An Approach to Common and not so Common Rashes in the Office – FMF 2014
Christie Freeman MD, CCFP, DipPDerm, MSc

Common Rashes

*Tinea Corporis:*
- Annular - this is not the only criteria
- Advancing erythematous edge
- Often scaling
- Pruritic, but not usually as intensely as dermatitis
- Diagnose with skin scraping for KOH

*Atopic Dermatitis:*
- Dry skin with erythematous patches
- Very itchy, may be excoriated
- Flexures are common sites. Often symmetrical
- Personal or family history of atopy
- Often colonized with staph
- Swab to r/o MRSA, but treat for infection based on clinical appearance

*Nummular Dermatitis:*
- AKA discoid eczema
- Seen in adults. Well-defined, erythematous, scaly patches/plaques often on limbs
- Very pruritic; often mistaken for fungal infection
- Surface is dry or *crusted*
• Solitary or multiple lesions Often resolve leaving PIH
• Scraping and or biopsy will help distinguish from tinea

**Psoriasis:**
• Well-defined annular plaques
• May appear in any age group
• Thick or thin, *silvery* scale
• Knees, elbows, sacrum, scalp most commonly affected sites
• Biopsy will diagnose if uncertain

**Guttate psoriasis:**
• Pinpoint to 1cm scaling papules and plaques
• History of strep throat 1-2 weeks prior to onset
• More common in children and young adults
• Responds well to nUVB and topical steroids

**Medication reaction:**
• Mostly maculopapular
• Usually appear within 1-4 weeks of initiating a new medication
• Common causes:
  • beta-lactam antibiotics, sulfonamides, NSAIDs, hypoglycemics, thiazide diuretics, allopurinol, anticonvulsants
**Contact Dermatitis:**
- Acute itchy rash occurs after contact with a substance to which the patient has been previously sensitized
- Common causes: nickel, preservatives, fragrance mix, neosporin, MCI (wet wipes)
- Can occur immediately or up to 4 days after
- Patch testing to aid in diagnosis

**Keratosis Pilaris:**
- Tiny follicular papules, pustules on upper arms, cheeks, thighs
- Mostly in children and young adults
- Sometimes inflamed because the patient is picking/squeezing or from friction

**Seborrheic Dermatitis:**
- Pink skin, greasy scale medial eyebrows, nasolabial folds, ears, scalp, beard, central chest
- Often not itchy

**Folliculitis:**
- Pink papules and pustules with hair follicle at centre of lesion
- Common areas are beard, scalp, buttocks, thighs
- May be bacterial, fungal, or mechanical
- Swab and/or biopsy aids in diagnosis
Less Common Rashes

**Lichen Planus:**
- Pruritic, planar, *purple*, polygonal papules & plaques (6 Ps)
- wrists, ankles, lumbar spine- can be everywhere
- Buccal mucosa may show Wickham’s striae. Also visible on surface of lesion under dermatoscope
- Can be drug-induced, association with Hep C

**Lupus:**
- Erythematous papules/ plaques
- Often annular
- Mainly on trunk and sun-exposed face and arms
- May be drug induced
- Biopsy for H&E and immunofluorescence
- Lab work and urinalysis to r/o SLE

**Bullous Pemphigoid:**
- May present with intact bullae, erosions, or urticarial patches/plaques
- Very pruritic
- Patients are usually over 60
- Skin biopsy of an intact lesion and biopsy for immunofluorescence of normal perilesional skin is diagnostic

**Mycosis Fungoides (CTCL):**
- May start with macular erythematous patches and progress to more indurated plaques
• May present with erythroderma
• Patients usually over 50
• Often mistaken for dermatitis
• Biopsy is diagnostic, but difficult and multiple and repeated biopsies are sometimes necessary

**Dermatitis Herpetiformis:**
• Very pruritic papules and vesicles with a red base. Most often on scalp, shoulders, buttocks, elbows and knees
• Often seen with crusts and excoriations and may be confused for dermatitis or scabies
• Caused by gluten intolerance
• Patients may or may not have GI symptoms
• Biopsy for H&E and immunofluorescence for dx

