

## Rash (Viral)

### Definition / Supporting Information

#### Definition

- A viral rash is a skin eruption whose aetiology is a systemic viral infection
- Rashes are very common with viral infections, and many viral infections can cause a rash in addition to other symptoms [[Patient](#)]

#### Aetiology

- Rashes and eruptions on the skin are often infectious; causes include:
  - Viruses
  - Bacteria
  - Parasites
  - Fungi
- May indicate non-infectious conditions:
  - Rheumatological
  - Immunological
  - Allergic
  - Medication-related

#### Common infectious causes

*More detail in Differential Diagnosis / Conditions section*

- Measles (see PHE Green Book Chapter 21 and Figure 1)
- Mumps (see PHE Green Book Chapter 23 and Figure 2)
- Rubella (see PHE Green Book Chapter 28 and Figures 3–4)
- Herpes simplex virus (HSV-1 / HSV-2) (see Figures 5–6)
- Roseola
- Chicken Pox (varicella zoster virus (VZV)) (see PHE Green Book Chapter 34 and Figure 7)
- Erythema infectiosum (see Figure 8)
- Molluscum Contagiosum (see Figure 9)
- Epstein-Barr virus (EBV)
- Enteroviral exanthems
- Hand, foot and mouth (Coxsackie virus) (see Figure 10)
- Viral urticaria
- Meningococcaemia / meningococcus infection
- Scarlet fever (see Figure 11)

**Keywords / also known as:** viral exanthem, contagious exanthem

## Essential History

### Ask about:

- Prodromal (first phase) symptoms, including:
  - Cough
  - Fever
  - Headache
  - Malaise (general feeling of discomfort / illness)
  - Red, watery eyes
- Runny nose (see also Rhinitis (Allergic))
- When the rash initially erupted (see also Rash (Infants and Older Children) / Rash (Neonatal))
- Distribution and progression of the rash
- Any known infectious exposures (eg, viruses / bacteria / parasites / fungi)
- Associated symptoms
- History of:
  - Medication use
  - Immunisation
  - Contact / exposure
  - Travel

## 'Red Flag' Symptoms and Signs

### Ask about:

- Rapid onset / spread of rash
- Duration of fever
  - Consider Kawasaki disease if fever persists beyond five days (or other causes of persistent fever, many of which are not infectious)
- History of immunosuppression (including full drug history)
- Features suggestive of dehydration or sepsis

### Look for:

- Prodromal symptoms / signs
- Signs of sepsis
- Signs of dehydration
- Any immediately life-threatening features, including:
  - Decreased level of consciousness (see Altered Conscious Level)
- Distribution and progression of the rash
- Blanching vs. non-blanching rashes
- Presence of petechiae / purpura (see Petechiae and Purpura (Bruising))
- Evidence of organ involvement
- Pathognomonic signs (eg, Pastia lines / Koplik spots)

## Differential Diagnosis / Conditions

- Clinical manifestations other than the rash must often be explored to distinguish one condition from another (eg, infectious vs. non-infectious)
- Allergic and immune-complex conditions (eg, arthritis) can mimic infectious rashes / eruptions on the skin, with some conditions (eg, eczema or hives (urticaria)) causing rashes that look similar to a viral rash
- Infectious rashes may have a viral, bacterial, fungal or parasitic aetiology
- Non-infectious rashes may have a medication-related, rheumatological, allergic, immunological, malignant or primary dermatological aetiology

### Infectious rashes (may include):

- Measles (see PHE Green Book Chapter 21 and Figure 1)
  - Highly contagious
  - Transmitted via respiratory droplets or by airborne transmission
  - Typical incubation period of 10 days
  - Pathognomonic Koplik spots appear in the buccal mucosa approximately two days prior to rash and increase until day two of rash
  - Erythematous macular rash starts on face and neck and spreads over the body becoming confluent and forming the characteristic morbilliform rash
  - Often associated with fever, cough, coryza and conjunctivitis
  - In the UK, measles is typically vaccinated against as part of the measles, mumps and rubella (MMR) vaccine in two doses, at 12 months and 3 years 4 months of age
  - A single dose of the MMR vaccine provides 97% protection against measles, which rises to 99% effective with two doses of the MMR vaccine (see PHE Green Book Chapter 11 and Chapter 21)
  - During the prodromal period it should be distinguished from:
    - Common respiratory viruses
      - Rhinoviruses
      - Parainfluenza
      - Influenza (see PHE Green Book Chapter 19)
      - Adenovirus
      - Respiratory syncytial virus infections
  - Fever is characteristically more pronounced than fever due to other respiratory viruses
  - Once rash has appeared it should be distinguished from:
    - Viral causes, including:
      - Varicella
      - Roseola (human herpesvirus 6 infection)
      - Erythema infectiosum (parvovirus B19 infection)
      - Enterovirus (hand-foot-and-mouth disease)
      - Rubella
    - Kawasaki disease
    - Meningococemia (see PHE Green Book Chapter 22)
    - Immunoglobulin A vasculitis

