Dermatology for the Internist

Rosemary deShazo, MD
Assistant Professor, Dermatology
University of Utah
March 6th, Utah Chapter ACP
University of Utah Dept of Dermatology
Centers of Excellence

• Autoimmune/Bullous
• Contact Dermatitis and Eczema
• Inpatient Dermatology
• Skin Cancer Surgery
• Melanoma
• Same Day Dermatology
• Dermatopathology
• Pediatric Dermatology
• Cosmetics
February 10, 2020

Rosemary A deShazo, MD
University of Utah, Dermatology
30 North 1900 East, 4A330
Salt Lake City, UT 84132

Dear Dr. deShazo:

I am pleased to inform you that upon the recommendations of the Credentials Committee and approval of the Medical and Hospital Boards, your application for privileges at the University of Utah Hospitals and Clinics has been approved. Please note that any new privileges requested at the time of your reappointment will require proctoring per the Focused Professional Practice Evaluation policy.

Your reappointment/appointment is for the period: **2/3/2020 to 2/2/2022**
Category: **Active**  Status: **CURRENT**  Division: **DERMATOLOGY**  Department: **DERMATOLOGY**

Your current board certification is reflected below. It is a requirement of the Medical Staff Bylaws that practitioners maintain board certification in their specialty.  *(Article I.A.1 (J)(k)(l) [No expiration date indicates lifetime certification]):*

<table>
<thead>
<tr>
<th>Board</th>
<th>Board Status</th>
<th>MOC Reverification Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Board of Dermatology (Derm)</td>
<td>Certified</td>
<td>12/31/2026</td>
</tr>
<tr>
<td>American Board of Internal Medicine (Int Med)</td>
<td>Expired</td>
<td>12/31/2017</td>
</tr>
</tbody>
</table>

Please accept my congratulations. If I can be of any assistance to you, please do not hesitate to contact me.

**Information regarding disaster response:  Licensed Independent Practitioner (LIP) / Medical Pool – During a disaster, licensed independent practitioners (LIP includes MD’s, DO’s and credentialed midlevel practitioners) currently not involved in direct patient care duties or who may be out of the hospital should call the Disaster Hotline (Number being set up) or check the Emergency Management website at (http://intranet.uuhsc.utah.edu/emergency/) to determine if they are needed. The Disaster Hotline and the Emergency Management website will have LIP information and instructions.**

LIP’s who are on the Code Yellow paging group, the Campus Alert System or listed on the Medical Staff Office call list will receive notification via text page, cell phone, or voicemail. If these mechanisms are not functional, LIP’s should self report to the hospital LIP / Medical Pool for
Inpatient Dermatology Hospitalists

Julia Curtis

Lauren Madigan

Rosemary deShazo
When to consult or refer to dermatology?

• ANYTIME!
• pattern and detail recognition
• Takes practice
• >80% of inpt derm consults change diagnosis and management of patients
Consult Logistics

• Dermatology is on call 24/7.
• Resident assigned "UIP" monthly, including nights/excluding weekends.
• Julia/Lauren/Roma cover University and Huntsman on all weekdays year round. Eight U faculty members share daily consults at IMC.
• Weekends and nights are shared on a rotating basis with all department faculty.
APPROACH TO THE PATIENT WITH AN ACUTE FEVER AND A "RASH"

Approach to the patient with an acute fever and a "rash**

Infectious

- **Bacteria**
  - e.g. toxic shock syndromes; SSSS; scarlet fever; septic emboli (*Meningococcus, Rickettsia > other bacteria*); secondary syphilis; disseminated erythema migrans

- **Viruses**
  - e.g. exanthems due to enteroviruses, HHV-6, adenovirus (see Fig. 81.2), HIV; varicella, disseminated zoster**; Kaposi's varicelliform eruption

- **Fungi****
  - e.g. disseminated dimorphic infection

  - Protozoa**
    - e.g. Strongyloides

Inflammatory

- **Drug reactions**
  - Morbilliform, serum sickness-like reaction, DRESS, AGEP, erythroderma

  - Erythema multiforme, SJS/TEN

  - Primary cutaneous disorders (e.g. pustular psoriasis)

  - Rheumatologic disorders (e.g. SLE, vasculitis, Still's disease)

  - Graft versus host disease

Other

- Neoplastic (e.g. lymphoma)

