD must only be used by specified registered healthcare professionals working for providers that are directly commissioned by NHS England - London, or who are administering vaccinations as part of a national immunisation programme, and who have been named and authorised to practice under it.
Limitations to authorisation
None

Organisational approval (legal requirement)			
Role	Name	Sign	Date
Chief Nurse, NHS England – London	Karen Bonner		26/11/2025

Additional signatories according to locally agreed policy			
Role	Name	Sign	Date
Director of Nursing, NHS England – London	Gwen Kennedy	J4 Lannedy	25/11/2025
Lead Pharmacy Adviser, NHS England – London	Tushar Shah	Tesnah	25/11/2025

Local enquiries regarding the use of this PGD may be directed to [england.londonimms@nhs.net

<u>Section 7</u> provides a practitioner authorisation sheet. Individual practitioners must be authorised by name to work to this PGD. Alternative practitioner authorisation sheets may be used where appropriate in accordance with local policy but this should be an individual agreement or a multiple practitioner authorisation sheet as included at the end of this PGD.

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#### 3. Characteristics of staff

# Qualifications and professional registration

All practitioners should only administer vaccinations where it is within their clinical scope of practice to do so. Practitioners must also fulfil the <u>additional requirements</u> and <u>continued training requirements</u> to ensure their competency is up to date, as outlined in the sections below.

Practitioners working to this PGD must also be one of the following currently registered professionals who can legally supply and administer under a PGD:

- nurses and midwives currently registered with the Nursing and Midwifery Council (NMC)
- pharmacists and pharmacy technicians currently registered with the General Pharmaceutical Council (GPhC) (Note: This PGD is not relevant to privately provided community pharmacy services)
- dieticians, occupational therapists, paramedics, physiotherapists and podiatrists currently registered with the Health and Care Professions Council (HCPC)

Check <u>section 2</u> (Limitations to authorisation) to confirm whether all practitioners listed above have organisational authorisation to work under this PGD.

## Additional requirements

Additionally, practitioners:

- must be authorised by name as an approved practitioner under the current terms of this PGD before working to it
- must have undertaken appropriate training for working under PGDs for supply/administration of medicines
- must be competent in the use of PGDs (see <u>NICE Competency framework</u> for health professionals using PGDs)
- must be familiar with the vaccine product and alert to changes in the Summary of Product Characteristics (SPC), Immunisation Against Infectious Disease (the <u>Green Book</u>), and national and local immunisation programmes
- must have undertaken training appropriate to this PGD as required by local policy and in line with the <u>National Minimum Standards and Core</u> <u>Curriculum for Immunisation Training</u>
- must be competent to undertake immunisation and to discuss issues related to immunisation
- must be competent in the handling and storage of vaccines, and management of the cold chain
- must be competent in the appropriate administration method for the vaccines listed in this PGD
- must be competent in the recognition and management of anaphylaxis
- must have access to the PGD and associated online resources
- should fulfil any additional requirements defined by local policy

The individual practitioner must be authorised by name, under the current version of this PGD before working according to it.

## Continued training requirements

Practitioners must ensure they are up to date with relevant issues and clinical skills relating to immunisation and management of anaphylaxis, with evidence of appropriate Continued Professional Development (CPD).

Practitioners should be constantly alert to any subsequent recommendations from the UKHSA, NHS England and other sources of medicines information.

Note: The most current national recommendations should be followed but a Patient Specific Direction (PSD) may be required to administer the vaccine in line with updated recommendations that are outside the criteria specified in this PGD.

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### 4. Clinical condition or situation to which this PGD applies

# Clinical condition or situation to which this PGD applies

Indicated for the active immunisation of individuals from one year of age for routine immunisation, or from 9 months of age if early protection is required against varicella and recommendations given in the <a href="mailto:measles">measles</a>, <a href="mailto:mumps">mumps</a>, <a href="mailto:mumps">rubella</a> and <a href="mailto:varicella">varicella</a> chapters of Immunisation Against Infectious Disease: the Green Book.

**Note**: the <u>appendix</u> provides an overview of the scope of this and the <u>MMR</u> <u>PGD</u>.

#### Criteria for inclusion

### 1. Routine MMRV programme

- children aged under one year old on 31 December 2025 with a date
  of birth (DOB) on or after 1 January 2025 are eligible for 2 doses of
  MMRV. The first MMRV dose should be offered on or after (not
  before) the child's first birthday and the second dose at 18 months
  of age
- children aged from one year to 18 months on 31 December 2025
   (DOB on or after 1 July 2024 to 31 December 2024) are eligible for 2
   doses of MMRV. The first dose is given at the new 18 month
   appointment and the second at the 3 year 4 month routine
   appointment (these children should have already received their first
   dose of MMR at one year of age)
- children aged from 18 months to under 3 years 4 months on 31
  December 2025 (DOB on or after 1 September 2022 to 30 June
  2024), should receive one dose of MMRV at their 3 year 4 month
  routine appointment instead of MMR (these children should have
  already received their first dose of MMR at one year of age)