- Group A Streptococcus infection
- *Mycoplasma pneumoniae*
- Drug eruption
- Usually distinguished clinically by the characteristic progression of the rash (eg, subsequent brown coloration, blanching on pressure, and other clinical manifestations such as especially coryza and conjunctivitis)
- Mumps (see PHE Green Book Chapter 23 and Figure 2)
  - Transmission through direct contact with secretions from the respiratory tract
  - Typical incubation period of around 17 days
  - Classically characterised by parotid swelling (bilateral or unilateral)
  - < 10% of children will develop an associated exanthema – if present, tends to be pale pink maculopapular rash on the trunk
  - In up to 15% of cases Mumps causes meningism with associated headache, photophobia and neck stiffness
  - In the UK, mumps is typically vaccinated against as part of MMR vaccine in two doses at 12 months and 3 years 4 months of age
  - A single dose of the MMR vaccine provides between 61% and 91% protection – two doses are therefore recommended (see PHE Green Book Chapter 11 and Chapter 23)
  - Should be distinguished from viral pathologies
    - Coxsackie virus
    - Influenza A virus
    - Parainfluenza virus
    - Cytomegalovirus
    - Adenovirus
    - EBV
    - Varicella-zoster virus
- Rubella (see PHE Green Book Chapter 28 and Figures 3–4)
  - Transmission through direct or droplet contact from respiratory secretions
  - Typical incubation period of 14–21 days
  - Rash is erythematous discrete lesions and begins behind the ears before spreading down the body
  - May also be associated with low grade fever, coryza, mild conjunctivitis and posterior auricular / suboccipital lymphadenopathy but clinical illness is often mild
  - Rubella can cause severe foetal defects (congenital rubella syndrome) if a pregnant woman becomes infected
  - In the UK, rubella is typically vaccinated against as part of MMR vaccine in two doses at 12 months and 3 years 4 months of age
  - Two doses of the MMR vaccine provide between 95% and 100% protection against Rubella infection (see PHE Green Book Chapter 11 and Chapter 28)
  - Rubella is now very rare in the UK
  - Infectious and non-infectious causes may have similar rashes (eg, skin diseases and drug reactions)
    - Scarlet fever

- Parvovirus infections
- Roseola (human herpesviruses 6 / 7)
- Rash-associated enteroviral infections
- Infectious mononucleosis
- Mild and vaccine-associated measles
- Toxoplasmosis
- HSV-1 / HSV-2 (see Figures 5–6)
  - HSV-1 is mainly transmitted by oral-to-oral contact to cause oral herpes (which includes symptoms such as cold sores)
    - Can also cause genital herpes
  - HSV-2 is a sexually transmitted infection (STI) which causes genital herpes
  - HSV-1 and -2 can cause a wide variety of clinical syndromes influenced by age, host immune function, primary infection vs. reactivation and affected body site
  - In children, HSV-1 typically presents with painful vesicular lesions on the oral mucosa and palate (primary herpes gingivostomatitis), but may also present as a pharyngitis in older children
  - May cause a widespread vesicular rash in children with eczema known as eczema herpeticum
  - Can present as an infection of a nail bed of a finger / toe known as a herpetic whitlow
  - Herpes infections are most contagious when symptoms are present but can still be transmitted to others in the absence of symptoms
  - Reactivation of latent HSV tends to have preceding paraesthesia followed by tender grouped vesicular lesions at the vermilion border
  - In immunocompromised individuals or neonates HSV infection can be life threatening with disseminated illness including encephalitis, hepatitis, pneumonitis
- Roseola (human herpesvirus 6)
  - Human herpesvirus-6 (HHV-6) is the infectious agent
  - Transmission via secretions, most likely from an asymptomatic contact
  - Typical incubation period of 10 days
  - Typically begins with three to four days of high fever
  - Rash begins as the fever ends – erythematous maculopapular lesions classically on the trunk initially, may spare the face
  - Should be distinguished from:
    - Measles
    - Enterovirus
    - EBV
    - Rubella
    - Meningococemia
- Chicken pox (VZV) (see PHE Green Book Chapter 34 and Figure 7)
  - Varicella is an acute, highly infectious disease caused by the VZV
  - Initially spread via respiratory droplets, then via secretions from vesicular lesions once they erupt

