Name That Rash! Common Skin Eruptions in Children and Teens

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Case 1

- A healthy 7-year-old male with no chronic medical conditions presents to your office. He says, "I've had these red spots on my arm for the past week, and now I'm getting new spots on the other arm. They're kind of itchy".

Superficial Dermatophyte Fungal infections

- Superficial dermatophyte fungal infections (also referred to as tinea) are limited to hair, nails, epidermis (skin).
- Dermatophytes are a group of related fungi that require keratin for growth and therefore cannot infect mucosa. They infect hair, skin and nails where there is keratin available.
- These infections rarely are dangerous or life threatening.
- Dermatophytosis is labeled by the involved area of the body.
  - tinea corporis (body)
  - tinea capitis (scalp)
  - tinea pedis (feet)
  - tinea unguium (nail)
  - tinea cruris (groin)
  - tinea faciei (face)

Tinea Corporis

- Dermatophyte infection of non-hairy skin of the body
- Trichophyton rubrum is the most common cause of tinea corporis in North America
- Common sources of transmission include skin-to-skin contact among younger children and older children participating in sports

Tinea Corporis

- Can be diagnosed by physical examination alone in its classic form

-single (or few) well demarcated, annular, itchy plaque with a raised border and central clearing

Tinea Incognito

If a topical steroid (either OTC or prescription) is applied to the tinea corporis infection, it can change the appearance. Always ask what creams/ointments they have applied.

Treatment and Management of Tinea Corporis

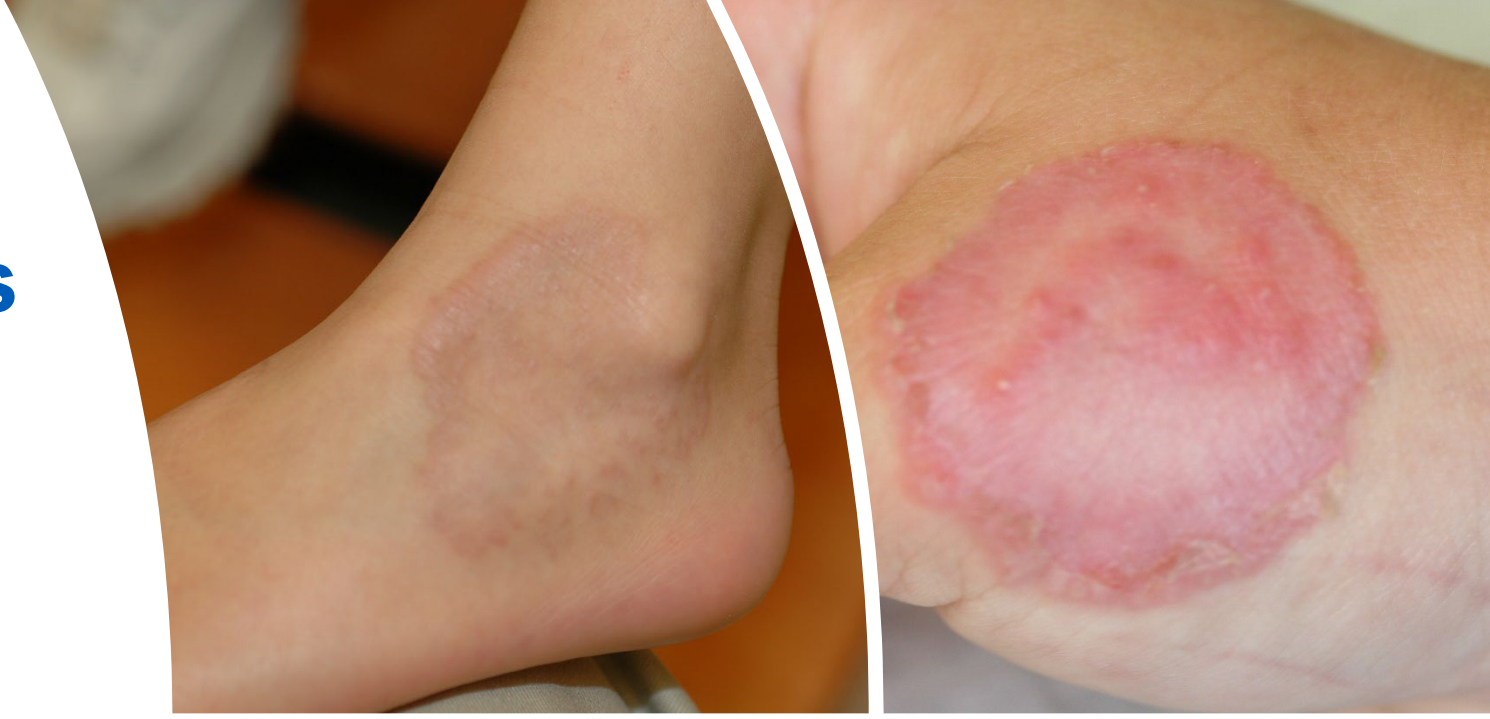
- Topical antifungal agents are the treatment of choice for tinea corporis
- For years mainstay of topical therapy has been imidazoles (end in "–azole" - ketoconazole, clotrimazole)
- Newer agents are also available (naftifine, terbinafine, butenafine)
- Curative for most infections in 2-6 weeks
- Apply creams to affected area and to at least 2cm of surrounding normal skin
- Continue treatment for at least 1 week after "clinical cure"

- Nystatin is INEFFECTIVE against dermatophytes.
- Do not use topical antifungal medications with topical corticosteroids

Tinea Corporis mimics

- Granuloma Annulare
- Herald Patch of Pityriasis Rosea
- Tinea Corporis

- Can you differentiate between the 3 in these pictures?



Case 1 Revisited

- A healthy 7-year-old male with no chronic medical conditions presents to your office. He says, "I've had these red spots on my arm for the past week, and now I'm getting new spots on the other arm. They're kind of itchy".

Nurse response:

Referral to patient's PCP for possible culture, topical antifungal cream twice daily, cover until treatment has been initiated

Case 2

- Child:
- A 6-year-old girl is sent to your office after her teacher noticed her scratching her head. She tells you, "My mom keeps looking at my head and says she sees scaly spots and tells me I'm losing my hair. I'm going to the doctor for it next week."

Tinea Capitis

- This is a superficial fungal infection of the scalp
- Affects primarily young children (3-9 years) and infrequently adults
- Is the most contagious fungal infection worldwide
- It is more common with crowded living conditions and low socioeconomic and urban settings and in African American children.
- 2 main genera: Trichophyton and Microsporum

In the US, the main causative organism is Trichophyton tonsurans (anthropophilic, meaning humans are the main host).

Organisms such as Microsporum canis and Trichophyton mentagrophytes can cause tinea capitis in humans but are considered zoophilic (meaning this infection's main host is animals).