### 2. Selective MMRV catch-up programme

A one-dose MMRV selective catch-up programme will be delivered between 1 November 2026 to 31 March 2028 (or other end date as subsequently communicated by NHS England).

children aged from 3 years 4 months to under 6 years on 31
December 2025 (DOB on or after 1 January 2020 to 31 August
2022) without a history of chickenpox disease or 2 doses of varicella
vaccine are eligible for one dose of MMRV

To provide urgent measles or varicella protection, or opportunistic MMR catch up

- 3. when the child is in one of the eligible cohorts as outlined above and protection is indicated as part of a response to a measles outbreak or for travel to a measles endemic area
- 4. when an individual aged 9 months of age and over requires urgent protection against either varicella or measles, such as during an outbreak and is eligible for vaccination with the varicella vaccine (refer to the <u>varicella vaccine PGD</u>) or for vaccination with MMR (refer to the <u>MMR PGD</u>) but no stock of either is available
- 5. when an individual aged 9 months of age and over requires both MMR and monovalent varicella vaccination at the same time, it is more pragmatic to give the MMRV vaccine

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Criteria for inclusion (continued)	6. when an individual not eligible for MMRV requires an opportunistic dose of MMR vaccine to bring their vaccination history up to date but there is no stock of the MMR vaccine available	
Criteria for exclusion <sup>2</sup>	Individuals for whom no valid consent has been received (or for whom a best-interests decision in accordance with the Mental Capacity Act 2005, has not been obtained). For further information on consent, see <a href="chapter 2">chapter 2</a> of the Green Book. Several resources are available to inform consent (see <a href="written information to be given to individual">written information to be given to individual</a> , parent or carer section).	
	Individuals who:	
	<ul> <li>have had a confirmed anaphylactic reaction to a previous dose of any measles, mumps, rubella or varicella containing vaccine or to any components of the vaccine. These include neomycin and sorbitol (refer to relevant <a href="SPC">SPC</a>s)</li> <li>were born on or before 31 December 2019, except those who require vaccination under points 4, 5 or 6 of the <a href="criteria for inclusion">criteria for inclusion</a> above</li> </ul>	
	are under 9 months of age	
	are known to be pregnant	
	have a primary or acquired immunodeficiency state (see the Green Book chapter 6 for more detail)	
	<ul> <li>are on current or recent high dose immunosuppressive or biological therapy (see the Green Book <u>chapter 6</u> for more detail)</li> </ul>	
	<ul> <li>have received a live varicella-containing vaccine or yellow fever vaccine in the preceding 4 weeks, unless protection against measles is rapidly required (see <u>drug interactions</u>)</li> </ul>	
	<ul> <li>have received blood products, such as immunoglobulins, in the preceding 3 months, unless protection against measles is rapidly required (see <u>drug interactions</u>)</li> </ul>	
	<ul> <li>are awaiting reading of a tuberculin (Mantoux) skin test, unless protection against measles is rapidly required (see <u>drug interactions</u>)</li> </ul>	
	<ul> <li>are suffering from acute severe febrile illness (the presence of a minor infection is not a contraindication for immunisation)</li> </ul>	
	<ul> <li>have received 2 doses of MMRV, at an appropriate age to be effective (see also dose and frequency of administration – early vaccination due to travel, outbreak or contact with a probable or confirmed case of measles)</li> </ul>	
Cautions including any relevant action to be taken	Facilities for management of anaphylaxis should be available at all vaccination sites (see <a href="mailto:chapter8">chapter 8</a> of the Green Book) and advice issued by the <a href="Resuscitation Council UK">Resuscitation Council UK</a> .	
	Individuals who are immunosuppressed or who are living with HIV, who are not contraindicated to receive this live vaccine (see the Green Book <u>chapter</u> 6) may not make a full antibody response and revaccination upon cessation of treatment or clinical recovery may be required. This should be discussed with the appropriate specialist and the repeat dose administered under a PSD.	
(continued over page)	If idiopathic thrombocytopenic purpura (ITP) has occurred within 6 weeks of the first dose of MMRV, then blood should be taken and tested for measles antibodies before a second dose is given. Serum should be sent to the	

 $<sup>^2</sup>$  Exclusion under the PGD does not necessarily mean the medication is contraindicated, but it would be outside its remit and another form of authorisation will be required

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UKHSA Virus Reference Department, which offers free, specialised

# Cautions including any relevant action to be taken

(continued)

serological testing for such children. If the results suggest incomplete immunity against measles, then a second dose of MMRV is recommended.

The presence of a neurological condition is not a contraindication to immunisation but if there is evidence of current neurological deterioration, deferral of vaccination may be considered, to avoid incorrect attribution of any change in the underlying condition. The risk of such deferral should be balanced against the risk of the preventable infection, and vaccination should be promptly given once the diagnosis or the expected course of the condition (or both) become clear. There will be very few occasions when deferral of immunisation is required. Deferral leaves the child unprotected and so the period of deferral should be minimised, with immunisation commencing as soon as possible. If a specialist recommends deferral, this should be clearly communicated to the individual's primary care provider, who must be informed as soon as the child is fit for immunisation. Children with a personal or close family history of seizures should still be given the MMRV vaccine.