- Incubation period can vary from 10–21 days
- 1–2 days of prodromal illness with fever and malaise
- Vesicular lesions appear in crops, often starting on the face and scalp – with new crops appearing for around seven days
- These lesions are often intensely itchy
- Lesions gradually dry and scab over and resolve over a few weeks
- In herpes zoster there are vesicular lesions occurring in a dermatomal pattern which are often painful with paraesthesia
- Virus can lie dormant in spinal nerve ganglia and become reactivated (herpes zoster, shingles) typically occurring in adults or immunocompromised children
- Reactivation (herpes zoster, VZV) can occur in both healthy and immunocompromised persons
- The chickenpox vaccine is not part of the current routine UK childhood immunisation schedule (see PHE Green Book Chapter 11)
- The vaccine is used to immunise people who may pass the infection on to someone who's at risk of serious complications from chickenpox (see PHE Green Book Chapter 34)
- Erythema infectiosum (parvovirus B19) (see Figure 8)
  - Caused by parvovirus B19
  - Contact with respiratory droplets
  - Typical incubation period of 7–10 days
  - Two to five days of prodromal fever, coryza, headache
  - Rash begins as erythematous cheeks with peri-oral and peri-orbital pallor giving a 'slapped cheek' appearance
  - Develops into maculopapular rash on trunk and extremities which fades to leave a 'reticular' lace-like rash
- Molloscum contagiosum (see Figure 9)
  - Benign, usually asymptomatic skin infection common in infants and children
  - Caused by a poxvirus; humans the only known source
  - Spread via direct contact or fomites (eg, objects / materials that can carry the virus, such as clothing and towels, bathing sponges and toys)
  - Discrete skin coloured papules with a classically umbilicated centre which can last for many months
  - Not associated with being systemically unwell
- EBV
  - Causes infectious mononucleosis
    - Many patients are asymptomatic, but may have low grade fever, prolonged malaise and fatigue and a sore throat with tonsillar exudates and enlargement
  - Skin involvement only seen in approximately 10% of patients
    - Widespread transient maculopapular non-itchy erythematous rash
  - A more intensely itchy rash may be seen in EBV infection after treatment with beta-lactam antibiotics (eg, amoxicillin)
- Enteroviral exanthems
  - Transmission via the faecal-oral route

- A number of enteroviruses are associated with epidemics of aseptic meningitis
- Clinical manifestations are widely variable
- There are over 50 types of enteroviruses affecting humans including many echovirus and coxsackie virus serotypes
- Maculopapular rashes are most common but there may also be vesicular, pustular, morbilliform, petechial or urticarial lesions
- Hand, foot and mouth (Coxsackie Virus) (see Figure 10)
  - Incubation period of approximately 5 days
  - Typically, 1–2 days of fever and sore throat followed by development of ulcers in the oral mucosa
  - Peeling of the fingers and toes is common
  - A rash then may develop on hands, feet and sometimes buttocks – small erythematous spots which develop into blisters
  - Maculopapular rashes are most common, but there may also be vesicular, pustular, morbilliform, petechial or urticarial lesions
  - Clinical manifestations vary widely
  - Over 50 types of enteroviruses affecting humans, including many echovirus and coxsackie virus serotypes
- Viral urticaria
  - The presence of urticarial skin lesions that are not associated with an allergic response, but with evidence of viral infection
  - Rashes are common with a wide variety of viral infections and many times the causative viruses are not identified
  - Usually lesions are self-limiting and don't require any treatment
- Important bacterial differentials include:
  - Meningococcal / Pneumococcal septicaemia (*Neisseria meningitidis* / *Streptococcus pneumoniae*) (see Meningitis (Bacterial) and Meningococcal Septicaemia and Meningitis (bacterial) and meningococcal septicaemia in under 16s: recognition, diagnosis and management [[NICE clinical guideline CG102](#)])
    - One of the most serious, contagious rash diseases
    - Transmission via respiratory droplets or direct / indirect oral contact
    - Incubation period of 1–10 days
    - Classical rash is a rapidly spreading non-blanching petechiae and / or purpura
    - Child will be unwell with fever, irritability, drowsiness and they may or may not have signs of meningism or shock – in the early stages the illness may mimic a viral infection
  - Scarlet Fever (*Streptococcus pyogenes*) (see Figure 11)
    - Rash caused by an erythrogenic exotoxin produced by some strains of Group A  $\beta$ -haemolytic streptococci (GABHS or *S. pyogenes*)
    - Initial influenza-like-illness with fever, sore throat and lymphadenopathy
    - Then develops a pinky-red 'sandpaper' rash over the trunk

