

# PAEDIATRIC QUICK HITS

## URTICARIA

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# BACKGROUND

- Urticaria means weals (hives) or angioedema (swelling) occurring in the skin
  - Weal is superficial swelling surrounded by an area of erythema and lasts for few minutes to 24 hours
  - Angioedema is deeper swelling in the skin or mucous membranes- usually lips, tongue or eyelid
- Occurs due to mast cell degranulation and therefore histamine release
- Acute occurs for <6 weeks and chronic is > 6 weeks

# CAUSES

- Idiopathic- no cause found (50%)
- Infection
  - Most common cause (40%) in kids is a recent viral infection
- Allergy
  - Suspect if episodes are short lived and other symptoms present such as breathing difficulty or abdominal pain
  - Occur within 1-2 hours of a meal or in relation to a sting or recent medication
  - Urticaria with an antibiotic is often due to the underlying illness rather than the antibiotic
    - Can refer to allergy clinic if unclear
- Physical causes- heat, cold, exercise
- Chronic urticaria can be idiopathic or can be autoimmune related

# EXAMINATION

- Rapidly assess for signs of **anaphylaxis and treat if present**
- Hives
  - Elevated skin lesions with a flat pale centre, surrounded by an erythematous base (wheals)
    - Localised or generalised, any part of the body
    - Vary in size (millimetres to centimetres)
    - Well circumscribed but often coalescent
    - May appear within minutes and usually resolve within 24 hours
    - Transient and appear to “migrate”, disappearing within minutes to hours from one location and reappearing elsewhere
      - In an area where a wheal has faded, there may be residual purple discolouration
    - **Polymorphic and transient - diagnostic features**
      - **I tell parents the rash moves in time and place, so may be present on the arms now, but tonight the arms may be better but the rash may be on the abdomen.**
  - Excoriation (due to intense pruritis)
  - Signs of underlying cause (eg infection, systemic disease)
- Angioedema
  - Swelling- often of face and lipds
  - Compared to hives/weals these lesions are larger and can be uncomfortable and may take 72 hours to resolve



All urticaria



# DIFFERENTIALS



Urticaria	Erythema Multiforme
Urticaria: non-target lesions (central pallor)	Erythema multiforme: target lesion (central purpura)
<ul style="list-style-type: none"> <li>•Itchy</li> <li>•Migratory</li> <li>•Wheals with central pallor. <b>Not target lesions</b> - there is no central papule, blister, purpura or ulcer</li> </ul>	<ul style="list-style-type: none"> <li>•<b>Not</b> usually itchy</li> <li>•<b>Not</b> migratory - individual lesions persist in the same location for days</li> <li>•<b>Target lesions</b> with a central papule, blister, purpura or ulcer</li> <li>•Symmetric, often involving palms, soles, face and oral mucosa</li> </ul>

## Other differentials

- Urticarial vasculitis
  - Uncommon
  - lesions are usually painful and last >48 hours
- Insect bites
  - usually occur on exposed sites
  - Are itchy papules or wheals often with a central fluid filled blister
  - Lesions last several days
- Contact dermatitis
  - Irregular plaques that are often scaly
  - Lasts days to weeks

# MANAGEMENT

- No investigations required for acute urticaria
- If concerned for anaphylaxis then treat as per anaphylaxis algorithm
- Treatment
  - Antihistamines eg:
    - loratadine- is od dosing but can be increased to tds if required
    - Cetirizine- is already bd dosing on AMH but can be increased to qid if needed
  - Cool compresses
  - Avoid NSAIDs
  - Steroid creams not useful and a one off stat dose of prednisone for severe cases can be used but the evidence for this is unclear.
- Chronic urticaria treatment is the same + referral to allergy clinic.

With thanks to

- [Clinical Practice Guidelines : Urticaria \(rch.org.au\)](https://www.rch.org.au)
- [Urticaria in children | DermNet \(dermnetnz.org\)](https://www.dermnetz.org)