•There are also some African endemic species that are being seen more often in the US, related to immigration from Africa

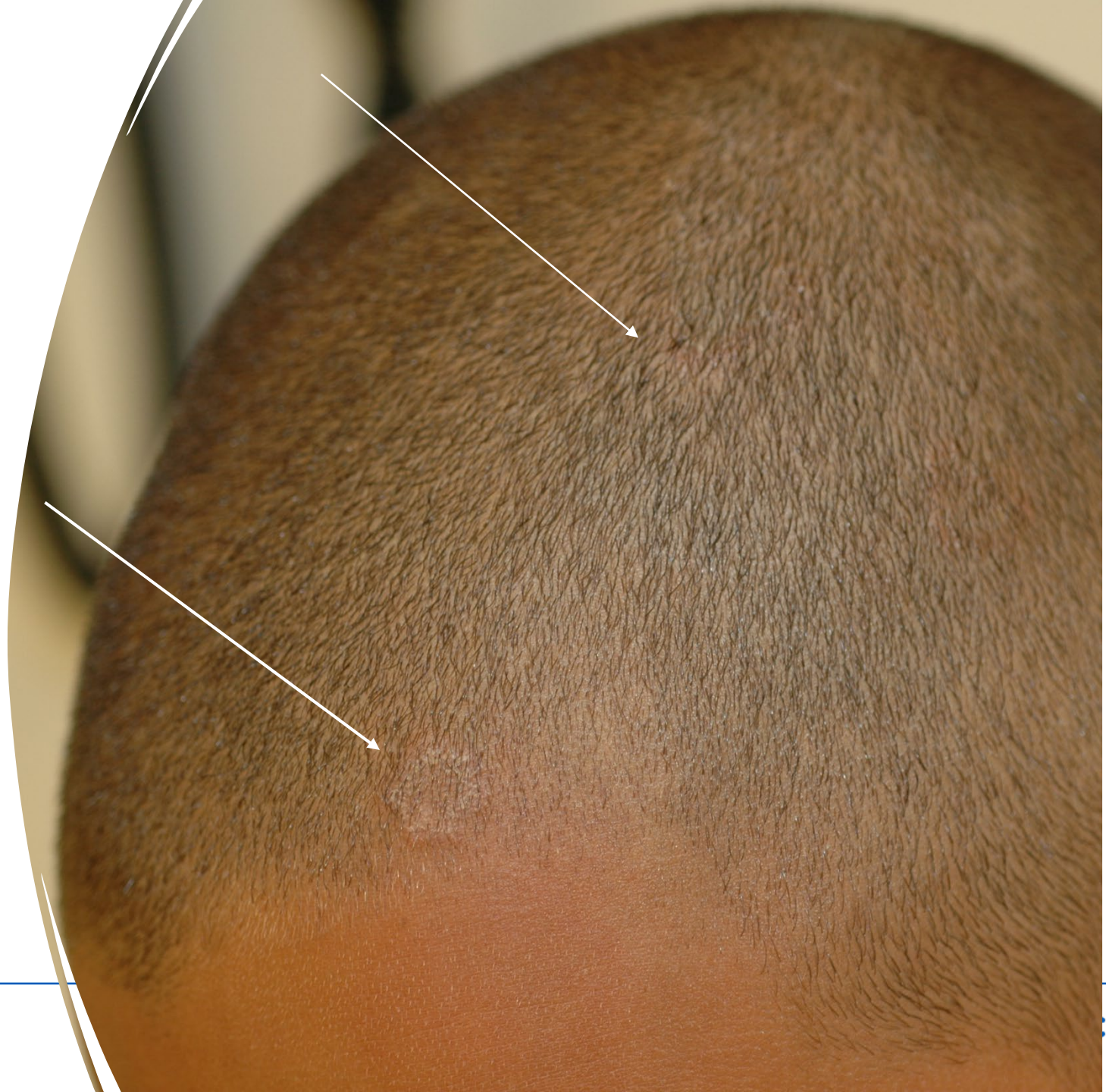
M. audouinii
T. soudanese
T. violaceum
T. schoenleinii

Transmission of Tinea Capitis

- Transmission most commonly occurs by indirect contact with fallen hair and epithelial cells. (Direct head-to-head transmission appears to be rare)
- Can occur through hairbrushes, combs, shared hats.
- Genera of Trichophyton and Microsporum have been isolated from: barbershop instruments, combs, hairbrushes, bedding, clothing, furniture, theater seats, and towels. Co-sleeping has been associated with spread of infection.
- Microsporum canis has been found to be transmitted to humans by both dogs and cats. Guinea pigs may also occasionally transmit infections to humans

Anthropophilic infections

- Less inflammatory, sometimes minimal symptoms that may progress to a more inflammatory presentation over months
- Black dot presentation – black dot appearance from broken hairs
- Seborrheic-like – dandruff like, scales and flaking of scalp, gray patchy scaling

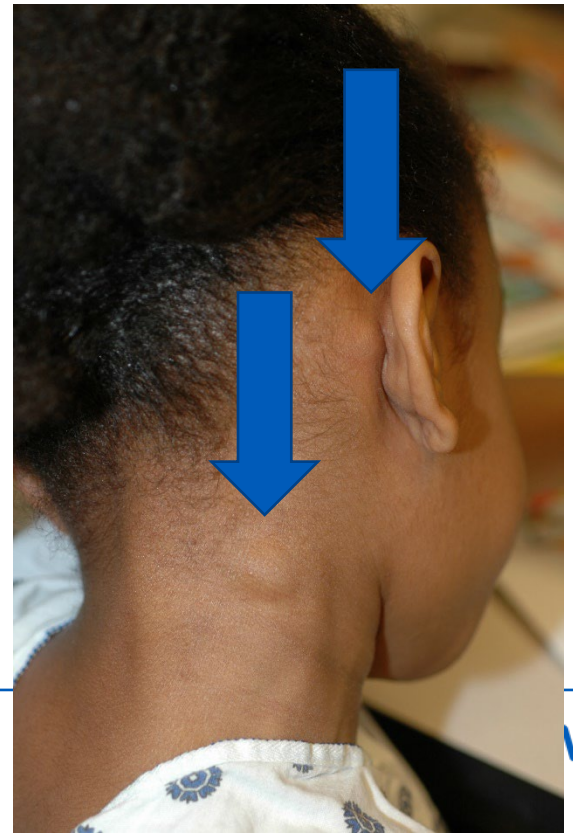


Zoophilic infections

- More likely to present with an inflammatory reaction, or more impressive looking infection, early in the course of infection.

Clinical signs of tinea capitis

- Scaling
- Alopecia (hair loss)
- Pruritus (itching)
- Occipital/post auricular lymphadenopathy
- Kerion (abscess caused by fungal infection)



In one study, the authors found that occipital lymphadenopathy was the most predictive clinical sign of culture proven tinea capitis.

Clinical patterns

Pediatrics in Review article summarizes 6 clinical patterns associated with tinea capitis

- Black dot
- “gray patch” – patchy and scaly alopecia with or without erythema
- Diffuse scale – widespread scaling of scalp with or without erythema
- Diffuse pustular – scattered pustules with scale, alopecia and lymphadenopathy
- Kerion – dramatic boggy, erythematous, tender plaque with pustules
- Favus – dramatic yellow cup-shaped crusts around the hair

How can a dermatophyte infection be diagnosed?

- Wood's light (black light) –some infections fluoresce with this light, but the most common dermatophytes causing infection in the US do not fluoresce.
- Trichoscopy (microscopic visualization of the hair) --can determine presence of infection and species identification, but requires training and experience by providers
- Microscopic confirmation –scraping skin/nail clippings on slide with potassium hydroxide (KOH) allows fungal elements to be visualized under microscope
- Fungal culture = Gold standard. Can diagnose and identify causative species.

Key Diagnosis Takeaway:

Fungal culture is the gold standard technique for diagnosing dermatophytosis (tinea corporis, tinea capitis, etc).