Priorix Tetra® and ProQuad® both contain a source of phenylalanine. Though phenylalanine may be harmful to individuals with phenylketonuria (PKU), such individuals (or their parent or carer) will be well versed as to the amounts of phenylalanine tolerable in their diet. The National Society for Phenylketonuria (NSPKU) advise the amount of phenylalanine contained in vaccines is negligible and therefore strongly advise individuals with PKU to take up the offer of immunisation.

Syncope (fainting) can occur following, or even before, any vaccination especially in adolescents as a psychogenic response to the needle injection. This can be accompanied by several neurological signs such as transient visual disturbance, paraesthesia and tonic-clonic limb movements during recovery. It is important that procedures are in place to avoid injury from faints.

## Action to be taken if the patient is excluded

Individuals who have had a confirmed anaphylactic reaction to a previous dose of MMRV vaccine or to any components of the vaccine should be referred to a clinician for specialist advice and appropriate management.

Individuals who are pregnant should be advised to avoid contact with known or suspected cases of measles, mumps, rubella or varicella infection and report any rash illness or contact with rash illness to their GP or midwife (or both). Women who are lacking 2 documented doses of MMR should be immunised after their pregnancy, at the earliest opportunity and before any further pregnancies. Note: MMRV can be given to breast-feeding mothers without any risk to their baby.

Individuals who have a primary or acquired immunodeficiency state or who are currently, or were recently, on high dose immunosuppressive or biological therapy (see <a href="chapter 6">chapter 6</a>) should consult the appropriate specialist regarding the individual's immune status and suitability for receiving live MMRV vaccine. Where administration of MMRV is advised, a PSD will be required. Further information to guide suitability of the MMRV vaccine for individuals living with HIV is available in Table 21.2 (CD4 count), of the Green Book chapter on <a href="mailto:measles">measles</a>.

Individuals who have been immunised against varicella or yellow fever within the last 4 weeks, or received blood products in the preceding 3 months, and do not require rapid protection against measles, mumps or rubella, should defer immunisation until the appropriate minimum interval has been observed (see <u>drug interactions</u> section).

Individuals who are awaiting reading of a tuberculin (Mantoux) test should delay vaccination with MMRV until the skin test has been read, unless protection against measles is required urgently.

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### Action to be taken if the Individuals aged 6 years and over on 1 January 2026, with a DOB on or before 31 December 2019 are not routinely in scope for inclusion with the patient is excluded MMRV programme. If the individual has not had 2 doses of MMR vaccine, (continued) they should complete the course with the MMR vaccine. Refer to the MMR PGD. The main exception to this is in cases (as per criteria for inclusion) where there is no stock of MMR or of the monovalent varicella vaccine accessible and urgent protection is required, such as in post-exposure measles prophylaxis or where an opportunistic dose of MMR is required for an unimmunised or partially immunised individual. In such exceptions, MMRV may be given under this PGD. The other main exception is in the rare event that an individual is identified as requiring both varicella and MMR vaccination. It is considered pragmatic to offer MMRV in such circumstances. In case of postponement due to acute severe febrile illness, advise when the individual can be vaccinated and ensure another appointment is arranged. Seek appropriate advice from the local Screening and Immunisation Team, local Health Protection Team or the individual's clinician as appropriate. The risk to the individual of not being immunised must be taken into account. Document the reason for exclusion and any action taken in the individual's clinical records. Inform or refer to the GP or a prescriber as appropriate. Advise the individual, parent or carer about the protective effects of the Action to be taken if the individual, parent or vaccine, the risks of infection and potential complications. carer declines Document the advice given and the decision reached. treatment Inform or refer to the GP or a prescriber as appropriate. **Arrangements for** As per local policy referral for medical advice

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### 5. Description of treatment

