PRACTICAL ECZEMA & SKIN INFECTION MANAGEMENT IN GENERAL PRACTICE

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Capital & Coast DHB
CHILDHOOD ECZEMA

- Affects 15 – 20% New Zealand school children
- Preventable cause of skin and soft tissue infection
- Poor adherence to prescribed therapy is commonest cause of treatment failure
- Good management can prevent and minimise exacerbations, infections
Clinical Reference Group

- **Pauline Brown**, eczema nurse specialist, Northland
- **Jan Sinclair**, paediatric immunologist, Auckland
- **Thorsten Stanley**, paediatrician, Wellington
- **Annie Judkins**, general practitioner, Wellington
- **Steve Gill**, dermatology nurse specialist, Dunedin
- **David Young**, dermatologist, Dunedin
- **Jane Edwards**, paediatric nurse, Gisborne
- **Sarah Waldron**, nurse practitioner, Northland
- **Penny Jorgenson**, allergy nz advisor, Auckland
- **Tom Townend**, paediatrician Christchurch
- **Allison Jamieson**, clinical advisor, Plunket NZ
- **Diana Purvis & Debbie Rickard** as clinical leads
CHILDHOOD ECZEMA NETWORK AIMS

- To foster a nationally coordinated continuum of care
- To develop a model of care
- Establish a workforce development and education programme
- Advocate for evidence based care
- Develop resources for clinicians and families
- Liaise with other relevant national and international organisations
RESOURCES & TOOLS

  - How to apply emollients
  - How to apply topical steroids
  - How to bath a baby
- Plunket guidelines
- Work on handouts for use in primary care
- Work on guidelines for primary care
  - GAIHN, Canterbury Health guidelines  
    http://www.healthpointpathways.co.nz/northern/  
    (just go to paediatric eczema)
Tool Box of Eczema Care

- Emollients
- Topical Steroids
- Bacterial Management
- Wet Wraps / Dry wraps

Identify irritants
Behaviour modification

Dispelling the Myths & Misconceptions
Diet and Eczema

- Current evidence suggests that for the most part, food exclusion does not improve or prevent eczema.

- Elevated IgE antibodies are evidence only for sensitization to a food but are not proof of a food allergy.

- The presence of antibodies is a consequence of the pruritic nature of eczema, causing children to scratch their skin, allowing food allergens to be absorbed via this disrupted skin barrier, and inducing the development of antibodies.

- “An immediate reaction to food -- usually within 30 minutes -- hives, lip swelling, vomiting, is required for diagnosis of food allergy.”

- Unwarranted food avoidance, particularly in children, can produce nutritional deficiencies and adversely affect growth.

The skin barrier & IgE
Topical Steroids
Topical Steroids
Are SAFE

CLASSES OF TOPICAL STEROIDS

1: Very Potent:
- up to 600 x hydrocortisone
- Dermal, Diprosone

2: Potent:
- 150-100 x
- Beta, Betnovate, Locoid, Mometasone, Advantan

3: Moderate:
- 2-25 x
- Aristocort, Eumovate

4: Mild:
- Hydrocortisone 0.5 - 2.5%

Dermnet NZ
DIFFERENT FIRE APPLIANCES FOR DIFFERENT FIRES = DIFFERENT STRENGTHS OF STEROIDS FOR DIFFERENT FLARES
**Topical Steroids**

- Key treatment to use in conjunction with emollients
- Can be used on broken skin – not broken down weeping skin ie where no inflammation
- Can be used when skin infected – to inflammatory areas of skin, not infected areas
- Used readily & in reasonable amounts
- Skin must be hydrated before stopping

Resource - handout
ENSURE THAT SUFFICIENT AMOUNTS ARE PRESCRIBED

<table>
<thead>
<tr>
<th>Requirement for topical steroids</th>
<th>6 months</th>
<th>12 months</th>
<th>5 years</th>
<th>12 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily (g)</td>
<td>9.5 (g)</td>
<td>12 (g)</td>
<td>20 (g)</td>
<td>36.5 (g)</td>
</tr>
<tr>
<td>Weekly (g)</td>
<td>67 (g)</td>
<td>84 (g)</td>
<td>140 (g)</td>
<td>225 (g)</td>
</tr>
</tbody>
</table>

TOPICAL STEROIDS

- May need to be shown how to apply

- Apply before emollient - unless you wish to dilute steroid potency or skin extremely dry or broken ie “steroid sandwich”

- Donot mix in emollient (unless eczema mild or want to dilute steroid)