Confirmation of tinea infection is essential before initiating oral treatment. Other overlapping presentations include contact dermatitis, acneiform eruption, bacterial infection, and zoster.

Treatment and Management of Tinea Capitis

- Oral medication is needed for treatment of infection over hair bearing areas, topical medication is not sufficient
- There are currently no treatment guidelines for tinea capitis in the US, despite treatment guidelines in other countries.
- Current literature suggests that oral griseofulvin is the gold standard amongst USA healthcare providers, but recommendations are shifting toward terbinafine for first line treatment.
- Other newer antifungals used in clinical practice for tinea capitis include itraconazole and fluconazole but are considered off-label because they are not FDA approved for tinea capitis

Case 2 Revisited

- A 6-year-old girl is sent to your office after her teacher noticed her scratching her head. She tells you, "My mom keeps looking at my head and says she sees scaly spots and tells me I'm losing my hair. I'm going to the doctor for it next week."

Nurse Response:

Referral to primary care office for culture and treatment, avoid sharing hats, brushes, etc.

Red Book Recommendations

- Tinea corporis: Athletic mats and equipment should be cleaned frequently, and actively infected athletes in sports with person-to-person contact must be excluded from competitions. Athletes with tinea corporis can participate in matches 72 hours after commencement of topical therapy and when the affected area can be covered.
- Tinea capitis: If discovered while at school, the affected student need not be sent home early. Once therapy is initiated, children should not be excluded from school.

Case 3

Child says:

An 8-year-old comes to your office with many small bumps all over his skin, especially near one underarm. He tells you, "I've had these bumps since I was 7, and my doctor tells me they'll go away, but they're not going away. Now the bumps are turning red and I'm getting dry, itchy spots all over."

Molluscum Contagiosum

- Is a common infection, caused by molluscum contagiosum pox virus.
- It is not considered a sexually transmitted infection in children, and genital and perianal lesions are not uncommon.
- Present as umbilicated (central dell or depression), pearly papules, that often appear translucent. They range in size from 2-8mm.
- Though single lesions can occur, molluscum most often presents with numerous clustered papules.
- Spread through autoinoculation (patient spreads it themselves through scratching or touch), direct contact, or vehicles such as towels or swimming.
- Benign and self-limiting (without treatment they resolve on their own)
- Often resolve spontaneously within 9 months, but in some kids, this can take several years

Molluscum Contagiosum

- Spreads more rapidly in children with atopic dermatitis.
- Some children may develop a very high number of lesions
- When the body mounts an immune response, lesions can become very red.
- Surrounding dermatitis, “molluscum dermatitis” is common

Resolving Molluscum and Molluscum Dermatitis (Beginning of the End)

Treatment of Molluscum Contagiosum

- Even though spontaneous clearing of molluscum contagiosum occurs over years, parents may request treatment for various reasons: cosmetic concerns, pruritus, or due to concerns expressed by other parents, teachers or school nurses.
- There are very few randomized controlled trials looking at treatment for molluscum.
- Provider must consider risk of pain or trauma related to treatment before considering treatment.

Treatment of Molluscum Contagiosum

- Traditional therapies include cryotherapy and curettage (destructive therapies). These can be painful, often poorly tolerated
- Other treatments include salicylic acid, KOH, lemon myrtle oil, and imiquimod cream, though there is a lack of good-quality evidence supporting these treatments
- Some centers may treat molluscum with immunotherapy, by injecting Candida or Trichophyton antigens. Forbat et al states that there is a, "paucity of supporting evidence".

Forbat, E., Al-Niaimi, F., & Ali, F. R. (2017). Molluscum contagiosum: Review and update on Management. Pediatric Dermatology, 34(5), 504–515. https://doi.org/10.1111/pde.13228

Cantharidin for the treatment of molluscum contagiosum

- Cantharidin is considered effective and is well tolerated
- Considered first line treatment for molluscum contagiosum by many practitioners
- In-office application of cantharidin (extract from the blister beetle, Cantharis vesicatoria) induces blisters when applied to the skin. Blisters form within 24-48 hours. Blisters cause extrusion of the molluscum body and resolution of the lesion.
- Limitations: access to cantharidin in the US is very limited or unavailable
- FDA is currently evaluating a topical cantharidin product. If approved this would be the first product approved by the FDA to treat molluscum

Children's Mercy KANSAS CITY

Case 3

Child says:

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Nurse response:

Reassurance – redness and itching often occurs before the molluscum resolve, moisturizer to soothe skin, possible over the counter hydrocortisone ointment if very itchy

Red Book Recommendations

- Molluscum contagiosum should not prevent a child from attending child care or school or from swimming in public pools. Covering lesions is not necessary for child care, but when possible, localized lesions not covered by clothing may be covered with a dressing when participating in sports activities.[124]

Children's Mercy
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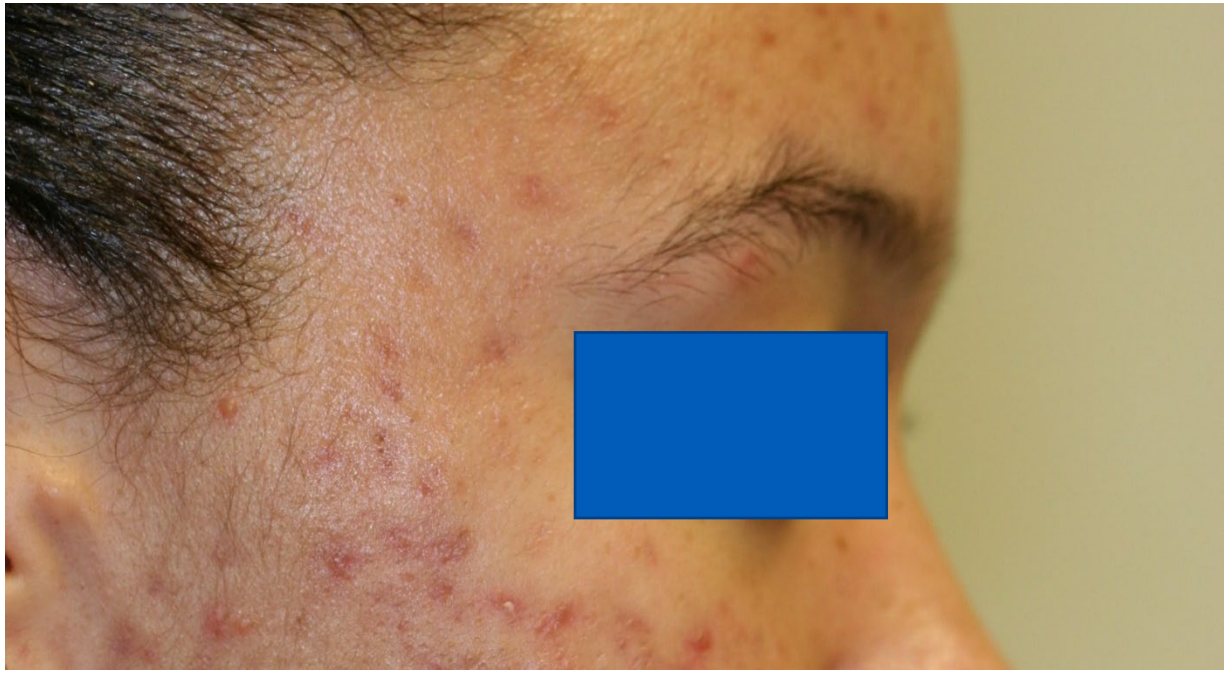

