Common Childhood Rashes From a Black Lives Matter Perspective

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Disclosures

The presenters have no conflicts of interest to disclose.

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Objectives

By the end of this workshop, participants will be able to:

- Understand **existing health disparities** in the diagnosis, treatment and long term management of common childhood rashes on darker skin tones
- **Identify 6 common childhood rashes** in darker skin tones as defined by the **Fitzpatrick Scale, Type IV-VI**
- Collaborate with peers to practice **using appropriate descriptors** when discussing childhood rashes on darker skin tones
- Examine the way in which **Family Medicine Physicians** can address health disparities through more i**nclusive visuals in medical didactics**
- Create a list of actionable steps and resources to improve diagnostic knowledge and treatment access for patients with darker skin tones

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Agenda

1. Existing health disparities
2. Review of common language used to describe skin rashes
3. Breakout groups
4. Large group teach-back
5. Diagnosis and treatment review
6. Resources
7. Audience questions

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"How Medical Education is Missing the Bull's-eye"

"Moving through the world as a black woman, I am accustomed to not being represented as "the norm." Everything from the hue of the Band-Aids that cover my wounds to the heroes in the movies I watch makes me acutely aware of my deviation from what is typical and expected: I am black and female, whereas the world represented around me is often white and male. For me and for many members of minority groups in the United States, the realization does not come as an epiphany but is instead an essential fact that we must come to understand to navigate the world in which we live."

- LaShyra Nolen

N Engl J Med 2020; 382:2489-2491
Image from lashyranolen.com

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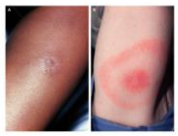
"How Medical Education is Missing the Bull's-eye"

"A hallmark of stage 1 Lyme disease is a bull's eye rash, erythema migrans, which typically appears 3 days after infection... Behind him was an image from the [CDC] of a prominent red bull's eye rash on white skin…"

"How do you recognize this rash in patients with darker skin?"

"Stage 1 Lyme disease is hard to see in patients who are not white, so therefore we don't depend on rash recognition for diagnosis"

"One study of patients with Lyme disease found that there was a higher proportion of diagnoses of arthritis (late stage Lyme disease) and lower proportion of diagnoses of erythema migrans among black patients than among white patients"



Erythema Migrans on Skin of Different Colors.

N Engl J Med 2020; 382:2489-2491

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Health Disparities In Dermatology

- Black race and eczema prevalence (15.9% black compared to 9.7% white children)
- Black Children are 3X more likely to be seen for eczema
- 52.4% of chief residents and 65.9% of program directors report that their residency had didactics with skin of color represented

J Invest Dermatol. 2011; 131:67-73, Arch Dermatol. 2002;138:634-637, J Am Acad Dermatol. 2008;59:615-618

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Health Disparities in Dermatology Education

Table I. Images of different skin phototypes in dermatology textbooks

Textbook	Dark	Light	Indeterminate	Total	Dark skin images
Bolognia	254	1011	61	1326	19%
Freedberg	240	1339	67	1646	15%
Rook	178	1255	79	1522	12%
Fitzpatrick 5th	97	721	39	857	11%
Fitzpatrick 4th	73	602	26	701	10%
Sauer's	57	550	8	615	9%
Habif	36	944	32	1012	4%

Dark, Skin phototype V-VI; *light*, skin phototype I-IV.

Am Acad Derm 2006; 55: 687-690

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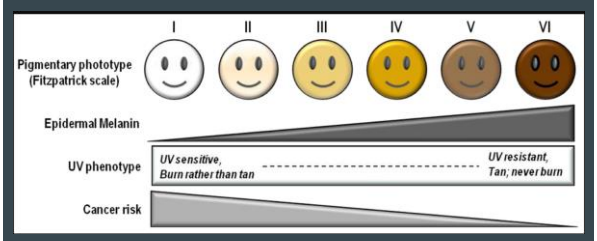
Fitzpatrick Skin Scale



International Journal of Molecular Sciences. 2013; 14: 12222-48.