Name, strength and formulation of drug	Measles, mumps rubella and varicella vaccine (live):	
Tormulation of drug	ProQuad® powder and solvent for suspension for injection	
	Priorix Tetra® powder and solvent for solution for injection	
Legal category	Prescription only medicine (POM)	
Black triangle▼	No.	
Off-label use	The national MMRV progrmme is scheduled at 12 and 18 months of age. This interval of 6 months is off label, as the SPCs recommend a minimum interval of one month (6 weeks for Priorix Tetra®) and preferably 3 months between doses, but represents national guidance.	
	The vaccines should be stored according to the conditions detailed in the storage section below. However, in the event of an inadvertent or unavoidable deviation of these conditions, refer to Vaccine Incident Guidance. Where vaccines are assessed in accordance with these guidelines as appropriate for continued use, this would constitute off-label administration under this PGD.	
	Where a vaccine is recommended off-label consider, as part of the consent process, informing the individual, parent or carer that the vaccine is being offered in accordance with national guidance but outside of product licence.	
Route and method of administration	The vaccine must be reconstituted in accordance with the manufacturer's instructions prior to administration.	
	Administer by intramuscular injection, preferably into the anterolateral aspect of the thigh in infants under one year of age. The deltoid muscle of the upper arm may be used in individuals over one year of age.	
	When administering at the same time as other vaccines, care should be taken to ensure that the appropriate route of injection is used for all the vaccinations. The vaccines should be given at separate sites, preferably into different limbs. If given into the same limb, they should be given at least 2.5cm apart. The site at which each vaccine was given should be noted in the individual's records.	
	Individuals with bleeding disorders may be vaccinated intramuscularly if, in the opinion of a clinical familiar with the individual's bleeding risk, vaccines or similar small volume intramuscular injections can be administered with reasonable safety by this route. Individuals on stable anticoagulation therapy, including individuals on warfarin who are up to date with their scheduled INR testing and whose latest INR was below the upper threshold of their therapeutic range, can be vaccinated via the intramuscular route. If the individual receives medication or other treatment to reduce bleeding, for example treatment for haemophilia, intramuscular vaccination can be scheduled shortly after such medication or other treatment is administered. A fine needle (equal to 23 gauge or finer calibre such as 25 gauge) should be used for the vaccination, followed by firm pressure applied to the site (without rubbing) for at least 2 minutes. The individual, parent or carer should be informed about the risk of haematoma from the injection.	
(continued over page)	Both MMRV vaccines are licensed to be given subcutaneously, therefore a healthcare professional may determine this is a preferred route of administration for an individual with a bleeding disorder. Note fewer injection site reactions were reported with the intramuscular route compared with the subcutaneous route following administration of ProQuad <sup>®</sup> .	
(15asa svoi pago)	The vaccine should be visually inspected for foreign particulate matter and other variation of expected appearance prior to preparation and administration.	

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## Route and method of administration

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Should either occur, do not administer the dose and discard the vaccine in accordance with local procedures.

Upon reconstitution, ProQuad® forms a clear pale yellow to light pink liquid. Priorix® Tetra forms a clear peach to fuchsia pink solution.

The vaccine <a href="SPC">SPC</a> provides further guidance on preparation and administration.

### Dose and frequency of administration

Single 0.5ml dose per administration.

The dosing schedules below assume individuals have been immunised in line with the complete routine immunisation schedule, without undue delay.

Table 1: Routine MMRV programme and number of doses

	One dose schedule	2 dose schedule
DOB on or after 1		12 months
January 2025		and
-		18 months
DOB on or after 1 July		18 months
2024 to 31 December		and
2024		3 years 4 months
DOB on or after 1		
September 2022 to 30	3 years 4 months	
June 2024		

Table 2: Selective catch-up programme (1 November 2026 to 31 March 2028)

	One dose of MMRV*
DOB 1 January 2020 to 31 August 2022	Children without a history of chickenpox disease or 2 doses of varicella vaccination.
	There is no requirement to check the clinical history.

\*Notes: those who have had one or 2 doses of the varicella vaccine privately may still receive the catch up dose in line with the intervals outlined in <u>duration</u> of treatment.

MMRV is not required if a child has had 2 MMR vaccines and either a history of previous chickenpox infection or 2 doses of varicella vaccine. Those who require catch-up with MMR vaccination should be given up to 2 MMRV doses. See also special considerations and additional information.

### Incomplete immunisation history

Individuals from one year of age who have not received an MMR or MMRV vaccine should receive a total of 2 doses of MMR-containing vaccine appropriate to their age and be brought up to date at the earliest opportunity if routine appointments have been missed.

A child born on or after 1 January 2020 overdue their first dose of MMR at 12 months should be caught up using MMRV, as outlined in the MMRV <u>system</u> <u>letter</u>.

There are no safety concerns if a child is given a total of 3 MMR-containing vaccines.

See the <u>vaccination of individuals with uncertain or incomplete immunisation</u> status guidance.