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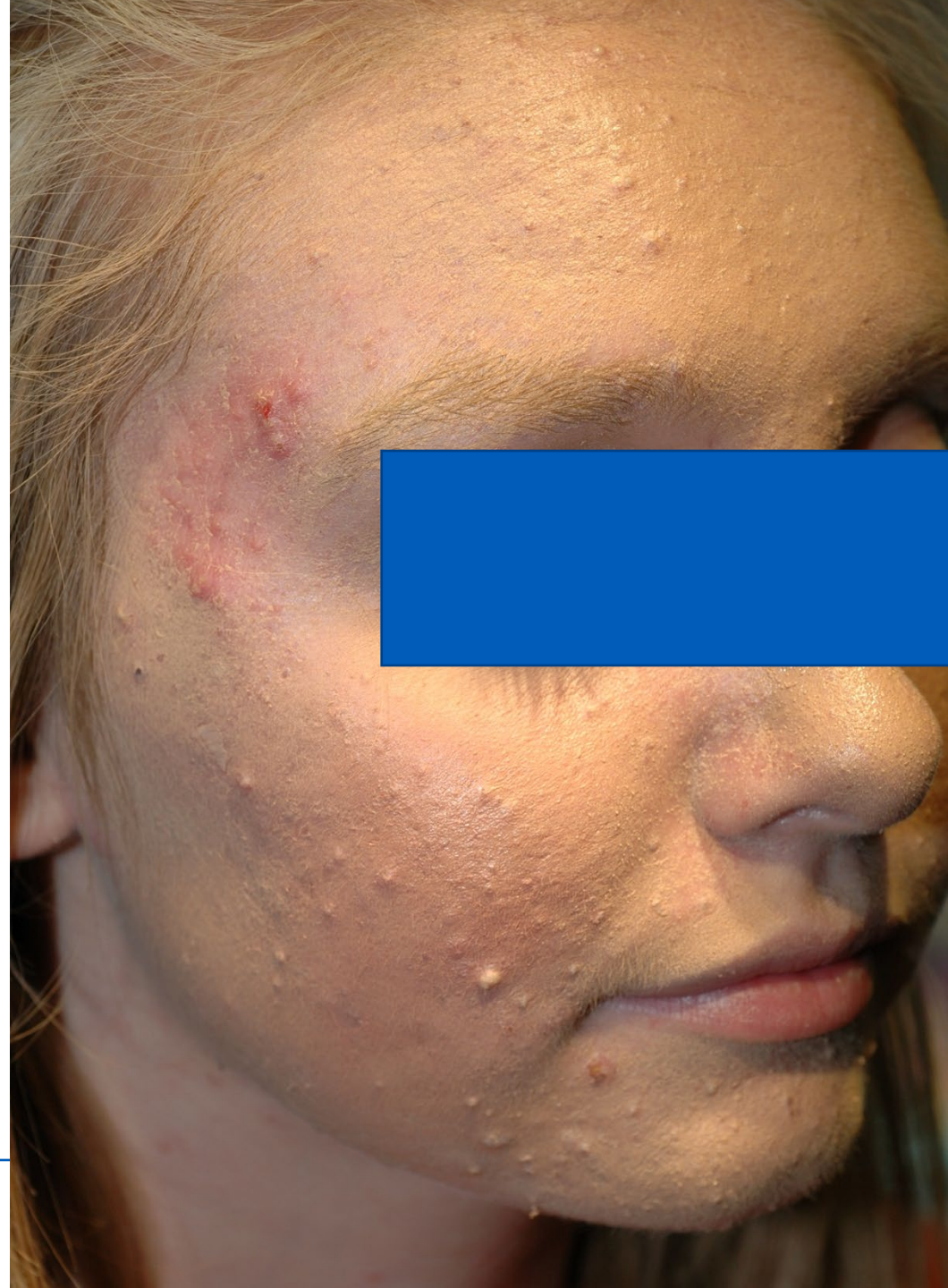
Case 4

- 15-year-old female says:

I squeezed a pimple on my cheek and now it's bleeding. I thought I'd come to get some gauze. Can I sit in here for a few minutes because the kids in my 3rd period are mean [looks sad].



Acne Vulgaris

- Extremely common skin condition in adolescents, though not uncommon in adults and can also be seen in children.
- Affects approximately 85% of teenagers.
- Acne is a multifactorial inflammatory disease of the pilosebaceous follicles of the skin.

Acne Pathogenesis

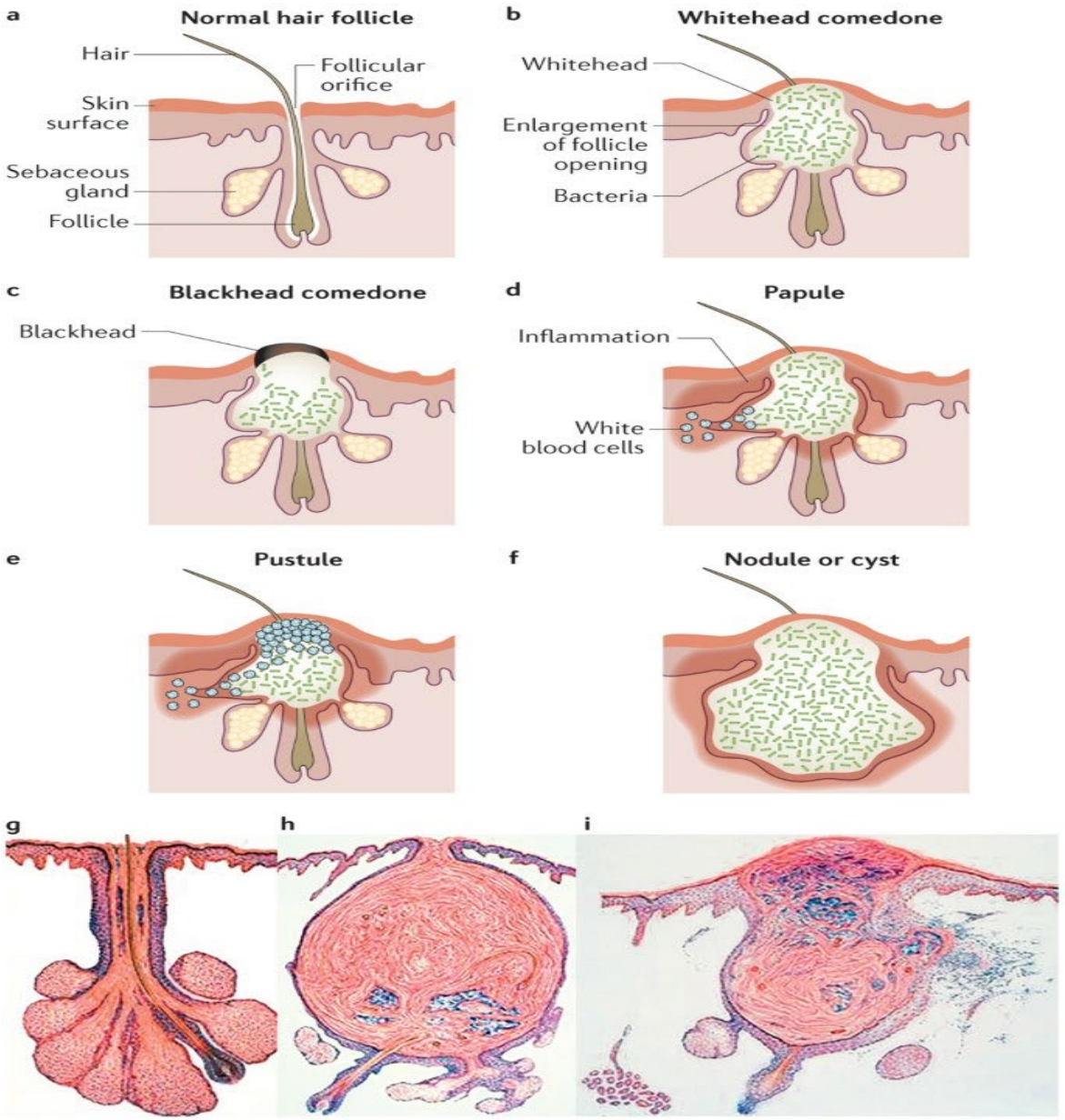
- Current understanding of acne pathogenesis is evolving.
- Key factors that play an important role in development of acne include:

1) follicular hyperkeratinization (the cells of the follicle become cohesive and do not shed normally onto the skin's surface)

2) microbial colonization with C. acnes

3) sebum production

4) complex inflammatory mechanisms involving both innate and acquired immunity



Nature Reviews | Disease Primers

Psychosocial Impacts

- Acne is associated with significant physical and psychological morbidity – such as permanent scarring, poor self-image, depression and anxiety.
- Acne is associated with an increased prevalence of mood disorders, psychiatric hospitalizations, school absenteeism, unemployment and suicidality.
- Acne has a detrimental impact on social, emotional and psychologic function comparable to asthma and epilepsy
- Treatment has been shown to improve quality of life
- Cost of acne in US is $3 billion per year

Physical Exam

Notable features include open or closed comedones (blackheads and whiteheads) and inflammatory lesions, including papules, pustules, or nodules (also known as cysts)

Mild Acne

- Open Comedones = Blackheads
- Closed Comedones = Whiteheads

Moderate acne

- Papules and Comedones

Severe acne

- Comedones, Papules, Pustules, Nodules and Scarring

Acne Treatment

- Treatment algorithms are based on the severity of acne
- Mild acne can be treated with topical therapies that are available either OTC or by prescription.

Mild acne treatment algorithm includes:

-benzoyl peroxide or

-topical retinoid or

-combination of topical benzoyl peroxide with topical antibiotic or

-retinoid + benzoyl peroxide + topical antibiotic

Acne treatment

- Moderate acne treatment algorithm includes:

-Topical combination therapy (combination of topical benzoyl peroxide with topical antibiotic or retinoid + benzoyl peroxide + topical antibiotic) or

-Oral antibiotic + topical retinoid + benzoyl peroxide or

-Oral antibiotic + topical retinoid + benzoyl peroxide + topical antibiotic

Other considerations for females include oral contraceptive pill or oral spironolactone

Acne Treatment

- Severe acne treatment algorithm includes

-Oral antibiotic + topical combination therapy or

-Oral Isotretinoin

Other considerations for females with severe acne again include oral contraceptive pill or oral spironolactone

Other acne treatments and notes

- Topical Azelaic Acid 20%
- Dapsone 5% gel
- Sulfacetamide + sulfur
- Clascoterone 1% cream – topical androgen receptor inhibitor
- Salicylic acid (clinical trials demonstrating efficacy of salicylic acid are limited)
- Emerging evidence that high glycemic index diets may be associated with acne
- Several observational studies suggest that certain dairy products, especially skim milk, may aggravate acne (though no randomized controlled trials have been conducted)
- Endocrine evaluation is only warranted in certain cases, because most acne patients will have normal hormone levels. Consider in prepubertal child with acne, early-onset body odor, axillary or pubic hair, accelerated growth or genital maturation

Common acne questions from teens

- Is stress causing my acne? No, but it might make it worse.
- Is my diet causing my acne? Probably not.
- Does sweating make acne worse? Sometimes.
- Can I pop my pimples to make them go away faster? No!
- Can I go tanning to help my acne? No!!
- Will my dark spots from old acne be there forever? No.
- Can I wear makeup to cover my acne? Yes. Oil-free!
- Acne is not that big of a deal, right? Yes and No!

What Medications are available OTC?

- Benzoyl Peroxide (wash or cream) - antimicrobial that fights inflammation. May cause mild irritation, dryness, and bleaching of fabric.
- Topical 0.1% Differin Gel (Adapalene 0.1% gel)
  - The only topical retinoid available OTC
  - Unplugs oil glands by helping peel away layers of skin
  - Mild irritation and dryness may occur
- Tips for application:
  - Apply to clean, dry skin.
  - Takes several weeks to months to work.
  - Start off every other day and apply oil-free moisturizer afterwards.