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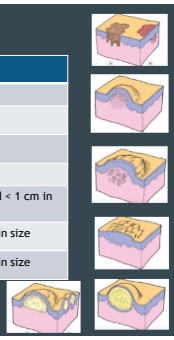
How to Describe Primary Skin Findings

Arise de novo	
Macule	Circumscribed, flat lesions < 1 (0.5) cm in size
Papule	Circumscribed, solid elevation < 1 (0.5) cm in size
Nodule	Circumscribed, solid elevation, > 1 (0.5) cm in size
Plaque	Palpable plateau like elevation, > 1 cm in size
Pustule	Circumscribed, solid elevation, filled with purulent fluid < 1 cm in size
Vesicle	Circumscribed, solid elevation, fluid filled < 1 (0.5) cm in size
Bulla	Circumscribed, solid elevation, fluid filled > 1 (0.5 cm) in size



David J. Gawkrodger DSc MD FRCP FRCPE Michael R. Ardern-Jones BSc MB BS DPhil FRCP,

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How to Describe Secondary Skin Findings

Modification of primary lesion	
Atrophy	Loss of epidermis, dermis, or both, thin, translucent, wrinkled, easily visible blood vessels
Crust	Dried exudate (blood, serum, pus) on skin surface
Erosion	Break in epidermis with extension into dermis, heals without scarring
Scale	Thickened, keratin layered skin, easily detachable fragmented
Scar	Permanent fibrotic skin change due to tissue injury
Ulcer	Circumscribed area of skin loss extending into the dermis, impairment in vascular supply
Fissure	Split in epidermis, just barely extending into the dermis

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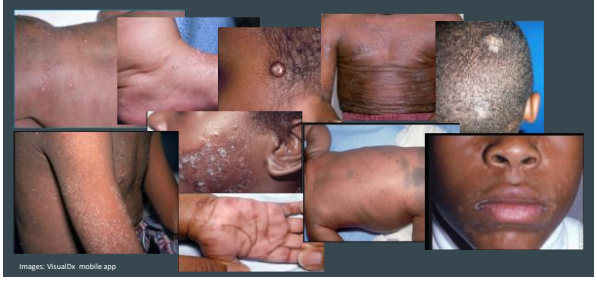
Breakout Groups



Images: VisualDx mobile app

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Large Group Discussion

- Describe each rash using previously reviewed vocabulary
- Identify top 2-3 differential diagnoses

Image: https://openclipart.org/detail/270507/diverse-student-group-work

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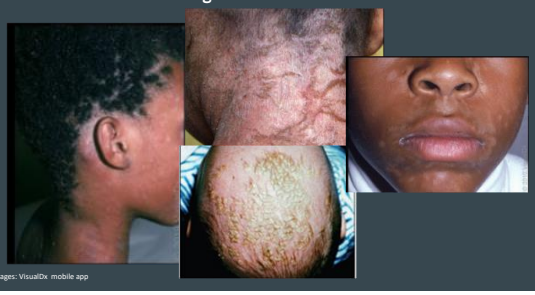
Seborrheic Dermatitis Images



Images: VisualDx mobile app

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Seborrheic Dermatitis Fun Facts

- Abnormalities in sebum production, presence of *Malassezia furfur*
- Skin Findings: loose, greasy scale, macules/plaques, hypo/hyperpigmentation in darker skin tones rather than erythema
- scalp, nasolabial folds, eyebrows, ears, neck and intertriginous areas
- Diagnosis: clinical
- atopic dermatitis, psoriasis, tinea capitis
- Treatment: emollients, mild non medicated shampoo, low potency steroid, ketoconazole 2% cream or shampoo

Benign and Self Limiting Condition!

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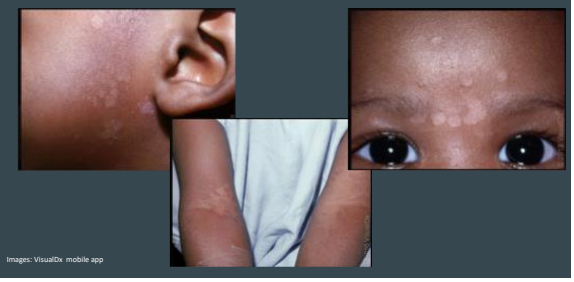
Tinea Versicolor Images



Images: VisualDx mobile app

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Tinea (pityriasis) Versicolor Fun Facts

- filamentous stage of dimorphic yeast of *Malassezia* genus
- Skin Findings: hyper/hypopigmented (latter more common in darker skin tones) macules, papules, patches, and plaques with scale
- upper face, chest, back, and upper arms
- Diagnosis: clinical diagnosis, scrape test with KOH will show hyphae and spores
- seborrheic dermatitis, pityriasis rosea/alba, vitiligo
- Treatment: Topical antifungals, oral antifungals if widespread

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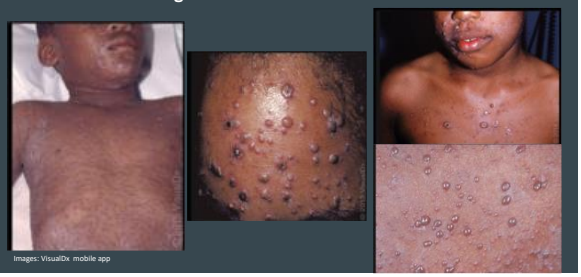
Varicella Zoster Images