**Secondary Syphilis:**
• Appears 3 weeks to 3 mos after the painless chancre (pt may not have been aware had this)
• Red/brown papules/patches. Often on palms and soles.
• Erosions in mucous membranes
• May have fatigue, joint pain, lymphadenopathy
• Check VDRL

**Meningococcemia:**
• Petechiae/purpura (don’t blanch)
• Most often on trunk and extremities
• Associated with fever, headache, neck stiffness, low back pain, nausea and vomiting, seizures, confusion
**History:**
- Try to get a brief history and then look at the rash. This will allow you to focus the history appropriately.
- If no obvious cause then ask about drug exposures, new contact exposures (insects, plants, chemicals), travel, chronic illness, personal or family history of atopy and/or skin diseases.

**Physical Exam: Patient age**
- Bullae in a child are more likely to be infectious (bullous impetigo, bullous tinea) whereas in the elderly are more often going to be autoimmune.
- Full body macpap eruptions in children more are likely to be infections (ie viral exanthems, scarlet fever, meningococcemia) or guttate psoriasis whereas adults are more often drug reactions.
- Certain diseases are very rare in children such as lichen planus, dermatitis herpetiformis, nummular dermatitis, mycosis fungoides.
Physical Exam: Symptoms

Pruritis:
• *Common:* atopic dermatitis, contact dermatitis, insect bites, lichen planus, nummular dermatitis, scabies, urticaria, varicella

• *Variable:* drug eruption, erythema multiforme, folliculitis, guttate psoriasis, kawasaki disease, pityriasis rosea, plaque psoriasis, tinea corporis, viral exanthema

• *Absent or Rare:* Fifth disease, keratosis pilaris, lyme disease, meningococcemia, roseola, scarlet fever, seb derm, secondary syphillis

Distribution:
• Flexure surfaces: atopic dermatitis, tinea

• Extensor surfaces: psoriasis, dermatitis herpetiformis, nummular dermatitis, keratosis pilaris

• Scalp: folliculitis, psoriasis, seb derm, dermatitis herpetiformis, tinea capitis

• Mucous Membranes: lichen planus, pemphigus, erythema multiforme/SJS
• Palms and soles: psoriasis, erythema multiforme, scabies, secondary syphilis, lichen planus

*Some rashes have a very characteristic distribution:*

- Pityriasis rosea: herald patch with collarette of scale then smaller lesions in xmas tree pattern

- Seborrheic dermatitis: greasy scale in medial eyebrows, nasolabial folds, scalp, upper central chest

- Plaque psoriasis: scalp, elbows, knees, sacrum

- Scabies: web spaces of fingers, wrists, elbows, knees, groin, belt-line, axillae, feet

- Lichen planus: inner aspect of wrists, ankles, lower legs, oral mucosa, genitals

- Keratosis pilaris: backs of the arms, lat cheeks, thighs
Morphology:

Colour: most are pink/red however...
- violaceous: lichen planus
- red/brown: secondary syphilis, pityriasis lichenoides
- red and non-blanching: meningococcemia, vasculitis

Scale:
- fine, silver: psoriasis
- greasy, adherent: seb derm
- at the periphery: tinea, pityriasis rosea

Investigations:

- **Annular, dry, scaly** – do a skin scraping
  - KOH takes a few days
  - will identify your yeasts
  - mycology takes 21 days
  - dermatophytes can be cultured
- **Angry red, pustular** – do a C&S swab
- **Blisters (vesicles or bullae)** – do a viral swab to show herpes simplex, varicella, zoster
- **Uncertain diagnosis** - Infiltrate .5-1cc 1% lidocaine with epi; 3mm **punch biopsy** (+/- suture) for H&E
- If you suspect the following, do an additional biopsy (place in Michael’s medium) for **immunofluorescence**

  - **Lesional skin**: lupus erythematosus, mixed connective tissue disease, vasculitis, porphyria cutanea tarda, lichen planus

  - **Peri-lesional skin**: pemphigus and pemphigoid groups, dermatitis herpetiformis