- Important to distinguish streptococcal infections causing rash from staphylococcal infections causing similar manifestations
- *Staphylococcus aureus* produces a range of toxins, including an exfoliative toxin that may cause a scarlet fever-like rash with erythroderma and desquamation
- Differentiation is important to inform choice of antibiotic therapy, particularly with increasing prevalence of Community associated Methicillin-resistant *S. aureus* (CA-MRSA)
- May also develop a red swollen 'strawberry tongue'
- *S. aureus* / Group A Streptococcus
  - In erysipelas and cellulitis there will be areas of erythematous skin that is hot to touch, child may be febrile
  - Differential diagnoses associated with *S. aureus* skin infections, include impetigo, ecthyma, folliculitis, abscesses, erysipelas and cellulitis
  - Must consider *streptococcus spp.*
- *M. pneumoniae*
  - Typically causes respiratory infections, however, may have cutaneous manifestations associated with it
  - Approximately 10–15% of children will develop a maculopapular skin eruption on the trunk
  - With respiratory infections, chest radiograph findings may appear out of proportion to clinical findings
  - Other skin manifestations include erythema multiforme, urticarial rashes and vesicular / bullous rashes

### **Non-infectious rashes (may include):**

- Kawasaki Disease
  - Must be differentiated from scarlet fever, because coronary artery disease may be a complication that requires therapy in a significant number of children with Kawasaki disease (see 'Red Flag' Symptoms and Signs)
  - Should be considered in any child where the fever lasts > 5 days
  - Bilateral non-purulent conjunctival injection
  - Change in mucous membranes in the upper respiratory tract:
    - Injected pharynx
    - Dry cracked lips
    - Strawberry tongue
  - Change in the extremities:
    - Oedema
    - Erythema
    - Desquamation (late sign)
      - Polymorphous rash
      - Cervical lymphadenopathy
- Drug reactions
  - Take a comprehensive medication history including over the counter medications

- Rheumatological conditions
  - This may include conditions such as juvenile idiopathic arthritis, systemic lupus erythematosus, juvenile dermatomyositis
  - These conditions require a comprehensive systems review in the history and will require further investigation
- Malignancy
  - Malignant conditions such as leukaemia may present with a rash
  - Appearances of the rash can vary widely and so a comprehensive history is required including systems review



**Figure 1. Posterior view of a young child, revealing the extensive rash that had developed due to a measles infection. The image was captured on day three of the rash, which is usually when the rash manifests (*Credit: Centers for Disease Control and Prevention, [Public Health Image Library \(PHIL\)](#)*)**



**Figure 2. Anterior view of a child's neck, revealing bilateral swellings beneath the patient's jaw, which had been diagnosed as a case of mumps, causing the swelling of the parotid salivary glands (*Credit: Centers for Disease Control and Prevention, [Public Health Image Library \(PHIL\)](#)*)**



**Figure 3. Close view of a patient's abdominal skin, which exhibited a generalised macular rash that had resulted from a rubella, also known as German measles, or three day measles infection (*Credit: **Centers** for Disease Control and Prevention, [Public Health Image Library \(PHIL\)](#)*)**



**Figure 4. Right posterior-oblique view of a child's torso, revealing the skin rash, due to a case of rubella, otherwise referred to as German measles, or three day measles (Credit: Centers for Disease Control and Prevention, [Public Health Image Library \(PHIL\)](#))**