Images: VisualDx mobile app

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Varicella Zoster Virus (chickenpox) Fun Facts

- varicella zoster virus
  - spreads via respiratory droplets and skin vesicles
  - may present with fever and malaise
- Skin Findings: vesiculopustular eruption, red/purple macules→ central papules→ vesicles/pustules/crust
- Everywhere!
- Diagnosis: usually clinical, can also culture lesion or obtain serologies
- Differential: eczema herpeticum, dermatitis herpetiformis, measles, coxsackie virus
- Treatment: anti-histamines, calamine lotion, Tylenol, acyclovir if severe infection/immunocompromised

Prevention: Vaccination, vaccination, vaccination!

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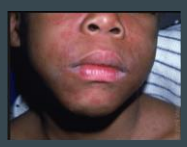
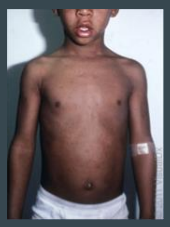
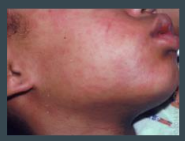
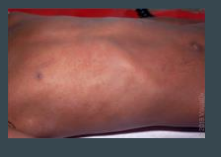
Measles Images

Images: VisualDx mobile app

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Measles Fun Facts

- single stranded mRNA virus in *Paramyxoviridae* family
  - spreads via respiratory droplets
  - presents with fever, congestion, cough, conjunctivitis
- Skin Findings: violaceous macules/papules
- forehead, behind ears with cephalocaudal spread 14 days post exposure
- Diagnosis: usually clinical, can obtain serologies or throat/nose swab
- Differential: rubella, kawasaki, scarlet fever, coxsackie virus, varicella
- Treatment: supportive
  - to mitigate illness: vaccination (up to 72 hrs post exposure) or IgG (up to 6 days post exposure)
  - Vitamin A for kids younger than 2 to prevent severe infection in children at risk

Prevention: MMR Vaccination, vaccination, vaccination!

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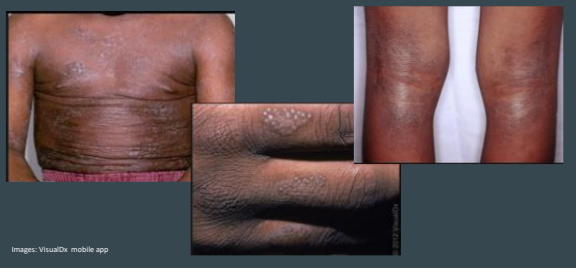
Atopic Dermatitis Images



Images: VisualDx mobile app

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Atopic Dermatitis Fun Facts

- immune system activation with genetic and environmental component
- Skin Findings:
  - Acute: erythematous (subtle in darker skin tones), vesicular/bullae, weeping, crusting
  - Subacute: scale, plaques, papules, erosions, crusts
  - Chronic: lichenification, scaling, hyper and hypopigmentation
- face (often cheeks), extensor surfaces of knees and elbows
- Diagnosis: chronic/relapsing history, pruritus, facial involvement, typical morphology and age specific pattern per above
  - Supportive: atopy, early age of onset, xerosis
- Differential: psoriasis, contact dermatitis, seborrheic dermatitis, scabies
- Treatment: emollients, gentle cleansers, topical corticosteroids for flares, topical calcineurin inhibitors in recalcitrant disease

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Scabies Images

Images: VisualDx mobile app

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Scabies Fun Facts

- *Sarcoptes Scabiei* mites burrow within the epidermis
  - spreads via skin to skin contact and rarely infected bedding, clothing, fomites
- Skin Findings: local to generalized pruritic, red-brown scaly papules/nodules/plaques in burrow formation
- web spaces of hands, flexor aspect of wrist, ankles, axillae, umbilicus, buttocks
- Diagnosis: clinical or skin scraping
- Differential: dermatitis herpetiformis, bullous pemphigoid
- Treatment: permethrin and antihistamine for pruritus

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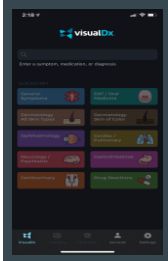
Resources

What resources do you use?



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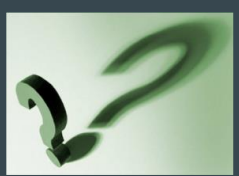
Thoughts/Questions



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