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Dose and frequency of administration	Early vaccination due to travel, outbreak or contact with a probable or confirmed case of measles or varicella	
(continued)	The MMRV vaccine can be given from 9 months of age when early protection is required against varicella. MMRV should not be given to individuals below 9 months of age. Vaccination for travel or measles outbreaks in this age group should be with MMR (see also <a href="mailto:appendix">appendix</a> ).	
	Doses given before 12 months of age should be discounted. Second doses should be given at least one month after the first. If the second dose is given before 15 months of age, a further dose from 18 months of age is required.	
	See special considerations and additional information (early vaccination due to travel, outbreak or contact with a probable or confirmed case of measles) for further information.	
	In cases of post-exposure measles or varicella vaccination, the dose should ideally be given within 3 days of exposure to maximise vaccine efficacy.	
Duration of treatment	Up to 2 doses of 0.5ml at the recommended interval (see dose and frequency of administration above).	
	Doses that are administered early (see above) or doses given within 4 weeks of previous yellow fever, live varicella-containing vaccine or within 3 months of receiving blood products may need to be repeated (see <a href="drug interactions">drug interactions</a> section and dose and frequency of administration above).	
Quantity to be supplied and administered	Single 0.5ml dose per administration.	
Supplies	Centrally purchased vaccines for the national immunisation programme for the NHS can only be ordered via ImmForm. Vaccines for use for the national immunisation programme are provided free of charge. National stock may also be used for catch-up vaccination of individuals of any age.	
	Protocols for the ordering, storage and handling of vaccines should be followed to prevent vaccine wastage (see the Green Book <u>chapter 3</u> ).	
Storage	Store between +2°C to +8°C. Store in original packaging in order to protect from light. Do not freeze.	
	ProQuad® must be administered immediately after reconstitution, to minimise loss of potency. Discard if the reconstituted vaccine is not used with 30 minutes.	
	Priorix Tetra® must be administered promptly following reconstitution. Vaccines that are not used immediately must be kept in the refrigerator. If not used within 24 hours, the vaccine must be discarded.	
	In the event of an inadvertent or unavoidable deviation of these conditions, vaccines that have been stored outside the conditions stated above should be quarantined and risk assessed for suitability of continued off-label use or appropriate disposal. Refer to <a href="Vaccine Incident Guidance">Vaccine Incident Guidance</a> .	
	Contact the vaccine manufacturer where more specific advice is required about managing a temperature excursion.	
Disposal	Follow local clinical waste policy and standard operating procedures to ensure safe and secure waste disposal.	
(continued over page)	Equipment used for immunisation, including used vials, ampoules, or discharged vaccines in a syringe or applicator, should be disposed of safely in a UN-approved puncture-resistant sharps box, according to local waste	

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### Disposal disposal arrangements and NHS England guidance (HTM 07-01): safe and sustainable management of healthcare waste. (continued) **Drug interactions** The immunological response may be diminished in those receiving immunosuppressive treatment. Vaccination is recommended even if the antibody response may be limited (see criteria for exclusion). MMRV may be given at the same time or at any time before or after other inactivated vaccines. MMRV may attenuate the response to other live vaccines; see Table 11.4 (recommended time intervals when giving more than one live attenuated vaccine) in chapter 11 of the Green Book. Where protection against measles is required rapidly, other live vaccines should be given at any interval. The response may be suboptimal if yellow fever and MMR-containing vaccines are co-administered or given within a 4 week interval; an additional dose of MMR should be considered. There are no concerns from giving the MMRV vaccine to a child who has already been vaccinated with the monovalent varicella vaccine. If protection against measles is urgently required, then the benefit of protection from the vaccine outweighs the potential interference with a tuberculin (Mantoux) test. In this circumstance, the individual interpreting the negative tuberculin test should be made aware of the recent MMRV vaccination when considering how to manage that individual. When MMRV is given within 3 months of receiving blood products, such as immunoglobulin, the response to the measles component may be reduced. This is because such blood products may contain significant levels of measlesspecific antibody, which could then prevent vaccine virus replication. Where possible, MMRV should be given at least one month before or deferred until 3 months after receipt of such products. If immediate measles protection is required in someone who has recently received a blood product, MMR vaccine should still be given. To confer longer-term protection, MMR should be repeated after 3 months. A detailed list of drug interactions associated with the MMRV vaccine is available from the product's SPC. Identification and Adverse reaction rates with ProQuad® are either similar to or less common management of after a second dose than after the first dose; incidence and severity of adverse adverse reactions reactions following a second dose with Priorix Tetra® are broadly similar. Adverse reactions are attributed to effective replication of the vaccine viruses, with subsequent mild illness. Events due to the measles component occur 6 to 11 days after vaccination. Events due to the mumps and rubella components usually occur 2 to 3 weeks after vaccination but may occur up to 6 weeks after vaccination. Adverse events due to the varicella component may occur up to a month following vaccination. Individuals with vaccine-associated symptoms are not infectious to others, although any varicella-type rash round the injection site should be covered. Transmission of varicella vaccine virus from immunocompetent vaccinees to immunocompromised close contacts has occasionally been documented, though the risk is low. Consider giving postexposure prophylaxis to immunosuppressed contacts where the vaccinee has a disseminated rash (see the varicella chapter of the Green Book). The most common adverse reactions are fever and injection site reactions including pain, swelling and erythema. Rash (including a measles-type and varicella-type rash) is also commonly reported. Malaise, fever or a rash (or a combination of these) most commonly occur about a week after immunisation, lasting around 2 to 3 days. (continued over page) Hypersensitivity reactions and anaphylaxis can occur but are very rare.

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# Identification and management of adverse reactions

(continued)

#### Rare and more serious events

Febrile seizures, benign and short lived in nature are the most commonly reported neurological event following immunisation with MMRV and more commonly after the first compared to the second dose. Seizures occur between day 5 and 12 following vaccination in around 1 in 1000 children vaccinated with MMRV. The absolute risk of febrile seizures remains low.

