Urgent Care Dermatology: Distinguishing the Benign from Dangerous

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Objectives

• Discuss a categorization of rashes for clear communication between providers
• Discuss an algorithmic approach to rashes, focusing on life-threatening causes
• Differentiate between the patient requiring inpatient versus outpatient treatment
• Consider a list of differential diagnoses for most commonly seen rashes
• Discuss treatment based on probable diagnosis(es)
General Approach
General Approach To A Patient

1. Chief Complaint and vitals
2. History
3. Exam
4. Differential
5. Diagnostics
6. Assessment
7. Plan
General Approach To A Patient With A Rash

1. **Chief Complaint and vitals**
2. **Initial skin exam**
3. **History**
4. **Detailed exam**
5. **Differential**
6. **Diagnostics**
7. **Assessment**
8. **Plan**
Derm-Speak
Characterizing the Exam Findings
Circumscribed area of change without elevation
Solid raised lesion < 1 cm
Papule
Solid raised lesion > 1 cm
Circumscribed area containing pus
Pustule
Circumscribed, flat and elevated lesion > 1 cm
Circumscribed fluid-filled area < 1 cm
Blister or vesicle
Circumscribed fluid-filled area > 1 cm
Bulla
Small red/brown macule < 0.5 cm that doesn’t blanche
Petechiae
Red/purple macule > 0.5 cm that doesn’t blanche
Diffuse Redness
Erythroderma
Shape and Arrangement

Arrangement
• Clusters or discrete
• Linear or not

Shape
• Round
• Oval
• Annular (ring)
• Geometric
Location

• Generalized vs. localized
• Involvement of palms and soles
• Involvement of mucous membranes
• Involvement of face or not
• Extensor surface of the arms and legs
Additional or Associated findings

• Blanching or not
• Nikolsky sign
• Asboe-Hansen sign
• Palpability of the rash
• Fever or toxicity
An Algorithmic Approach for Generalized Rashes

Erythematous Rash

Focus on:
- Nikolsky sign
- Fever or not


- **Nikolsky sign**
  - Yes
    - Febrile: Staphylococcal SSS (children) TEN (adults)
    - Afebrile: TEN
  - No
    - Febrile: TSS (mucous membranes) Kawasaki disease (children; swollen hands) Scarlet fever ("sandpaper rash")
    - Afebrile: Anaphylaxis, Scombroid poisoning, Alcohol flush

SSS = scalded skin syndrome; TEN = toxic epidermal necrolysis; TSS = toxic shock syndrome.
Fever and positive Nikolsky Sign
What do you think this is?

Fever and positive Nikolsky Sign
Staph Scalded Skin Syndrome

- Pediatric (< 5 years)
- **Fever**, erythema of neck, axillae, groin, and extreme skin tenderness
- No mucous membrane involvement
- Nikolsky sign
- Treat staph
- Also in adults (high mortality)
No fever and positive Nikolsky sign
What do you think this is?  

Test  

Bee hive
Toxic Epidermal Necrosis

- Face and then down
- Nikolsky sign
- Massive skin sloughing
- Drug induced (sulfa, anticonvulsants, NSAIDS)
- Severe morbidity/high mortality
- IVIG and “burn care”
  - Don’t use Silvadene.
Fever and no Nikolsky sign
What do you think this is?
Toxic Shock Syndrome

- Toxic patients
- Desquamation of hands and feet
- No Nikolsky sign
- Any staph or strep infection can cause this
- Antibiotics, IVIG, and “burn care”
Don’t forget Kawasaki Disease

- Fever for 5 days, diffuse erythroderma, strawberry tongue, cervical lymphadenopathy, conjunctival injection, peeling of the fingers and toes, edema of the extremities
- Vasculitis
- Aneurysms and MI
- Sent to the ED: Treat with aspirin, IVIG
Send to the ED

Positive Nikolsky sign
Fever and peeling
Maculopapular Rashes

Most commonly seen generalized rashes in urgent care.
Focus on:
- Presence of fever
- Central or peripheral
- How it spread
- Age
- Presence of target lesions
Central and no fever
What do you think this is?
Pityriasis Rosea

