Pediatric Dermatology

Wingfield Rehmus, MD MPH
BC Children’s Hospital
Conflict of interest

- No financial conflict of interest
- Individual products shown are examples only not a product endorsement
Pediatric Dermatology

- Structure and function of skin
- Basic skin care
- Overview of common dermatology problems
- Discussion of:
  - Atopic dermatitis/eczema
  - Impetigo
  - Scabies
  - Acne
Skin Facts

- Largest organ of your body!
- Functions:
  - Hold everything together
  - Protect from infections and chemicals
  - Protect from UV exposure
  - Maintain temperature
  - Maintain water balance
Skin’s Needs

- Oils on surface
- Intact surface
- Avoid contact with chemicals and infections
- Protection from UV exposure
Washing

- Wash regularly, especially hands
- Use a mild soap
- Warm, not hot water
- If your skin is dry, use moisturizer right after the bath
Cuts and Scrapes

- Wash gently and carefully
- Antibiotic ointment
- Cover with bandaid
Sun Protection – Why?

1) Sunlight can cause a burn.
2) Sunlight can change skin color.
3) Sunlight can cause wrinkles.
4) Sunlight can cause skin cancer.
“Slip! Slop! Slap!”

- Slip on a shirt
- Slop on sunscreen
  - High SPF
  - Zinc Oxide, Titanium Dioxide, Avobenzone
- Slap on a hat
Categories of Skin Problems

- Inflammatory conditions
- Infections
  - Viral infections
  - Bacterial infections
  - Fungal infections
- Infestations, bites and stings
- Pigmentary problems
- Cancers
- Misc others
Inflammatory Conditions
Viral Infections: Localized Molluscum and Warts
Warts - Treatment

- Treatment:
  - Over the counter salicylic acid – every night for 3 months or until gone
  - Duct tape – leave on 4 days then take off, rub down wart and reapply – use for 3 months or until gone
  - Surgery works, but leaves a scar
  - Liquid nitrogen
Viral infections: Herpes Simplex
Viral infections: Systemic Varicella-Zoster virus
Chicken Pox - Shingles

● When to see a doctor
  - If areas get weepy and look infected
  - In an adult – should start treatment within 24-48 hours of first blister

● When can people go back to work/school?
  - No longer have a fever
  - No new spots
  - All old blisters have scabbed over
Hand Foot and Mouth

- Pain relief with tylenol
- May have trouble eating due to pain in mouth
- Eat cold foods
Viral Exanthem

- Seen with many, many different viruses
- Could be a cold, measles, dengue or many other viruses
- Often very difficult to tell apart

When to see a doctor
- Fever is high
- Rash comes on quickly and is all over
- Unable to hold down fluids, eat
Bacterial Infections

- Examples are staph and strep
- Treated with antibiotics
- Can be just on the surface of skin or can go deep into tissue and even into blood

$+$  $=$  Dead Bacteria
Fungal infections
Tinea Corporis - Treatment

- Antifungal creams:
  - ****-azole
  - Terbinafine (Lamisil)
- Apply twice a day to area plus a bit of normal skin
- Use for 2-3 weeks
Tinea Versicolor

- Light spots, not white
- About the size of a dime
- Sharp, clear edge
- Can group into larger spots
Infestations, bites and stings

- Head lice, body lice, scabies, bedbugs, insects
- Best treatment is prevention
  - Carry illness – mosquitoes: West Nile Virus
  - Bites can get infected
  - Avoid contact with people with infestations
Pigmentary problems
Skin growths: Benign
Skin growths: cancers

Signs of Melanoma

- Asymmetry
- Border irregularity
- Color variability
- Diameter greater than 6mm
- Evolving

Images courtesy of Susan Swetter, MD
Atopic Dermatitis
Atopic Dermatitis: Infants
Atopic Dermatitis: Older children
Atopic Dermatitis

- Can be all over
- Rough surface with raised or light skin around hair follicles
Atopic Dermatitis

- Often seen in families and patients with asthma, hayfever
- Gets worse when:
  - Skin is dry
  - Skin is infected
  - Comes in contact with chemicals or fragrances
  - Certain foods in some patients
  - Stress
- Skin barrier doesn’t work well….
  - water out and irritants in
- The “itch that rashes”
- Chronic problem – comes and goes – no cure
Atopic Dermatitis- Treatment

- Keep the skin moist – scoop or squeeze
- Protect from chemicals and fragrances
- Treat the thick areas
  - Corticosteroids…*****-one
    - Hydrocortisone – over the counter – OK to use any time
    - Triamcinolone, betamethasone – prescription – only with doctors suggestion

- Minimize itch
  - Benadryl at bedtime
  - Distraction at times of stress or boredom
Atopic Dermatitis Home Care

- Daily bath: warm not hot, 10 minutes
- No scented products in bath
- Wash with mild cleanser
- Pat dry
- Immediately apply medication
- Seal medication in with plain moisturizer
  - Ointment, cream
- Use moisturizer several other times a day
Atopic Dermatitis

- Infection makes the whole rash worse
- Skin becomes bright red and weepy-wet on the surface or has honey-crust on top
Infections

- **Prevention**
  - Baths with $\frac{1}{4}-\frac{1}{2}$ cup bleach per tub
  - If recurrent, consider staph carrier state
    - Treat both nares and perianal area with mupirocin BID for 3 weeks

- **Impetigo**
  - Culture
  - Keflex, Erythromycin, Clindamycin

- **Eczema herpeticum**
  - IV acyclovir
Atopic Dermatitis
When to see a doctor

- Really thick
- Have shortness of breath also
- Yellowish crust or wet on top – may be infected and need antibiotic
- Just not getting better
Impetigo

- Infection on the very surface of the skin
- Spreads easily and is contagious
- Can begin from infected bug bite, scratch, or other skin problem like atopic dermatitis
- May form blisters
Impetigo

- Often staph or strep bacteria
- Crusted surface
- Often wet and weepy
- Yellowish, honey-colored surface
- May have pus visible
Impetigo Treatment

- If very small area
  - Wash with antibacterial soap
  - Wash with Betadine®
  - Apply antibiotic cream

- Larger area, spreading or redness associated
  - See a doctor, may need antibiotics

- Recurrent impetigo
  - Check family members
  - Might need antibacterial soap regularly
  - Treat nose and perianal area with mupirocin - antibiotics
Scabies

- Mite that lives under the skin
- Very contagious
- Causes itching all over
- Bumps and lines (burrows) seen between fingers and toes, at wrists
- Nodules in groin and under arms
Scabies

- When to see a doctor:
  - Any time someone thinks they have it!

- Treatment
  - Apply medicine from neck down in adult, all over for a baby
  - Leave cream on overnight and wash in the morning
  - All sheets, towels, clothes in the wash with hot dryer in the morning
  - Put anything unwashable in bag for several days
  - Vacuum couches and thick carpets
  - Repeat in 1 week

- Treat all close contacts who have itching at the same time

- Families often need a lot of support
Thank you!

wingfield@rehmus.com