Encephalitis has been reported during post-marketing use of MMRV vaccines. In a few cases, fatal outcomes have been observed, especially in patients who were immunocompromised. Individuals, parents or carers should be instructed to seek prompt medical attention if they or their child experience symptoms suggestive of encephalitis such as loss or reduced levels of consciousness, convulsions or ataxia accompanied by fever and headache.

Arthropathy (arthralgia or arthritis) has also been reported to occur rarely after MMR immunisation, probably due to the rubella component. If it is caused by the vaccine, it should occur between 14 and 21 days after immunisation. Where it occurs at other times, it is highly unlikely to have been caused by vaccination. The incidence rate is higher and the reaction more marked in adult females, though such reactions are generally well tolerated.

ITP has occurred rarely following MMRV vaccination, usually within 6 weeks of the first dose and resolves spontaneously. The risk of developing ITP after MMRV vaccine is much less than the risk of developing it after infection with wild measles or rubella virus (see <a href="mailto:cautions">cautions</a>).

Further details on adverse reactions following MMRV vaccine can be found in the Green Book chapters on <u>measles</u>, <u>mumps</u>, <u>rubella</u> and <u>varicella</u>.

A detailed list of adverse reactions associated with the MMRV vaccine is available from the product's <u>SPC</u>.

### Reporting procedure of adverse reactions

Healthcare professionals and individuals, parents or carers are encouraged to report suspected adverse reactions to the Medicines and Healthcare products Regulatory Agency (MHRA) using the <u>Yellow Card reporting scheme</u> or by searching for MHRA Yellow Card in the Google Play or Apple App Store.

Any adverse reaction to a vaccine should be documented in the individual's record and the individual's GP should be informed.

### Written information to be given to individual or parent (or carer)

Offer the marketing authorisation holder's patient information leaflet (PIL) provided with the vaccine.

Priorix Tetra<sup>®</sup> PIL ProQuad<sup>®</sup> PIL

For resources in accessible formats and alternative languages, please visit Find Public Health resources. Where applicable, inform the individual, parent or carer that large print, Braille or audio CD PILs may be available from emc accessibility by providing the medicine name and product code number, as listed on the product's SPC.

Immunisation promotional material may be provided as appropriate:

- MMR for all
- pre-school immunisations: guide to vaccinations (2 to 5 years)
- measles: information for schools and healthcare centres
- measles outbreak resources

### Advice and follow up treatment

Inform the individual, parent or carer of possible side effects and their management.

(continued over page)

Advise about likely timing of and subsequent management of a fever.

Advise where relevant that pregnancy should be avoided for one month post

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### Advice and follow up treatment

(continued)

vaccination.

The individual, parent or carer should be advised to seek medical advice in the event of an adverse reaction and report this via the <u>Yellow Card reporting scheme</u>.

When administration is postponed, advise the individual, parent or carer when to return for vaccination.

Where applicable, advise the individual, parent or carer when the subsequent dose is due.

# Special considerations and additional information

Ensure there is immediate access to adrenaline (epinephrine) 1 in 1000 injection and access to a telephone at the time of vaccination.

All children with egg allergy should receive the MMRV vaccination as a routine procedure in primary care. Monovalent varicella vaccines and the varicella component of MMRV are not manufactured using eggs or egg-derived products. Although MMR-containing vaccines use egg-derived products in the manufacturing process, they are not used in the vaccine itself.

ProQuad® contains porcine gelatine.

Priorix® Tetra (GSK) does not contain porcine gelatine and can be offered as an alternative to ProQuad®. Health professionals should be aware of the need to order Priorix® Tetra when running clinics for relevant communities (see vaccines and porcine gelatine leaflet).

MMRV vaccine is recommended when protection against measles, mumps, rubella or varicella (or a combination of the 4) is required. MMRV vaccine can be given irrespective of a history of measles, mumps, rubella or varicella infection or vaccination. There are no ill effects from vaccinating those who are already immune. If there is doubt about an individual's MMRV immune status, MMRV vaccine should still be given.

Children with chronic conditions such as cystic fibrosis, congenital heart or kidney disease, failure to thrive or Down's syndrome are at particular risk from measles infection and should be immunised with an MMR-containing vaccine without delay.

## Early vaccination due to travel, outbreak or contact with a probable or confirmed case of measles

The response to MMRV in infants is sub-optimal where the vaccine has been given before one year of age. 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 of age. A dose of MMRV given before the first birthday should be discounted. 2 further doses of MMR-containing vaccine should be given at the recommended ages in accordance with the routine schedule (see dose and frequency of administration).

Children who have received one dose of MMRV at the routine age should have the second dose brought forward to at least one month after the first. If the child is given the second dose before 15 months of age, a further dose should be given from 18 months of age in order to ensure full protection.

Where applicable, the decision on when to vaccinate adults needs to take into consideration the past vaccination history, the likelihood of an individual remaining susceptible and the future risk of exposure and disease. See the Green Book chapters on <a href="mailto:measles">measles</a>, <a href="mailto:mumps">mumps</a>, <a href="mailto:rubella">rubella</a> and <a href="mailto:varicella">varicella</a> for more information.

