Common Childhood Rashes

The Itchy and the Scratchy

presented by Trina Blythe MD, FAAP
Objectives

- Be able to identify some of the most common rashes of school age children
- Determine which rashes require exclusion and when to readmit to a group setting
- List some control measures for different rashes
- Determine when to allow return to sports
Case #1

- 13 year old male is sent to your office for evaluation of this rash.
- He tells you it has been present for 2-3 days and it is getting worse.
- It started out as small red bumps that got larger and filled with fluid. The lesions popped and developed into brownish plaques.
- He otherwise feels fine.
Impetigo

- Superficial bacterial skin infection caused by Staph Aureus, Group A Strep or Strep Pyogenes
- Small red papules or fluid filled vesicles blisters with crusted yellow scabs found most often on the face but may appear anywhere on the body.
- Contagious
- Risk factors: scrape, abrasion or compromised skin integrity like eczema
- Spread: direct contact with the sores of an infected person or contaminated items
Impetigo Control

- Wash the affected area, cover lesions then exclude infected individuals at the end of the day until topical, oral or other systemic antibiotics are started.

- Readmit to a group setting once 24 hours of treatment has passed. Keep lesions covered until they are dry.

- Return to play guidelines: No new skin lesions for at least 48 hours (2 days). Completion of a 72 hour (3 day) course of directed antibiotic therapy. No further drainage from the wound.
7 year old second grader comes into your office because he can't stop fidgeting and itching.

He tells you that the rash started yesterday and seems to be getting worse.

4 days ago, he went looking for frogs alongside a creek near his house with his two older sisters who also have rashes now.

He otherwise feels fine.
Poison Ivy

- An allergic contact dermatitis induced by a plant. (Type IV delayed hypersensitivity reaction)

- First red streaks or papules on exposed skin; later vesicles and bullae develop. Classically the lesions are in a linear pattern

- Not Contagious.

- The rash is caused by coming in contact with the resin urushiol which is contained in the sap and oils of the poison ivy, sumac or oak plant. The oil soaks into the dermis within 30 minutes but the rash takes a few days to develop and can appear to "spread" because different areas will develop on a different time line.
Poison ivy control

- Most cases occur by direct contact with the plant but the resin can contaminate clothing, shoes, pets and tools.

- The student should wash the exposed clothing and shoes.

- Previously sensitized individuals usually develop the rash within 2 days. It can take up to 2 weeks to appear.

- The rash typically resolves within 3 weeks.
Case #3

- 16 year old comes into the office with a rash.

- She was more tired than usual over the weekend. On Saturday her temp was 100.9 but no fever yesterday. and she felt well enough to come to school today.

- Her temp is 99.6 and she has this rash.
You suspect chicken pox so you quickly check her vaccination record and see that she has had two doses of vaccine.

You also find out she works part time at an after school care program where one of the children was sent home with a rash

Does she need to be sent home?
Varicella

- A viral infection with rash and fever caused by herpes virus varicella-zoster

- The rash is small red macules and vesicles that blister over 3-4 days and then scab over. Blister crops will come out over several days. The patient will typically have rash in all 3 stages various stages at once of red spot, blister and scab. May involve mouth, ears, genital areas and scalp. Does NOT appear on palms and soles

- Highly contagious

- Spread via airborne route and fluid from blisters

- Exclude from group setting

- Readmit once all lesions are scabbed over. In cases of vaccine modified chicken pox stay home until no new lesions for 24 hours.
Varicella control

- Vaccinate all children 12 months or older and give a booster dose of vaccine at age 4-6 years
- Vaccinate older children, teens, and adults who are susceptible. Those who have not received two doses of vaccine and have never had natural infection.
- Exclude infected individuals until rash is crusted over.
Shingles

- A reactivation of varicella virus within the body of someone who previously had chicken pox in the past
- Appearance of red bumps and blisters in a narrow band on half of the body. They may be painful or itchy or both
- Contagious
- Infection occurs when the virus reactivates due to a suppression of the immune system.
- Touching the shingles lesions can cause chicken pox in an unvaccinated person or someone who has never had chicken pox.
Shingles Control

- If the lesions can be kept covered and the person feels well enough to participate then they do not need to be excluded from a group setting.

- If the lesions can not be kept covered then they have to be excluded

- Readmit to a group setting once the lesions can be covered or have crusted over.
Case #4

- 6 year old comes into the office with complaints of a sore throat.
- She has a fever of 101
- She has younger siblings in daycare who have been sick with fever and a rash
Hand Foot and Mouth

• An infection caused by a Coxsackie virus A16 and Enterovirus 71

• Tiny blisters in the mouth and on the fingers, palms of hands, buttocks, and soles of feet that last a little longer than a week

• Contagious

• Spread from person to person by contact with respiratory droplets or by contact with feces
Hand Foot and Mouth control

- Do not exclude from group setting unless child is ill appearing, has a fever

- If excluded readmit to group setting once fever free and feels able to participate.
Case #5

- 6 year old presents with worsening rash over the past week.
- It started out smaller and has gotten larger in size.
- He otherwise feels well.
Tinea Corporis

- A superficial skin infection caused by a fungus
- Usually a well circumscribed circular lesion with scale
- Contagious
- Infection occurs when there is compromised skin such as a scrape, abrasion or eczema and the fungus enters the open area.
- Spread by close skin to skin contact
- Does not need to be excluded from school but should be kept out of sports where close skin to skin contact would occur
- Return to play guidelines: Oral or Topical anti-fungal medicine as prescribed by physician for at least 72 hours (3 days) for tinea corporis or 14 days for tinea capitis.
- Lesions must be adequately covered when the athlete is cleared to return to activity.
Case #6