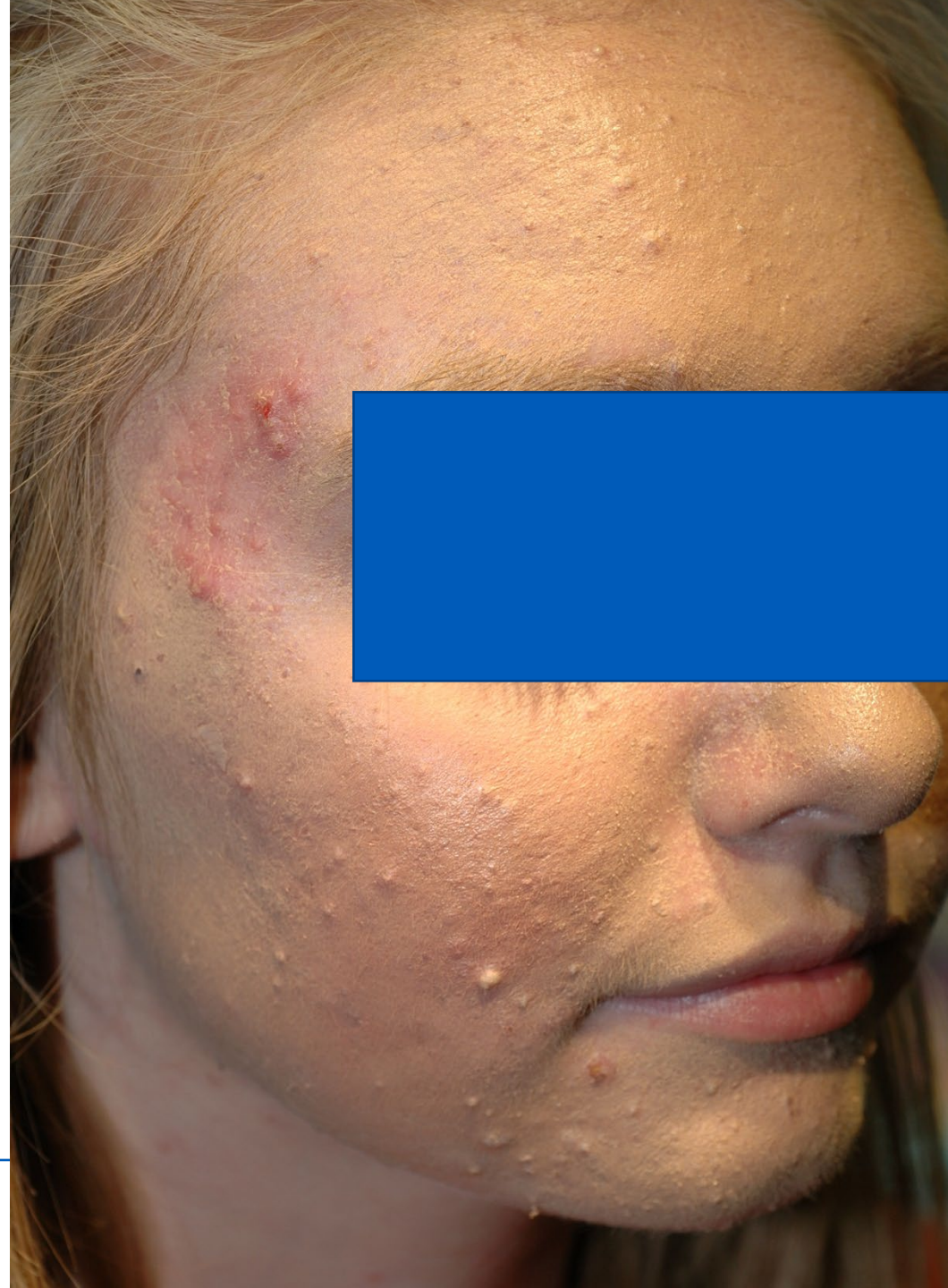
Case 4 Revisited

15-year-old female says:

I squeezed a pimple on my cheek and now it's bleeding. I thought I'd come to get some gauze. Can I sit in her for a few minutes because the kids in my 3rd period are really mean [looks sad].

Nurse Response:

Assess emotional/mental well-being. Refer to a dermatologist for treatment. Suggest daily benzoyl peroxide and Differin (adapalene) gel to acne prone areas until evaluated.



Case 5

- 8-year-old child says:

"I fell off my bike last week and got a small scrape. Now the scraped area is oozing and painful. It looks worse."

Impetigo

- Impetigo is a highly contagious bacterial skin infection
- Commonly occurs in young children but adults may also be affected
- Global median childhood prevalence is estimated to be 12.3% with a peak in tropical, low-income settings.

Impetigo

- Causes
  - Main cause is Staphylococcus aureus (S. aureus)
  - Less frequently Streptococcus pyogenes (S. pyogenes – AKA Group A Strep)

  Risks: warm, humid climate, poverty, crowding, poor hygiene and underlying scabies

Bullous Impetigo

- Bullous Impetigo – usually large, transparent superficial bullae (blisters) before rupturing, after rupture leave round erosions that become crusted
- Frequently occurs in intertriginous areas and the trunk
- Caused by strains of S. aureus that produce toxin A which induces a loss of cell adhesion in superficial epidermal layers by targeting protein desmoglein-1

Non-bullous Impetigo

- Non-bullous impetigo – frequently presents on the face around the nose and mouth with erythematous pustules or vesicles changing to superficial erosions
- Characteristic "honey colored crust"
- Can also occur elsewhere on the body and are usually smaller than 2 cm and either not painful or minimally painful
- Frequently impetigo occurs without remarkable redness or constitutional symptoms, though regional lymphadenopathy may be present
- Non-bullous impetigo accounts for 70% of cases and usually resolves without complications

Impetigo

Primary: direct bacterial invasion of an intact skin

OR

Secondary: secondary infection of pre-existing skin disease or traumatized skin (infection over atopic dermatitis, scabies, cuts, abrasions, insect bites, and chicken pox).

Secondary impetigo is also called impetiginization.

Red Book Recommendations

- Children with *S aureus* colonization or infection should not be excluded routinely from child care or school settings. Children with draining or open abrasions or wounds should have these covered with a clean, dry dressing. Routine hand hygiene should be emphasized for personnel and children in these facilities.
- Strategies focusing on hand hygiene, environmental disinfection, and wound care have been effective at limiting transmission of *S aureus* and preventing spread of infections in community settings
- Children with GAS pharyngitis or skin infections should not return to school or child care until well appearing and at least 12 hours after beginning appropriate antimicrobial therapy. Close contact with other children during this time should be avoided.
- Up to date: Return to school — Children can return to school 24 hours after beginning an effective antimicrobial therapy. Draining lesions should be kept covered.

Impetigo Mimics

- Contact dermatitis
- Eczema herpeticum
- Herpes Simplex Virus
- Scabies
- Tinea Infection
- Bullous insect bite reactions
- Varicella

Impetigo Treatment – Topical

- If infection is localized, and in a child greater than 2 months, with <10 vesicles, and patient does not have a compromised immune status:
  1. Cleanse skin to remove crust
  2. Topical Antibiotic for at least 5 days. Topical prescription antibiotics for impetigo include Ozenoxacin 1% cream, Mupirocin 2% ointment, Retapamulin 1% ointment, Fusidic acid

Impetigo Treatment – Oral

- If there are numerous lesions, if child is <2 months of age, if immunocompromised, or if the outbreaks are affecting several people

1. Oral antibiotic for 7 days
2. Perform culture and sensitivity testing
3. If fever, signs or symptoms suggesting more serious disease, consider hospitalization

Case 5

- 8-year-old child says:

"I fell off my bike last week and got a small scrape. Now the scraped area is oozing and it hurts. It looks worse."

Nurse: Clean the wound to remove the crusting and start antibiotic ointment twice daily for 5-7 days.

Case 6

- A 14-year-old female presents to your office complaining of pain and burning on the corner of her lip for the past three days. On the first two days, she could just feel it on the inside, but today she has crusted blisters with surrounding redness and shallow erosions on the lower lip.

Herpes Simplex Virus

- Common viral infection that presents with localized blistering – also called a cold sore or fever blister
- After acute infection, the virus rapidly replicates and establishes latent infection in regional nerve ganglia –usually repeat episodes occur in same sites
- May be reactivated by fever/URI, sun exposure, trauma/procedures to affected area, stress, menses
- HSV-1 usually associated with oral/lip lesions and HSV-2 with anogenital lesions, but either strain can affect almost any skin/mucous membrane
- May affect various body sites – lip/mouth is most common, but may also affect eyes, face, fingers, or genitals
- Transmitted by direct or indirect contact with someone with active HSV

HSV Diagnosis and Complications

- Diagnosis: clinic diagnosis, or may confirm by culture or PCR
- Complications:
  - Eye infection – conjunctivitis and corneal ulceration
  - Eczema herpeticum – widespread infection in patient with atopic derm
  - Nervous system – cranial/facial nerves may be infected and cause temporary paralysis of affected muscles

Herpes Simplex Virus Treatment

- Mild, uncomplicated eruptions of HSV require no treatment
- Severe infections may require PO treatment:
    - Oral acyclovir, famciclovir or valacyclovir are recommended for localized cutaneous HSV
    - Oral acyclovir has been used in children safely
- No medication will prevent recurrence of HSV, but prophylaxis may prevent transfection to others or adjacent skin
- Prophylaxis considered if patient experiencing frequent, severe recurrences
- Sun exposure can trigger facial HSV, so sun protection is important

Herpes Simplex in Athletes

- Herpes Gladiatorum (wrestlers)
  - HSV has been transmitted during athletic competition involving close physical contact and frequent skin abrasions, such as wrestlers
  - Prevent transmission by
    1. Examine wrestlers for vesicular lesions on exposed areas of bodies and around mouth and eyes before practice or competition
    2. Exclude athletes from competition or practice until healing (fully crusted lesions) occurs or health care provider's written statement declaring their condition noninfectious
    3. Clean wrestling mats with bleach mixture between matches

Case 6 – Nurse Response

- A 14-year-old female presents to your office complaining of pain and burning on the corner of her lip for the past three days. On the first two days, she could just feel it on the inside, but today she has crusted blisters with surrounding redness and shallow erosions on the lower lip.
- Nurse: "This looks like a cold sore. It should go away on its own without treatment. If you get these frequently, you can ask your PCP for medication to take when you feel a flare coming on. Use sun protection, since sun can trigger flares. Also, while you have an active cold sore, don't share lip gloss, water bottles, etc. and Don't touch anyone else with your lips!!"