- Herald patch
- Pruritic rash and mild prodrome
- No isolation needed
- Treat with topical or oral steroids and antihistamines
Central and no fever
What do you think this is?
Drug Eruption

- Usually starts within 1 to 4 weeks of starting a medication
- Eosinophilia
- Withdraw the drug
- Antihistamines for therapy (steroids not necessary)
Central and fever
Viral Exanthem

- Pediatric patient
- We start looking for specific patterns in the rash

Viral Exanthem
Rash on cheeks followed by a lacey rash on body
Go to www.menti.com and use the code 29 59 66

Rash on cheeks followed by a lacy rash on body
Erythema Infectiosum (Fifth Disease)

- Fever, coryza, nausea, and diarrhea
- Rash starts two to five days later
- Not infectious by the time rash erupts
Rash started on the neck and trunk and then spread to face and extremities.

High fever few days prior.
Rash started on the neck and trunk and then spread to face and extremities.

High fever few days prior.
Roseola Infantum (Sixth Disease)

• 90% of cases younger than 2 years old
• Benign and self limited.
Brick red rash. Began by the hairline and neck and spread distally. Conjunctivitis.
What do you think this is?
Measles (Rubeola)

- Presentation
  - Prodrome of 2-4 days of fever followed by conjunctivitis, coryza, cough, and Koplik spots
  - Rash: blanches early only
  - Fever resolves in 4 days of the rash
  - Rash resolves in 5 days after onset

- Incubation of 6 to 21 days
  - Period of contagiousness estimated to be from five days before the appearance of rash to four days afterward.

- Treatment
  - Vitamin A therapy for children

- Prevent transmission
  - Droplet precautions and isolation (airborne for 2 hours)
  - Exclude from work for 3 weeks
Round pink macules start on the forehead, neck and face and then spread distally even to the palms and soles.
What do you think this is?

Round pink macules start on the forehead, neck and face and then spread distally even to the palms and soles.
Rubella

- Presentation
  - Lymphadenopathy
  - Rash disappears in 3 days
  - Rash spreads to palms and soles

- Incubation of 4 to 18 days and virus is shed for 2 weeks prior to rash

- Droplet precautions
- Exclude from school or child care for 7 days after onset of rash
Target shaped rash on trunk
What do you think this is?

Target shaped rash on trunk
Erythema Migrans

- Target rash: At the site of tick bite and elsewhere within few days to a month after the tick bite.
- Don’t test, just treat.
- Treatment doxycycline 100 mg BID for 21 days or amoxicillin or cefuroxime.
Target lesions with central papules
What do you think this is?

Target lesions
Central papule
Erythema Multiforme

- Associated with Herpes Simplex virus 90% of the time
- Distal to central spread
- Raised central papules/blisters
- Antihistamines, topical steroids
  - Antivirals don’t help
- ED for significant mucosal involvement
Target lesions with dusky central macule
Go to www.menti.com and use the code 29 59 66

Target Lesions
Dusky central macule
Stephen Johnson’s Syndrome

- Drugs: sulfa, anticonvulsants, antibiotics
- Fever and malaise
- Central to distal target lesions
- Central dusky macules or purpura
- Positive Nikolsky or Asboe-Hansen sign
- Mucosal involvement
- Send to the ED
Pruritic rash. Moves around.
What do you think this is?

Pruritic rash. Moves around.
Urticaria

• Affects 20% of the population
• Intensely pruritic, circumscribed, raised. Central pallor.
• Generally cannot identify a trigger
• Exclude angioedema and anaphylaxis
  • Face and lips, extremities, and/or genitals.
• Treatment
  • Mild symptoms of new-onset urticaria - non-sedating H1 antihistamine (second generation).
  • Add steroids if symptoms are persistent
Petechial Rash

Focus on:
- Presence of fever
- Toxicity
- Palpable/non-palpable

- Palpable purpura – vasculitis due to inflammation or infection
- Non-palpable purpura – thrombocytopenic conditions

Presence of fever
Toxicity
Palpable/non-palpable

Palpable purpura – vasculitis due to inflammation or infection
Non-palpable purpura – thrombocytopenic conditions

RMSF = Rocky Mountain spotted fever; DIC = disseminated intravascular coagulopathy; TTP = thrombotic thrombocytopenic purpura.
Non-palpable
What do you think this is?