(continued over page)

Children and adults coming from abroad may not have been immunised against measles, mumps, rubella or varicella. Unless there is a reliable history of appropriate immunisation, individuals should be assumed to be unimmunised. See <a href="chapter 11">chapter 11</a> for more information. Eligible individuals aged

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# Special considerations and additional information

(continued)

18 months and over who have not received MMRV, or who received a dose of measles-containing vaccine before the age of one should receive 2 doses at least one month apart. An individual who has already received one dose of MMR from their first birthday should receive a second dose of MMR-containing vaccine (as MMR or MMRV as appropriate for their date of birth) to ensure that they are protected.

## Individuals who have already received live (monovalent) varicella vaccine (including private market vaccination)

Individuals who have been previously immunised with 2 doses of the live varicella vaccine (see <u>varicella vaccine PGD</u>) should be considered to be fully protected against chickenpox. There is no requirement to check with the parent or carer for a history of varicella vaccination. MMRV may still be given to the child where the parent or carer expresses a wish for them to have the vaccine, even if 2 doses of monovalent varicella has been given (including under private market vaccination). However, no further additional protection is anticipated to be conferred from the additional MMRV doses.

Individuals who have previously received one dose of monovalent varicella vaccine require a further dose of varicella-containing vaccine in order to ensure full protection. This dose should be given as MMRV if the individual falls under the <u>inclusion criteria</u>. Otherwise, complete the course with monovalent varicella vaccine – see the <u>varicella vaccine PGD</u>.

Ensure an interval of at least 4 weeks is observed between live varicella vaccine and MMRV.

### **Chickenpox infection**

There is no requirement to check for a history of chickenpox infection from the parent or carer of a child who responds to the catch-up offer. There are no safety concerns from giving MMRV to a child who has already had chickenpox infection.

### Post exposure

Antibody responses to the rubella and mumps components of MMRV vaccine do not develop soon enough to provide effective prophylaxis after exposure to these infections. However, as vaccine-induced measles antibody develops more rapidly than that following natural infection, MMRV vaccine should be used to protect susceptible contacts from suspected measles. To be effective against measles or varicella exposure, the vaccine must be administered very promptly and ideally within 3 days.

Even where it is too late to provide effective post-exposure prophylaxis with MMRV, the vaccine can provide protection against future exposure. Therefore contact with suspected measles, mumps, rubella or varicella provides a good opportunity to offer MMRV vaccine to previously unvaccinated, eligible individuals.

If the individual is already incubating measles, mumps, rubella or varicella, MMRV vaccination will not exacerbate the symptoms. In these circumstances, individuals should be advised that a measles, mumps, rubella or varicella-like illness occurring shortly after vaccination is likely to be due to natural infection.

Immunoglobulin may be indicated for contacts of measles who are infants, immunosuppressed or pregnant or for some varicella contacts. Provision of immunoglobulin is not covered by this PGD (see <u>national measles guidelines</u> or <u>guidelines on post-exposure prophylaxis (PEP) for varicella or shingles</u> respectively).

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### Record

The practitioner must ensure the following is recorded:

- that valid informed consent was given or a decision to vaccinate made in the individual's best interests in accordance with the <u>Mental Capacity</u> Act 2005
- name of individual, address, date of birth and GP with whom the individual is registered (or record where an individual is not registered with a GP)
- name of immuniser
- name and brand of vaccine
- date of administration
- dose, form and route of administration of vaccine
- quantity administered
- batch number and expiry date
- anatomical site of vaccination
- advice given, including advice given if the individual is excluded or declines immunisation
- details of any adverse drug reactions and actions taken
- supplied via PGD

Records should be signed and dated (or password-controlled on e-records).

All records should be clear, legible and contemporaneous.

This information should be recorded in the individual's GP record. Where vaccine is administered outside the GP setting, appropriate health records should be kept and the individual's GP informed.

The local Child Health Information Systems (CHIS) team must be notified using the appropriate documentation or pathway as required by any local or contractual arrangement.

A record of all individuals receiving treatment under this PGD should also be kept for audit purposes in accordance with local policy.