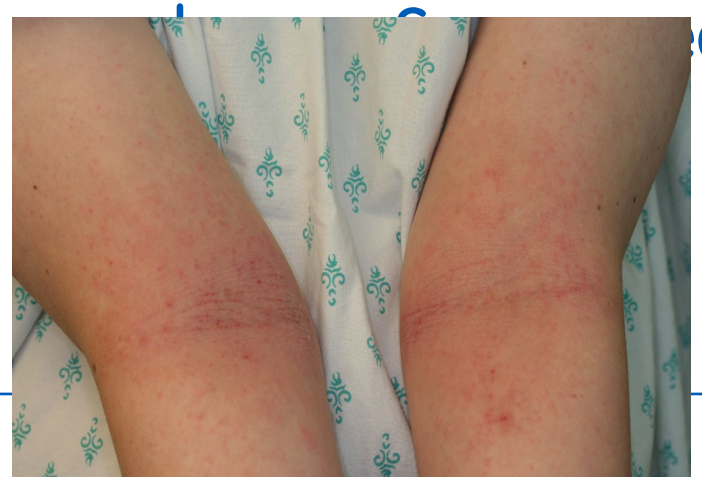
Red Book Recommendations

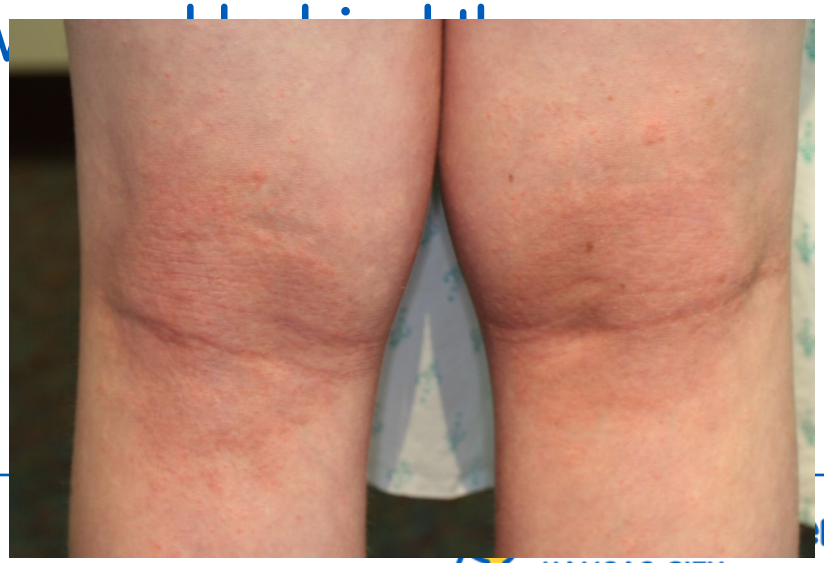
Care of Children With HSV Mucocutaneous Infections Who Attend Child Care or School

- Oral HSV infections are common among children who attend child care or school. Most of these infections are asymptomatic, with shedding of virus in saliva occurring in the absence of clinical disease. Only children with HSV gingivostomatitis (ie, primary infection) who do not have control of oral secretions should be excluded from child care. Exclusion of children with cold sores (ie, recurrent infection) from child care or school is not indicated. HSV lesions on other parts of the body should be covered with clothing or a bandage, if practical, for children attending school or day care. Additional control measures include avoiding the sharing of respiratory secretions through contact with objects and washing and sanitizing mouthed toys, bottle nipples, and utensils that have come in contact with saliva.

Case 7

- A kindergartener is sent to your office, because she is scratching her skin constantly. She can't pay attention in class, and the scratching is distracting other kids. She also feel asleep in class yesterday.
- When you look at her skin, it appears very dry all over and has red, inflamed patches on the insides of the elbow
eas are even bleeding.





Atopic Dermatitis (Eczema)

- A chronic, pruritic inflammatory skin disease
- Onset most common between 3 and 6 months of age
- Genetic, immunologic, and environmental factors that lead to dysfunctional skin barrier and dysregulation of immune system
- Essential Features:
    - Pruritus
    - Eczema (inflammation of skin)
    - Typical morphology and age-specific patterns
    - Chronic or relapsing history
- Important Features:
    - Early age of onset
    - Atopy – personal or family history
    - Xerosis