**Figure 5. Herpes simplex virus (HSV) infection**



**Figure 6. Close view of a young male patient's lips and tongue, upon which lesions are seen, caused by the herpes simplex virus (HSV), also known as a cold sore. This lesion is caused by HSV-1 (Credit: Centers for Disease Control and Prevention, [Public Health Image Library \(PHIL\)](#))**



Figure 7. Presentation of chickenpox (Credit: [James Heilman, MD](#) – Wikipedia, [CC-BY-SA-3.0](#))



Figure 8. Dorsal view of a young person's hands, exhibiting symptoms of erythema infectiosum, or fifth disease, including a blotchy red rash (Credit: Centers for Disease Control and Prevention, [Public Health Image Library \(PHIL\)](#))



Figure 9. Molluscum contagiosum (Credit: [Bart van Herk](#) – Wikipedia, [CC-BY-SA-3.0](#))



**Figure 10. Lesions caused by the Hand, Foot and Mouth Virus on a 11 month old (Credit: [David Midgley](#) – Wikipedia, [CC-BY-SA-3.0](#))**



**Figure 11. Close view of a patient's skin, revealing a scarlet fever rash on the forearm, due to group A Streptococcus bacteria (Credit: Centers for Disease Control and Prevention, [Public Health Image Library \(PHIL\)](#))**

## Investigations

To be undertaken by non-specialist practitioners (eg, General Practitioner (GP) Team):

- Most viral rashes will be diagnosed on clinical history and examination
- Simple blood tests such as full blood count, urea and electrolytes, liver function testing and c-reactive protein are often not indicated and clinical judgement should be used
- Rashes caused by suspected bacterial infections should prompt attempts to culture the relevant bacteria
  - Swabs of lesions should be taken in suspected impetigo
- HSV
  - Can be confirmed on viral swab of lesions
- EBV
  - Monospot test or EBV serology and polymerase chain reaction (PCR)
- Two clinical scoring tools which can help to identify individuals whom are more likely to have streptococcal infection: (see Sore throat (acute): antimicrobial prescribing [\[NICE guideline NG84\]](#))
  - FeverPAIN
    - Fever (during previous 24 hours)
    - Purulence (pus on tonsils)
    - Attend rapidly (within three days after onset of symptoms)
    - Severely Inflamed tonsils

- No cough or coryza (inflammation of mucus membranes in the nose)
- Centor criteria
  - May be used in primary care in those with sore throats to determine need for antibiotics; however, in young child or the immunocompromised throat swab for culture should always be considered)

To be undertaken by specialist practitioners (eg, Emergency Department / Paediatric Team(s)):

- Non-blanching petechiae
  - Any child presenting with fever with no mechanical explanation for their petechiae (eg, vomiting for petechiae in superior vena cava (SVC) distribution) should undergo routine blood tests including full blood count, C-reactive protein (CRP) test and clotting)
- Mumps
  - Clinical diagnosis may be confirmed by testing for IgM (mumps) antibody in saliva, and through use of PCR
- Measles
  - Clinical diagnosis, if suspected then Public Health England will require confirmatory testing of oral fluid
- Parvovirus B19
  - Does not normally require confirmatory testing in children but specific IgG and IgM should be considered in pregnant women to confirm infection due to potential impact on the developing fetus
- Bacterial rashes
  - If a bacterial infection suspected, then attempts should be made to culture the bacteria in order to get information on specific sensitivities (may involve blood culture, throat swab, skin swab as appropriate)
- Kawasaki Disease
  - Clinical diagnosis with no confirmatory test

## Treatment Approach

The following diagnoses, relevant to this Key Practice Point, are notifiable to local authority proper officers under the Health Protection (Notification) Regulations 2010 (see [PHE List of Notifiable Diseases](#)):

- Measles (see PHE Green Book Chapter 21)
- Meningococcal septicaemia (see PHE Green Book Chapter 22)
- Mumps (see PHE Green Book Chapter 23)
- Rubella (see PHE Green Book Chapter 28)
- Scarlet fever

To be undertaken by non-specialist practitioners (eg, General Practitioner (GP) Team) or specialist practitioners (eg, Emergency Department / Paediatric Team(s)):

