

Petechiae and Purpura

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Background

- **Fever and petechiae = meningococcal disease** until proven otherwise
- All children with fever or history of fever and petechiae should be reviewed by a Senior Clinician

Definitions

Petechiae and purpura are small flat dark red/purple spots resulting from bleeding into skin or under mucosal membranes.

Petechiae – Non blanching spots < 2mm

Purpura – Non blanching spots > 2mm

Meningococcal disease is easily missed and the overall mortality is 10% - if the child is unwell, **treatment must take priority.**

Indicators of an unwell child* may be:

- Clinician instinct – the child that subjectively looks unwell
- Parental concern
- Tachycardia and tachypnoea +/- desaturation
- Signs of poor peripheral perfusion
 - Cool peripheries, pallor
 - Prolonged capillary refill time > 2 secs
- Fever > 38.5°C or > 38° in child < 3 months
- Altered conscious level

Differential Diagnosis

- **Meningococcal/streptococcal infection** – fever, shock and meningitic signs may not be present. Have a low threshold for antibiotic treatment or prolonged observation, especially if pre-treated with antibiotics. See [meningococcal septicaemia guideline](#).
- **Viral exanthema** – influenza, enterovirus. If child is unwell, do not assume it is viral. Treat first and diagnose on viral throat swab later.
- **Henoch Schönlein purpura (HSP)** – child usually well. Classical rash distribution over buttocks and legs with accompanying joint or abdominal pain – see [HSP guideline](#).
- **Haematological** – examine for hepatomegaly, splenomegaly and lymphadenopathy – the child may have acute leukaemia or aplastic anaemia. If history of mucosal bleeding check clotting screen. Isolated thrombocytopenia – see [ITP guideline](#).
- **Mechanical** – pressure and trauma can cause petechiae (be aware of NAI). Forceful coughing and vomiting can result in petechial rash in the SVC distribution.

