

# BLANCHING RASHES

## Learners Guide

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### PRE READING

Please watch or read one of the basic pathophysiology links before the session.

**BMJ Best Practice - Evaluation of rash in children**

**PEDS Cases - Viral Rashes in Children**

**RCEM Learning - Common Childhood Exanthems**

**American Academy of Dermatology - Viral exanthems**

## CASE 1 (15 MINS)

Mark is a 3-year-old boy brought to the ED by his mother with a rash, temperatures and decreased oral intake. His older brother has a similar rash and illness and mum reports that there was an outbreak of chickenpox in the older brother's school.

On exam you note a quiet child with a diffuse vesicular rash. On palpation he has generalised lymphadenopathy.

**What are the differentials?**

**What is the incubation period? How long will Mark be infective?**

**What investigations are necessary?**

**How would you manage this illness? What treatment would you give?**

**What patients would you give anti-VZV immunoglobulin to?**

**Mark's mum tell you that she has a 2-week old baby at home – what will you do?**

**What complications of chickenpox can occur?**

**Mum tells you that the children's childminder is pregnant what advice do you give?**

**Discussion point – Do you use NSAIDs?**

## CASE 2 (15 MINS)

Caleb is a 9-year-old boy who presents for evaluation of fever and rash. His mother noted a fever of 40 °C two days ago. He appeared well and was eating and playing normally, so his mother was not alarmed. After the fever resolved, Caleb developed red rash that progressed rapidly over the past 24 hours.



(Image used with gratitude from [www.dermnetnz.org](http://www.dermnetnz.org) with use from creative commons)

**What is the most likely diagnosis?**

**What are the differentials?**

**What is the cause of roseola?**

**Who gets it?**

**How is it spread?**

**What are the signs and symptoms of roseola?**

**How is it diagnosed?**

**What is the treatment?**

**What are the complications from roseola?**

## CASE 3 (20 MINS)

A 5-year-old girl, Emma, attends the ED with after being unwell for the last 3 days. It initially started out with fever, headache and a sore throat. She then developed a rash 24 hours ago. Her parents report that the rash started on her abdomen and spread to the neck and arms and legs and it feels rough to touch.

On exam she has a sandpaper type rash on her trunk and limbs which is more pronounced in flexures.

**What is the most likely diagnosis?**

**What other symptoms might Emma have?**

**What is it caused by?**

**What are the differential diagnoses?**

**How is the diagnosis confirmed? What investigations will you do?**

**What is the treatment? Why do you treat?**

**Discussion point – Evidence for antibiotic therapy**

**What are the possible complications? How can you categorise them?**

**What advice do you give to Emma's parents in order to prevent transmission of Scarlet fever?**

**Is there anything else you need to do?**

## ADVANCED CASE SCENARIO 1

Alex, a 4 year-old boy has been brought to the emergency department by his worried parents. He has had fevers for the past 6 days. They are concerned because he is not getting better despite repeated visits to a number of doctors. Each time they were told he had a viral illness.

On examination you note the presence of bilateral conjunctivitis, and erythematous rash on his torso and limbs, a 4 cm tender left-sided cervical lymph node and a diffusely red pharynx.

**What is the most likely diagnosis?**

**How is the diagnosis made?**

**Who gets this condition?**

**What are the important differential diagnosis?**

**What investigations should be performed?**

**What complications may occur?**

**What specific treatment is required?**

**Discussion point – Incomplete Kawasaki Disease: Another child, Sarah, attends the ED with 6 days of fever. On exam you find a strawberry tongue and cervical lymphadenopathy >1.5cm. No other signs of Kawasaki disease are present.**

**What might you consider?**

**Discussion point - Is there a roll for steroids in Kawasaki disease?**

## GAME – CARDS AGAINST PAEDIATRIC DERMATOLOGY (30-40 MINS)

<https://em3.org.uk/foamed/9/8/2019/cards-against-paediatric-dermatology>

## QUIZ (7-10 MIN)

### Question 1.

What disease is associated with dermatitis herpetiformis?



Images used with gratitude from Wikipedia.org

**A**  
Herpes

**B**  
Coeliac disease

**C**  
Atopic dermatitis

**D**  
Melanoma

## Question 2.

What is the most common causative agent of erythema multiforme?



Images used with gratitude from Wikipedia.org

- A** Penicillin and sulphonamides
- B** Systemic lupus erythematosus
- C** HSV infection
- D** Malignancy

### Question 3.

What disorder is characterised by an initial 'herald patch' which is then followed by scaly erythematous plaques usually in a 'Christmas tree' distribution?



Images used with gratitude from Wikipedia.org

**A**  
Pityriasis rosea

**B**  
Herpes

**C**  
Varicella zoster  
virus

**D**  
Erysipelas



## Question 4.

What is the infective agent implicated in acne?



Images used with gratitude from Wikipedia.org

- A** Staphylococcus aureus
- B** Streptococcus pyogenes
- C** Staphylococcus epidermidis
- D** Propionibacterium acnes

## Question 5.

Which of the following statements about the treatment of measles is correct?

- A** No specific antiviral therapy is recommend for immunocompetent patients
- B** Prevention of spread of measles depends on prompt immunization of people at risk of exposure or people already exposed who cannot provide documentation of measles immunity
- C** Recommend supportive care with antipyretics, fluids and rest
- D** All of the above

## 5 practical take home tips

- 1 Always perform a full exam, including ENT and examination of extremities – this is key to forming your list of differentials
- 2 Do not forget vaccination history!
- 3 A thorough history to establish when fever started/stopped and where/when rash started is essential
- 4 Check if the child needs to be excluded from school - be cognisant of local public health guidelines.
- 5 Have a low index of suspicion for Kawasaki disease in the child with persistent fever – it may be incomplete Kawasaki disease

## REFERENCES

[BMJ Best Practice - Evaluation of rash in children](#)

[PEDS Cases - Viral Rashes in Children](#)

[RCEM Learning - Common Childhood Exanthems](#)

[DFTB - Exclusion period for infections](#)

[Pediatric EM Morsels - Chicken Pox](#)

[BMJ Paediatrics Open - Management of varicella in neonates and infants](#)

[RCOG - Chickenpox in Pregnancy](#)

[DFTB - Varicella and NSAIDs](#)

[East Midlands Emergency Medicine Educational Media - Lightning Learning: Febrile Convulsion](#)

[DFTB - Scarlet Fever](#)

[BMJ - Managing Scarlet Fever](#)

[LITFL - Kawasaki Disease](#)

[DFTB - Kawasaki Disease](#)

[BMJ - Kawasaki disease](#)

[Cochrane - Using steroids to treat Kawasaki disease](#)

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