- Basic advice should be given for children with suspected viral infections, including to stay well hydrated and use of paracetamol / ibuprofen as required to relieve symptoms
  - Aspirin should not be given to children < 16 years old
- Advice should be given regarding school and nursery attendance during the infectious period depending on diagnosis made
- Many viral illnesses are self-limiting and do not require specific treatment:
  - Chickenpox (see PHE Green Book Chapter 34)
    - Antiviral treatments (eg, aciclovir, valaciclovir) may be needed for children with severe disease or at risk of developing severe disease to shorten disease course and limit eruption of new vesicles
    - NICE Clinical Knowledge Summary (CKS) currently recommends avoiding use of nonsteroidal anti-inflammatory drugs (NSAIDs) in chickenpox due to there being a possible increased risk of the development of severe skin infections (eg, necrotising fasciitis) and soft tissue infections (usually caused by group A streptococcus and *S. aureus*) (see Chickenpox [\[NICE clinical knowledge summary\]](#))
      - Until further evidence becomes available, paracetamol is the recommended antipyretic for children with chicken pox
    - Varicella zoster immunoglobulin (VZIG) or aciclovir prophylaxis is recommended in some instances in exposed children at risk of developing severe disease
  - EBV
    - Advice should be given regarding avoidance of contact sports due to risk of splenomegaly
  - Hand, foot and mouth disease
  - HSV
    - Anti-viral treatments (eg, aciclovir, valaciclovir) may be taken as tablets or liquids to help to lessen the severity of the attack and / or shorten it
  - Measles
  - Mumps
  - Roseola
  - Rubella
- Molluscum contagiosum
  - Lesions usually resolve spontaneously over months, and watchful waiting is the treatment plan recommended by NICE guidance (see Molluscum contagiosum [\[NICE clinical knowledge summary\]](#))
  - Patients should be advised against squeezing the lesions to reduce spread and risk of superinfection
  - If lesions are particularly extensive or troublesome then you may consider referral for further treatment, however a Cochrane review in 2009 concluded there is insufficient evidence to recommend any treatments
- Meningococcal septicaemia (see Meningitis (bacterial) and meningococcal septicaemia in under 16s: recognition, diagnosis and management [\[NICE clinical guideline CG102\]](#))
- Scarlet fever

- Give advice about symptomatic relief and offer paracetamol / ibuprofen, and encourage the person to rest and drink adequate fluids
- Antibiotic treatment should be prescribed promptly if the person is well and does not need admission (eg, phenoxymethylpenicillin (penicillin V))
- Amoxicillin can be prescribed where compliance to penicillin V is a concern
- Azithromycin can be prescribed for people with penicillin allergy

To be undertaken by specialist practitioners (eg, Emergency Department / Paediatric Team(s)):

- Meningococcal septicaemia may require supportive care in a critical care setting
  - Close contacts should also receive antibiotic prophylaxis
- Streptococcal or staphylococcal infection may also cause septic shock and require supportive care in a critical care setting
- Kawasaki Disease
  - Children may be managed with aspirin and intravenous immunoglobulin. They should undergo an electrocardiogram (ECG) and echocardiogram to monitor for complications such as coronary artery aneurysm

## When to Refer

Refer urgently to specialist practitioners (eg, Emergency Department / Paediatric / Team(s)) if:

- Immunocompromised
- Suspected meningococcal disease (see Meningitis (Bacterial) and Meningococcal Septicaemia)
- Suspected Kawasaki Disease
- Suspected chickenpox, EBV, hand foot and mouth or urticaria if lesions infected
- HSV
  - Eczema herpeticum requires referral to hospital
  - HSV-2 with genital lesions – consider safeguarding
  - Neonates with suspected vesicular lesions
- Mumps
  - Suspected meningitis / encephalitis
  - Suspected orchitis
- Rubella
  - Suspected encephalitis
- Measles
  - Younger than one year of age
  - Suspected pneumonitis or encephalitis
- Scarlet fever
  - Pre-existing valvular heart disease
  - Suspected streptococcal toxic shock syndrome, acute rheumatic fever or streptococcal glomerulonephritis

Escalate care to specialist practitioners (eg, Emergency Department / Paediatric Team(s)) if:

- Parvovirus B19 and rubella
  - Inform obstetrics and gynaecology if patient is found to be pregnant
- Molluscum contagiosum
  - When diagnosis uncertain, if extensive disease is present or associated with poorly controlled atopic dermatitis, referral to dermatology or infectious disease should be considered