- 16 year old comes in with a rash on his forehead. He has had this rash before and it usually goes away in a week. He has a big wrestling tournament this weekend. Can he play?
Case #6
Herpes infection

- Infection caused by the herpes virus

- Lesion: Numerous clustered vesicles (blisters) filled with clear fluid on a reddened background. The vesicles continue to develop for 7-10 days and eventually become dry, crusted lesions. Recurrent outbreaks are sometimes preceded by irritability, headache, and tingling, burning and/or itching of the skin at the site of recurrence

- Contagious

- Infection is transmitted from person to person by direct contact

- No need to exclude from school if feeling well and can control secretions. good hygiene especially after touching lesions

- Return to play Must be free of fever, malaise (feeling ill), etc. No new blisters developed in past 72 hours (3 days). Existing lesions must be covered in a dry crust. Completed a minimum 120 hours (5 days) systemic antiviral therapy as prescribed by physician.
Cases #7

- An 11 year old comes in complaining of a sore throat.
- Temp 101.7
- He has a rash mainly on his trunk.
Streptococcal Pharyngitis and Scarlet Fever

- Strep pharyngitis is an infection caused by Group A Strep bacteria / scarlet fever is a rash caused by that same infection.

- There are distinctive red spots in the throat and the rash consists of small red spots and has a rough sandpaper texture to it.

- Contagious

- Exclude until treatment

- Readmit once fever free and 24 hours of antibiotics.
Case#8

- 12 year old female presents with an intensely itchy rash on her wrists and in her armpits and in her groin.

- It has been keeping her up at night.

- A few weeks ago she went camping with several cousins and shared sleeping bags.
Scabies

- A skin infestation caused by a mite

- Rash and severe itching (increased at night.) Itchy red bumps and blisters in skin folds, between the fingers, toes, wrists, armpits, genital areas, abdomen and lower buttocks

- Contagious

- Spread by prolonged and close person to person contact

- Exclude from school

- Readmit once treatment completed
Figure Legend:

Courtesy of James Brien, DO
Case#9

- 10 year old male with rash on face for a few weeks.
- The rash does not bother him.
Molluscum Contagiosum

- Type of wart caused by a virus
- Round shiny pink or flesh colored papules with a discharge in the center
- Contagious
- Spread by skin to skin contact
- No need to exclude from school
- Return to play if can be kept covered or once treated
Case #10

- 12 year old comes in with a tender spot on her leg.
- She thought it was a mosquito bite a few days ago but it has not gotten better
MRSA

- A deep skin infection caused by methicillin resistant Staph Aureus
- Tender, pus filled lesion that may or may not drain
- Contagious

- Infection usually starts with a compromise in skin integrity such as a scrape or cut. The bacteria enters the wound and takes hold.
- Can be spread by coming in contact with drainage
- No need to exclude unless lesion is draining and can not be covered.

- Return to play guidelines: No new skin lesions for at least 48 hours (2 days). Completion of 72-hour (3 day) course of directed antibiotic therapy. No further drainage from the wound.
Case # 11

- An adolescent comes in complaining that her ear hurts.
- You check inside her ear and it looks normal.
- She gets a text message from her bestie reminding her to tell you has a rash on the back of her neck.
THE MOMENT WHEN
YOUR CHILD HANDS YOU A LICE INFO FLIER
Head Lice

- A scalp infestation by an insect
- Small red papules and excoriation anywhere along hairline
- Predisposing factors include frequenting areas such as day cares and schools
- Contagious
  - Spread from person to person by direct head to head contact. Sharing of personal headgear without washing in between use may transfer a louse
Head Lice Control

- Exclude from school at the end of the day
- Readmit after treatment completed
- Return to play after treatment completed
TURNING TO MEDICAL NEWS: HEADLICE ARE NOW RESISTANT TO THE USUAL CHEMICAL TREATMENTS

THE PROBLEM HAS SCIENTISTS SCRATCHING THEIR HEADS
Case #12

- 17 year old comes in complaining of an intensely itchy rash
- He usually wakes up with new lesions
- He has noticed some blood spots on his sheets
THAT MOMENT I FIND OUT THE PATIENT HAS BED BUGS
Bed Bugs

- Small insects that feed on human blood by biting through the skin.

- Itchy insect bites, which often occur in a row, on areas of skin that are exposed during the night. Bites often have a red dot where the bite occurred in the middle of a raised red bump. Bites typically occur on face, neck, arms, and hands. Look for specks of blood, rusty spots from crushed bugs, or dung spots the size of a pen point on bedsheets and mattresses or behind loose wallpaper.

- Look for reddish/brown live bugs, about 1/8 of an inch, in crevices or seams of bedding.
Bed Bug Control

- Bedbugs are not spread on people. They do need to feed on people and may hide in clothing or belongings that could allow them to spread to others in a group setting.

- No need to exclude from school. Limit items that travel back and forth from school. Routinely separate the backpack and coat of one child from those of another child.
An 8 year old comes in with a rash on her cheeks.

Last week she missed school with fever, headache and a sore throat.
Fifth disease control

- No longer contagious once rash appears
- Individuals can be infected and contagious without any signs or symptoms
- Encourage good hand washing, covering the cough or sneeze and proper disposal of nose tissues