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### 6. Key references

### **Key references**

#### **MMRV** vaccine

- Immunisation Against Infectious Disease: The Green Book <u>measles</u>, <u>mumps</u>, <u>rubella</u> and <u>varicella</u>, <u>chapter 6</u> and <u>chapter 11</u>
   <u>www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book</u>
- Introduction of a routine varicella (MMRV) vaccination programme (NHS system letter), published 31 October 2025
   <a href="https://www.gov.uk/government/publications/introduction-of-a-routine-varicella-mmrv-vaccination-programme">https://www.gov.uk/government/publications/introduction-of-a-routine-varicella-mmrv-vaccination-programme</a>
- Summary of Product Characteristics for ProQuad®, Merck Sharpe and Dohme, last updated 7 October 2025 https://www.medicines.org.uk/emc/product/101444/smpc
- Summary of Product Characteristics for Priorix Tetra<sup>®</sup>, GlaxoSmithKline, last updated 31 October 2025 https://www.medicines.org.uk/emc/product/101321/smpc
- JCVI: Childhood varicella vaccination programme: JCVI advice, 14 November 2023 <a href="https://www.gov.uk/government/publications/childhood-varicella-vaccination-programme-jcvi-advice-14-november-2023">https://www.gov.uk/government/publications/childhood-varicella-vaccination-programme-jcvi-advice-14-november-2023</a>
- MSD Medical Information, Personal communication (via email), 13 December 2023
- UKHSA national measles guidelines, last updated 25 July 2024. https://www.gov.uk/government/publications/national-measles-guidelines
- Vaccination of individuals with uncertain or incomplete immunisation status, UKHSA <u>www.gov.uk/government/publications/vaccination-of-individuals-with-uncertain-or-incomplete-immunisation-status</u>
- The National Society for Phenylketonuria (NSPKU) Medical Advisory Panel: Vaccines and PKU, issued 2 October 2024 <a href="https://nspku.org/download/vaccines-and-pku/">https://nspku.org/download/vaccines-and-pku/</a>

#### General

- NHSE Health Technical Memorandum 07-01: safe and sustainable management of healthcare waste, updated 7 March 2023
   www.england.nhs.uk/publication/management-and-disposal-of-healthcare-waste-htm-07-01/
- National minimum standards and core curriculum for vaccination training <u>www.gov.uk/government/publications/national-minimum-standards-and-core-</u> curriculum-for-immunisation-training-for-registered-healthcare-practitioners
- NICE Medicines Practice Guideline 2 (MPG2): Patient Group Directions, last updated March 2017
   www.nice.org.uk/guidance/mpg2
- NICE MPG2 Patient group directions: competency framework for health professionals using patient group directions, updated January 2018 www.nice.org.uk/guidance/mpg2/resources
- UKHSA Immunisation Collection <a href="www.gov.uk/government/collections/immunisation">www.gov.uk/government/collections/immunisation</a>
- Vaccine Incident Guidance, last updated July 2022 <u>www.gov.uk/government/publications/vaccine-incident-guidance-responding-to-vaccine-errors</u>

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### 7. Practitioner authorisation sheet

### MMRV vaccine PGD v1.0 Valid from: 1 January 2026 Expiry: 30 November 2028

Before signing this PGD, check that the document has had the necessary authorisations in section 2. Without these, this PGD is not lawfully valid.

### **Practitioner**

By signing this PGD, you are indicating that you agree to its contents and that you will work within it. PGDs do not remove inherent professional obligations or accountability.

It is the responsibility of each professional to practice only within the bounds of their own competence and professional code of conduct.

I confirm that I have read and understood the content of this PGD and that I am willing and competent to work to it within my professional code of conduct.					
Name	Designation	Signature	Date		

### Authorising manager

I confirm that the practitioners named above have declared themselves suitably trained and competent to work under this PGD. I give authorisation on behalf of the following named organisation					
Name	Designation	Signature	Date		

### Note to authorising manager

Score through unused rows in the list of practitioners to prevent practitioner additions post managerial authorisation.

This authorisation sheet should be retained to serve as a record of those practitioners authorised to work under this PGD.

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## Appendix: PGD indications for use for MMR, MMRV and monovalent varicella vaccine, in accordance with the individual's age.

	6 to 9 months of age	9 months to less than 12 months of age	12 months of age and over
Monovalent varicella vaccine (V) PGD	Not recommended	Recommended vaccine for pre and post exposure to varicella	Recommended vaccine for pre and post exposure to varicella, where the individual is not eligible for the MMRV programme
MMR PGD	Indications for PGD unchanged:  • early vaccination for travel to a measles endemic area	Indications for PGD unchanged:  • early vaccination for travel to a measles endemic area  • post exposure	The individual is ineligible for the MMRV programme and either  MMR protection is required in line with the vaccination of individuals with uncertain or incomplete
	<ul> <li>post exposure prophylaxis for measles</li> </ul>	prophylaxis for measles	immunisation algorithm  or
	measles outbreaks	measles outbreaks	for travel, post exposure or outbreak
MMRV PGD	Not recommended	Alternative option for varicella pre and post-exposure, where Vaxelis® or Varilrix® is not available and protection is urgently required	Routine vaccination at 12 and 18 months for children born on or after 1 January 2025.  Individuals ineligible for MMRV, when MMR or monovalent varicella vaccine is not available* and who require urgent protection against MMR or V, such as in managing post-exposure varicella or measles outbreaks or administering an opportunistic catch-up dose of MMR vaccine.  Where an individual requires both varicella vaccine and MMR vaccine at the same time, even if they are not eligible for MMRV in the routine programme.

<sup>\*</sup>MMR vaccine will be available for administration outside of the routine childhood programme (for example, for catching up older individuals, where date of birth is on or before 31 December 2019, who have not received 2 doses of MMR and are not eligible for MMRV). Therefore, after 1 January 2026, providers are expected to maintain stock of MMR vaccine for those ineligible for MMRV.

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