## ‘Safety Netting’ Advice

- Opportunities should be taken to discuss vaccination(s) for those who have not yet received them (see PHE Green Book)
- Patients with measles / mumps / rubella should return if developing any signs / symptoms suggestive of encephalitis

## Patient / Carer Information

***\*Please note: whilst these resources have been developed to a high standard they may not be specific to children***

- [Chickenpox](#) (Web page), the NHS website
- [Chickenpox in children](#) (Web page), Patient
- [Cold sores](#) (Web page), the NHS website
- [Genital herpes](#) (Web page), the NHS website
- [Glandular fever](#) (Web page), the NHS website
- [Hand, foot and mouth disease](#) (Web page), the NHS website
- [Hand, foot and mouth disease](#) (Web page), Patient
- [Herpes simplex eye infections](#) (Web page), the NHS website
- [Eye infection \(herpes simplex\)](#) (Web page), Patient
- [Kawasaki disease](#) (Web page), the NHS website
- [Measles](#) (Web page), the NHS website
- [Measles](#) (Web page), Patient
- [Molluscum contagiosum](#) (Web page), the NHS website
- [Molluscum contagiosum](#) (Web page), Patient
- [Mumps](#) (Web page), the NHS website
- [Mumps](#) (Web page), Patient
- [Neonatal herpes \(herpes in a baby\)](#) (Web page), the NHS website
- [Roseola](#) (Web page), the NHS website
- [Roseola](#) (Web page), Patient
- [Rubella \(german measles\)](#) (Web page), the NHS website
- [Rubella](#) (Web page), Patient
- [Scarlet fever](#) (Web page), the NHS website
- [Slapped cheek syndrome](#) (Web page), the NHS website
- [Slapped cheek disease](#) (Web page), Patient

## Resources

### National Clinical Guidance

[Fever in under 5s: assessment and initial management](#) (Web page), NICE clinical guideline CG160, National Institute for Health and Care

[Meningitis \(bacterial\) and meningococcal septicaemia in under 16s: recognition, diagnosis and management](#) (Web page), NICE clinical guideline CG102, National Institute for Health and Care

### Medical Decision Support

[Glandular fever \(infectious mononucleosis\)](#) (Web page), NICE Clinical Knowledge Summary, National Institute for Health and Care Excellence

[Hand foot and mouth disease](#) (Web page), NICE Clinical Knowledge Summary, National Institute for Health and Care Excellence

[Herpes simplex – genital](#) (Web page), NICE Clinical Knowledge Summary, National Institute for Health and Care Excellence

[Herpes simplex – ocular](#) (Web page), NICE Clinical Knowledge Summary, National Institute for Health and Care Excellence

[Herpes simplex – oral](#) (Web page), NICE Clinical Knowledge Summary, National Institute for Health and Care Excellence

[Immunisation against infectious disease](#) (Web page) Public Health England's Green Book

[Measles](#) (Web page), NICE Clinical Knowledge Summary, National Institute for Health and Care Excellence

[Molluscum contagiosum](#) (Web page), NICE Clinical Knowledge Summary, National Institute for Health and Care Excellence

[Mumps](#) (Web page), NICE Clinical Knowledge Summary, National Institute for Health and Care Excellence

[Notifiable diseases and causative organisms: how to report](#) (Web page), Public Health England

[Parvovirus B19 infection](#) (Web page), NICE Clinical Knowledge Summary, National Institute for Health and Care Excellence

[Rubella](#) (Web page), NICE Clinical Knowledge Summary, National Institute for Health and Care Excellence

[Scarlet fever](#) (Web page), NICE Clinical Knowledge Summary, National Institute for Health and Care Excellence

## Suggested Resources

***\*Please note: these resources include links to external websites. These resources may not have national accreditation and therefore PCO UK cannot guarantee the accuracy of the content.***

[Common childhood rashes](#) (Web page), Patient

[Chickenpox](#) (Web page), Patient

[Herpes simplex eye infections](#) (Web page), Patient

[Genital herpes simplex](#) (Web page), Patient

[Measles](#) (Web page), Patient

[Molluscum contagiosum](#) (Web page), Patient

[Mumps](#) (Web page), Patient

[Oral herpes simplex](#) (Web page), Patient

[Parvovirus infection](#) (Web page), Patient

[Rubella](#) (Web page), Patient

[Urticaria](#) (Web page), Patient

[Viral rashes](#) (Web page), Patient

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