- Use should be guided by symptoms not days of treatment

- Short bursts of potent is preferred over prolonged use of mild preparations
EMOLLIENTS

- Reduce /stop/prevent & alleviate itch
- Dampen down skin inflammatory response
- Alleviate discomfort of damaged skin and promote healing
- Treat chronic lesions and reduce pigmentation changes
- Assist with staph colonisation
- Long term reduce need for topical steroids
- Can be used diagnostically
EMOLLIENT: THE MAGIC CREAM

Figure 6. The mean quantity (g) of emollient cream/ointment being used per week reported at each clinic visit plotted against the mean investigator's assessment of severity of the eczema using the six area, six sign atopic dermatitis severity score (SASSAD) at each visit.

Make this skin →

Like this skin

AND THE GOAL IS TO....
…to support the unstable skin
GOLDILOCKS & THE THREE BEARS...

- Water based eg aqueous cream
- Semi oil based eg health E fatty cream
- Oil based eg emulsifying ointment
- Ideally SLS free

...... Its about what works
“Since focusing on her baths the change in her skin has been dramatic”

‘I think if more parents with eczema kids knew about the importance of baths, we’d spare more kids (and their parents) a lot of misery’
I don’t like pink or yellow baths...... I like white baths”

3 year old child
**Bathing**

- Must bath with an emollient

- Increase volume of emollient in response to skin integrity/dryness

- Ideally emulsifying ointment – melted in hot water (which can be whisked)

- Have bath water as hot as child will tolerate

- Add antimicrobial as required

- Time should be at least 10 minutes (but can’t be too long!) & ideally daily
ANTIMICROBIALS

- Not evidence based except bleach
- These work! (practice based)
- If used daily for more than 5-7 days may need to take step approach
- Bepanthen acts as antimicrobial & barrier!
  - Bleach
  - Oilatum Plus/ QV flare up
  - Bepanthen ointments (antiseptic/first aid)
OILATUM PLUS/ QV FLARE UP

- Bath additive: benzalkonium chloride 6%, triclosan 2%, light liquid paraffin
- For topical treatment of eczema including eczema at risk from infection
- 1 - 2 mls in infant bath, 4 - 8 capfuls in bath
- Can be used on infants under 6 months
- If used daily for more than 5-7 days then step approach needs to be used when decreasing
BLEACH IN THE BATH!

- Evidence based

- Drying of skin & difficult to use on daily basis

- Gentler antimicrobials can be used daily

- Cost factor

- Half a cup of janola (2-6%) in full bath 1-2 times week; ¼ cup daily

  - (5ml Janola per 5L of water. This is approximately 100ml for a 15cm deep full sized bath. Baby’s baths use a capful)
BARRIERS

- Contact dermatitis eg infants
- Intertrigo (skin folds)
- Resistent lesions
- Can be applied after topical steroid & emollient ie different actions
- Use prophylactically and symptomatically

- Bepanthen
- Vaseline
- Zinc
WRAPPING

- Provide more consistent hydration of skin
- Enables healing & skin repair
- Useful where emollient will not or cannot be applied frequently enough eg teenager
- Provides physical barrier and reminds child/teen they are scratching

Dry
Wet
Suits

www.allergypharmacy.co.nz
**Itch - Scratch**

- Physiology particularly for infant eg scratching when clothes come off
- Behavioural / Emotional
- Need to involve child once old enough to break itch-scratch cycle
- Advice informed by physical assessment
- Importance of using emollients and barriers prophylactically as well as symptomatically (proactive vs reactive)
SKIN INFECTION – EXACERBATING FACTORS

- Eczema /dry skin & other skin conditions +/-
- Scabies
- Head lice
- Herpes simplex
- Chicken pox, measles
- Impetigo
- Molluscum contagiosum

and more.....
Infection & Eczema

- Association of staph aureus colonisation with severity of eczema (Huang et al 2009)
- Increased susceptibility to skin infection
- Increased risk to systemic infections, infection of bone & tissue

  - 88% had visited GP or AHMC
  - Eczema co-morbidity in <10%
  - Eczema co-morbidity in 48.5% of family members

- Frequent recurrent eczema exacerbations (needing medical attention) and / or infections ie every 4-6 weeks or less an indication of poorly controlled eczema
**Infection & Eczema**

- In people with eczema, a high rate (73%) of self-contamination from *S. aureus* carrier sites (nose, subungual spaces (under the nails), axillae (armpits), groin and the periauricular area (ears) or from colonised skin lesions has been described.