Distribution of AD by Age

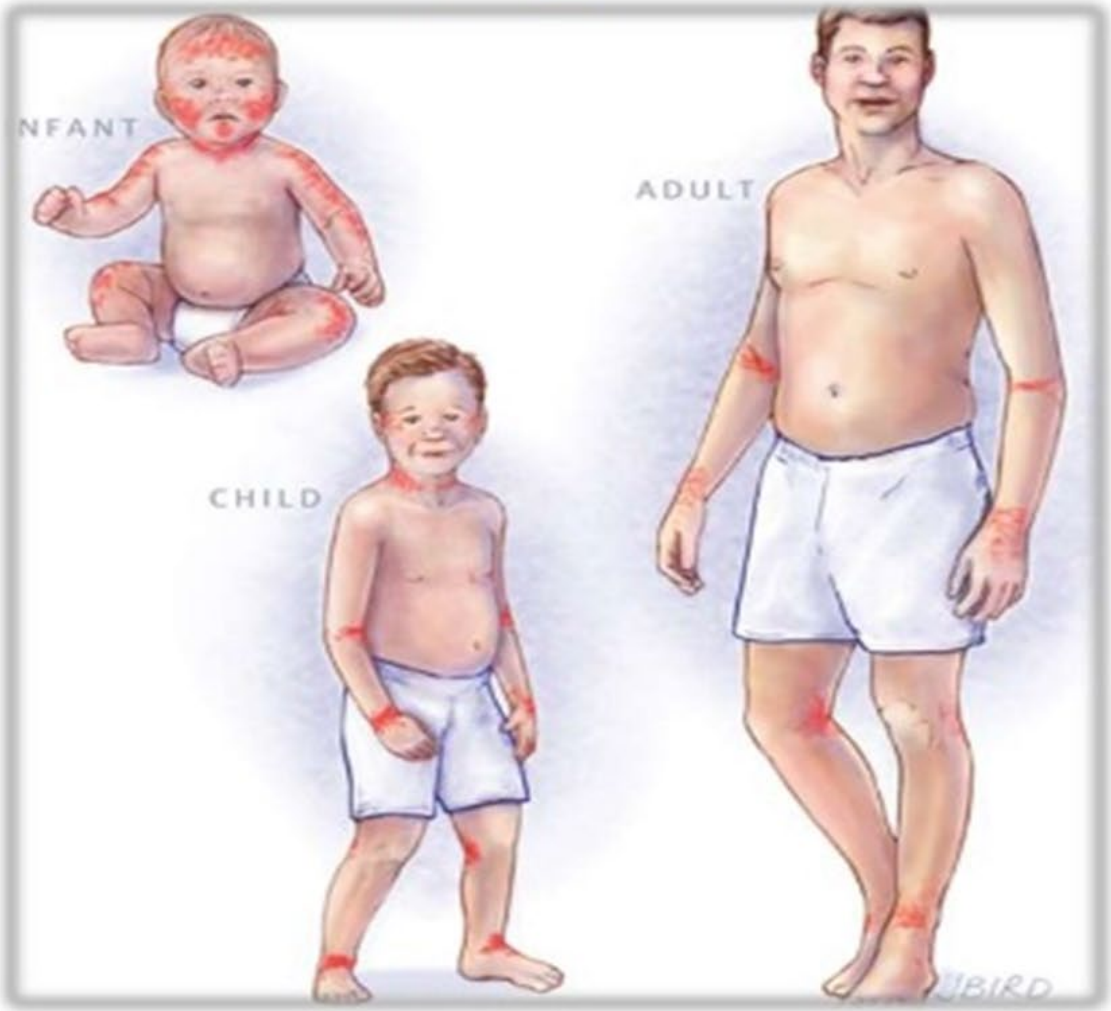
Infant

(birth-2 years)

Face (cheeks), scalp, ears

Extensor extremities

Seborrheic dermatitis overlap



Childhood

(2 years-puberty)

Face (cheeks)
Flexural extremities

Teenager-Adult

Localized flexural extremities

Hands, dorsum feet

Atopic Dermatitis - treatment

- Non-pharmacologic Interventions
  - •Moisturizer – fragrance free ointment or cream
  - •Bathing – daily or every other day with immediate application of moisturizer
  - •Dye-free, scent-free products
  - •Dilute bleach baths
  - •Wet Wraps

Atopic Dermatitis - treatment

- Pharmacologic Treatment
  - •Topical steroids
    - •Mainstay of anti-inflammatory therapy - used for over 60 years
    - •7 classes (1 is strongest and 7 is weakest)
    - •May use mid to high potency for short courses in children, but use least potent steroid that is effective for long-term management
    - •Adverse effects:
      - Telangiectasia, striae, skin atrophy
      - Hypothalamic-pituitary-adrenal axis suppression
  - •Antihistamines
    - Daytime antihistamine such as cetirizine (Zyrtec) in kids with seasonal allergies
    - Sedative antihistamines (Benadryl, hydroxyzine) to help with sleep
    - Topical Antibiotics and Oral Antibiotics for secondary infection

Atopic Dermatitis – Treatment

- Dupixent (Dupilumab) SQ injection
  - Human monoclonal IgG4 antibody that inhibits IL-4 and IL-13
  - The first biologic approved to treat children with moderate to severe AD
  - Side effects: eye/eyelid inflammation, injection site reactions, and cold sores
  - SQ injection every 2-4 weeks, given at home

Atopic Dermatitis – Practical Tips

- Keep moisturizer in fridge to help with itch
- Use cool washcloth to sooth itch
- Try tapping skin or rubbing instead of scratching
- Give a fidget toy to keep hands busy
- Focus on what you want kids to do when they are itchy ("put on Vaseline, rub skin") instead of what you don't want them to do ("stop scratching!")
- Breathing exercises and meditation can help calm the mind when kids are particularly itchy

Partner with Parents and Teache

- Ask parents about specific triggers (sweating, fragrances, outdoor allergens, etc.)
- Ask about any strategies that parents have found helpful to stop scratching
- Have moisturizer and unscented soap available
- Help child explain eczema to other kids
  - "Eczema causes dry, itchy skin, and it is not contagious. You can't catch it. Sometimes I have to use creams and medicines to make it better."
- Involve therapist if child needs support: managing stress, habit reversal for scratching, treating anxiety/depression, interventions to improve sleep
- Talk to child's class about eczema
- Watch out for teasing and social isolation
- Have books available in the classroom or school library that feature kids with eczema or other skin conditions
- **Download Your Free Copy of**

Eczema: Tools For School from nationaleczema.org

Case 7 – Nurse Response

- A kindergartener is sent to your office, because she is scratching her skin constantly. She can't pay attention in class, and the scratching is distracting other kids. She also fell asleep in class yesterday.
- When you look at her skin, it appears very dry all over and has red, inflamed patches on the insides of the elbows and behind the knees. Some areas are even bleeding.
- Nurse:

"Wow, you seem really itchy! Let's apply the Vaseline your parents left in my office to all the itchy areas and cover up the spots that are bleeding. I'm going to talk to your parents

about your eczema to see if they have any tips.

You can take this stress ball back to class to squeeze

when you feel itchy. If you'd like, we can also set up a time with

your teacher that either you are I can talk to your classmates abou

eczema, if you want them to understand more about it."

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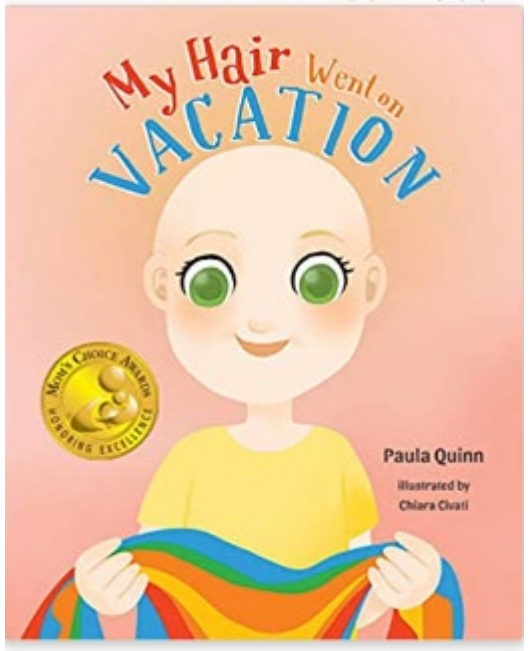
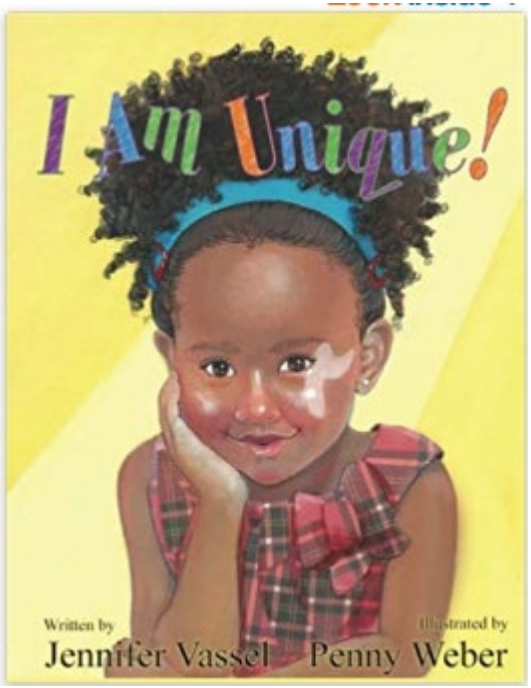
Support diversity and inclusion in your school library





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Thanks to school nurses for being there every day for our kids!

If you have questions, feel free to email us!

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