Non-palpable, not ill appearing
Idiopathic Thrombocytopenic Purpura

• Not sick
• Low platelets, normal PT/PTT
• Can manage as outpatient with a hematologist
• Send to ED if the platelet count is less than 30K or active bleeding
Thrombotic Thrombocytopenic Purpura

- Diffuse, nonpalpable rash and **sick with AMS**
- **Fever**, thrombocytopenia, hemolytic anemia, neuro deficits, renal failure, elevated LDH
- Send to the ED!
Palpable and limited to the dependent areas
What do you think this is?

Palpable and limited to the dependent areas.
Henoch Schönlein Purpura

• Vasculitis: skin and kidneys
• Purpura, abdominal pain, and arthritis (hematuria only in 20%)
• Important to get renal function study when urinalysis is abnormal (refer to ED)
  • Possible steroids
Febrile and ill appearing, palpable
What do you think this is?

Febrile and ill appearing, palpable
Meningococcemia

- Palpable rash (purpura)
- Within 24 hours of toxicity
- Beginning on wrists and ankles
- Sent to the ED - Treat for RMSF and Meningococcemia
  - Gram stain from lesion more sensitive than LP
  - Ceftriaxone, Vancomycin, and Doxycycline (Chloramphenicol)
  - Dexamethasone
Febrile and ill appearing, palpable
What do you think this is?

Febrile and ill appearing, palpable
Rocky Mountain Spotted Fever

- Tick borne
- Palpable and blanching (early)
- Wrists and ankles: maculopapular to purpuric
- Toxic and very febrile
- Sent to the ED - treat with doxycycline
Send to the ED

Fever and petechiae or purpura
Focus on:

- Presence of fever
- Toxicity
- Diffuse or localized

**Vesiculobullous rash**

**Febrile**
- Diffuse distribution
  - Varicella
  - Smallpox
  - Disseminated gonococcal disease
  - Purpura fulminans
  - DIC

- Localized distribution
  - Necrotizing fasciitis
  - Hand-foot-and-mouth disease

**Afebrile**
- Diffuse distribution
  - Bullous pemphigoid
  - Pemphigus vulgaris

- Localized distribution
  - Contact dermatitis
  - Herpes zoster
  - Dyshidrotic eczema
  - Burns

DIC = disseminated intravascular coagulopathy.
No fever, tense blisters
Go to www.menti.com and use the code 29 59 66
• Autoimmune and acute
• Tense blisters
• Positive Nikolsky and Asboe-Hansen Signs
• Trigger: captopril
• Early outpatient dermatology follow-up
• Send to ED if significant mucosal or skin involvement

Bullous Pemphigoid
No fever, flacid blisters
No fever, flacid bullae
Bullous Pemphigus

- Autoimmune and chronic
- Flacid blisters
- Absence of Nikolsky sign
- Painful mucosal involvement
- Send to ED if mucosal pain is preventing PO intake
- Can start steroids
- Derm follow-up
No fever, sharp bandlike area
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No fever, in a discrete band
• Dermatomal blistering rash
• 75% report prodromal pain
• Treat with acyclovir, famciclovir, or valacyclovir if less than 72 hours after onset or new lesions are developing
• No role for glucocorticoids, gabapentin, or TCA
• Analgesia

Shingles
Fever
What do you think this is?

Fever
• Fever
• Pharyngitis
• Generalized pruritic vesicular rash in crops
  • Crusted in 6 days
• Treat with acyclovir (within 24 hours of rash)

Chicken Pox
Take a deep breath

Blistering rashes seem really bad, but can be managed out of the hospital
Thank you