- Bacterial transmission between children with atopic eczema and family members has also been reported.
**BACTERIAL MANAGEMENT**

1. Emollient
2. Antimicrobial bath additive – oilatum plus/ qv flare up or bleach
3. And/or topical antimicrobial such as Bepanthen and/or Sterigel
4. Topical antibiotic (Mupirocin/ Fucidin)
5. Oral antibiotic

TREATMENT OF INFECTION

- Swabs should only be taken if suspect microorganism other than *Staph aureus* present, or if antibiotic resistance is relevant

- Potential for re-infection with contamination of products in open containers

- Antiseptics such as triclosan or chlorhexidine can be used, at appropriate dilutions, as adjunct therapy to decrease bacterial load in children who have recurrent infected atopic eczema. Long-term use should be avoided

- Oral antibiotic is required if there are extensive areas of infected eczema
TREATMENT OF INFECTION

- Antibiotics are important for treating overt secondary bacterial infections.

- Unnecessary use of antibiotics is expensive and potentially dangerous (in terms of systemic effects, development of allergy and emergence of multi-resistant strains of microorganisms).

- Topical antibiotics should be used to treat localised overt infection only, and for no longer than two weeks.

- Health professionals should refer to local guidelines for advice on local patterns of resistance.

NICE – Atopic Eczema in Children Guidelines 2007 (updated 2010)
RECURRENT INFECTION

- Eczema needs to be effectively managed however also consider..
- Close review of history, management & physical reassessment eg frequency and amount of antimicrobials used
- Underlying conditions anaemia, primary immunodeficiencies etc (rare)

- The importance of good hygiene:
  - Preventive educational messages on personal hygiene and appropriate wound care eg keeping discharging wounds/active staph covered, handwashing; decanting emollients etc
  - Environmental hygiene measures eg cleaning surfaces, hot washing of towels, bedding etc (or cap of bleach added)
**DECOLONISATION**

- Consider when eczema well controlled, and when child and or family members have recurrent infections despite optimal hygiene measures in place:

  - Nasal decolonisation with topical antibiotics (applied with a cotton bud or finger), e.g. fusidic acid or mupirocin 2% ointment twice daily for five days

  - Topical body decolonisation with dilute bleach baths or skin antiseptic solution (chlorhexidine or triclosan 1%) applied as a whole body wash daily for one week, repeated if required (subsidised by endorsement for patients with recurrent S. aureus infections)

  - Surveillance cultures following a decolonisation regimen are not routinely recommended in the absence of an active infection

*BPAC August 2012; Regional Public Health. Healthy Skin in Greater Wellington: Protocols 2012*
RESOURCES:

- **NICE** – Atopic Eczema in Children Guidelines 2007 (updated 2010)
- **BPAC** August 2012 Managing skin infections in Māori and Pacific families
- **Regional Public Health.** Healthy skin in greater Wellington: Protocols for the management of skin infections in children and young people, in community and primary health care settings. Wellington; RPH: 2012. on RPH website
- **Starship Guidelines**
RESOURCES

- Allergy New Zealand [www.allergy.org.nz](http://www.allergy.org.nz)
- Itchy Kids [www.itchykids.org.nz](http://www.itchykids.org.nz)
- ASCIA [www.allergy.org.au](http://www.allergy.org.au)
LOVE THE SKIN YOU'RE IN!

To Improve and Promote Healthy Skin
To Improve and Promote healthy skin

Kia tere horo te whakamahi Inga rongoa

- Tina Te Tau mihimihi/Karakia  Maori Health Unit
- Katie/Terese RN - Understanding your skin
  - How to care for your skin
- Nicola: Whaiora Nutritionist - Good food on a budget
- Break
- Ronga: Te Hauora Runganga - Keeping your skin well
  - Hinehou
- Lyn Tankersley - Healthy Homes
- Felicity - What are a family’s financial entitlements
- Mereana - Champion of wellness
- Break for Lunch

Date:  Wednesday 12th August
Venue:  Ko te Aroha Kohunga Reo, 3 Johnstone St Masterton
Time:  Start 9.30 Mihimihi/Karakia - 12.30pm finish
       Light Lunch, refreshments provided
CAN YOU HELP??

- How useful do you find the current BPAC/other guidelines?
- Would rural practice nurses be interested in training?
- How do you access specialist care for your populations with severe disease?
- Would telemedicine have a role?
- Anything else you would like me to take back to the CRG?
- Is there anything the childhood network can assist you with?

Thank You