PAEDIATRIC ACUTE CARE GUIDELINE	
Petechiae +/- Fever	
Scope (Staff):	All Emergency Department Clinicians
Scope (Area):	Emergency Department

This document should be read in conjunction with this DISCLAIMER
http://kidshealthwa.com/about/disclaimer/

Petechiae +/- Fever

Petechiae: Pinpoint (1-2 mm) red or purple non-blanching spots on the body
Purpura: Larger (> 2 mm) red or purple non-blanching spots on the body
Fever: > 38°C in the > 1 month age group
> 37.5°C in the < 1 month age group

Background

- The cause of petechiae and fever is difficult to diagnose on presentation
- Always err on the side of caution and obtain senior medical advice early
- This guideline is for Princess Margaret Hospital **internal** use only

General

- In Australia, most cases of meningococcal disease occur in winter or early spring.
- Less than 10% of children with petechiae and fever will have meningococcal disease.
- Early recognition and treatment is paramount.
- Mortality risk is high at approximately 10%. Furthermore 10-20% of patients who survive will develop permanent sequelae.
- Well children with petechiae confined to the area of the distribution of the superior vena cava (SVC) (above the nipple line) are unlikely to have a diagnosis of meningococcal disease.
- Consider: investigation and treatment of children who may have received **partial treatment with antibiotics**

Assessment

Differential diagnoses

Causes Of Petechiae:

Viral	Influenza Enterovirus
Bacterial	*Neisseria meningitidis* *Haemophilus influenzae* *Streptococcus pneumoniae*
Mechanical	Vomiting, coughing – petechiae to head and neck Local pressure – (tourniquet, holding, trauma) – petechiae to site Non-accidental injury (NAI)
Other	Henoch Schonlein purpura (HSP) Immune thrombocytopenic purpura (ITP) Systemic lupus erythematosus (SLE) Leukaemia

Management

- **All patients with petechiae need to be reviewed by an Emergency Department Senior Doctor**
- **No discharge home between midnight and 8am**

Initial management

Temperature > 38°C and looks unwell:
• Investigations:
  ◦ FBC, U&E, CRP, venous blood gas (+/- coagulation profile to screen for DIC)
  ◦ Meningococcal PCR, Blood Culture
  ◦ +/- lumbar puncture (See ED guideline: Lumbar Puncture to determine if appropriate)
• Intravenous antibiotics: Ceftriaxone 50mg/kg
• Consider intravenous fluids: 0.9% saline 20mL/kg, repeat if signs of shock
• Hourly observations: temperature, heart rate, respiratory rate, blood pressure, capillary refill, AVPU
• Medical review hourly including skin (for spreading petechiae)
• Admit to ward under General Paediatric Team
• Consider PICU referral

If looks well :
• **No Investigations until reviewed by ED consultant** (in hours)
• If after midnight,
  ◦ Admit to Emergency Short Stay Unit (4E) until consultant review
  ◦ Consider investigating and treating as above for the unwell child if patient has abnormal vital signs
  ◦ Hourly observations: temperature, heart rate, respiratory rate, blood pressure, capillary refill, AVPU
  ◦ Medical review hourly including skin (for spreading petechiae)
• If on review child looks **unwell,** has spreading petechiae or has developed abnormal vital signs - investigate and treat as above for the unwell child.I

History of mechanical cause
• Consider differential diagnoses: ITP, HSP
• If suspected non-accidental injury refer to Child Protection Unit (CPU)
• Consider investigations for underlying aetiology – HSP, ITP, SLE, non-accidental injury

Discharge criteria

No signs of deterioration or progression of rash:
• Emergency Department Senior Doctor must review the patient prior to discharge
• Follow up: General Practitioner within 24 hours

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File Path:			
Document Owner:	Dr Meredith Borland HoD, PMH Emergency Department		
Reviewer / Team:	Kids Health WA Guidelines Team		
Date First Issued:	5 December, 2013	Version:	
Last Reviewed:	13 September, 2017	Review Date:	14 September, 2020
Approved by:	Dr Meredith Borland	Date:	13 September, 2017
Endorsed by:	Medical Advisory Committee	Date:	13 September, 2017
Standards Applicable:	NSQHS Standards:		