- Inherited (e.g. periodic fever syndromes)

* not a single site as in cellulitis, necrotizing fasciitis
** more likely in immunocompromised patient
<table>
<thead>
<tr>
<th>Drug Reaction</th>
<th>Child: 10–20 Adult: 50–70</th>
<th>4–14 days</th>
<th>0</th>
<th>Aminopenicillins Sulfonamides Cephalosporins Anticonvulsants Allopurinol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exanthematous eruption</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drug reaction with eosinophilia and</td>
<td>70–90</td>
<td>15–40 days</td>
<td>5</td>
<td>Anticonvulsants (aromatic) Sulfonamides Allopurinol Lamotrigine (especially in combination with valproate) Minocycline</td>
</tr>
<tr>
<td>systemic symptoms (DRESS)/Drug-induced hypersensitivity syndrome (DIHS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stevens-Johnson syndrome (SJS)</td>
<td>70–90</td>
<td>7–21 days</td>
<td>5</td>
<td>Sulfonamides Anticonvulsants (aromatic) Allopurinol NSAIDs Lamotrigine</td>
</tr>
<tr>
<td>Toxic epidermal necrolysis</td>
<td></td>
<td></td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>
Case 2:

• 28 year old male with sudden onset of facial swelling, fever, lymphadenopathy, and diffuse cutaneous eruption

• Past medical history: seizure disorder. Started dilantin 4 weeks ago

• Labs notable for transaminitis and eosinophilia
What is your diagnosis?

- Viral exanthem
- Scarlet fever
- Morbilliform drug eruption
- DRESS
- Acute urticaria
Diagnosis

• Viral exanthem
• Scarlet fever
• Morbilliform drug eruption
• DRESS
• Acute urticaria
Drug Reaction with Eosinophilia and Systemic Symptoms (aka Drug –Induced Hypersensitivity Syndrome)
Morbilliform Eruption
DRESS Syndrome

• Most commonly noted with sulfa, anticonvulsants, and allopurinol; also abacavir

• Noted inability to detoxify sulfa and anticonvulsants; ?HHV-6 reactivation

• Classically starts 2-6 weeks after initiation of a drug
Symptoms of DRESS Syndrome

- Morbilliform rash ("maculopapular")
- Acral and facial edema
- Lymphadenopathy, primarily cervical
- Eosinophilia; sometimes atypical lymphocytosis
<table>
<thead>
<tr>
<th>Criteria</th>
<th>No</th>
<th>Yes</th>
<th>Unknown/unclassifiable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fever (≥ 38.5°C)</strong></td>
<td>−1</td>
<td>0</td>
<td>−1</td>
</tr>
<tr>
<td><strong>Lymphadenopathy (≥ 2 sites; &gt; 1 cm)</strong></td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Circulating atypical lymphocytes</strong></td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Peripheral hypereosinophilia</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>0.7–1.499 × 10⁹/l - or - 10–19.9%</strong>*</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>≥ 1.5 × 10⁹/l - or - ≥ 20%</strong>*</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Skin involvement</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Extent of cutaneous eruption &gt; 50% BSA</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>– Cutaneous eruption suggestive of DRESS**</td>
<td>−1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>– Biopsy suggests DRESS</td>
<td>−1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Internal organs involved†</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>One</strong></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Two or more</strong></td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Resolution in ≥ 15 days</strong></td>
<td>−1</td>
<td>0</td>
<td>−1</td>
</tr>
</tbody>
</table>
| Laboratory results negative for at least three of the following (and none positive):  
(1) ANA; (2) blood cultures; (3) HAV/HBV/HCV serology; and (4) *Chlamydia* and *Mycoplasma* serology | 0   | 1   | 0                      |
| **Final score**: < 2, no case; 2–3, possible case; 4–5, probable case; >5, definite case |     |     |                        |
DRESS Syndrome: Systemic Symptoms

• Fever in 80%

• Systemic “symptoms”:
  • Most often LFT abnormalities
  • Thyroiditis, interstitial pneumonitis, interstitial nephritis, myocarditis
DRESS Management

• Corticosteroids: often 1 mg/kg/day with slow taper; topical steroids

• Corticosteroids are beneficial for the rash, cardiac, and pulmonary manifestations

• Corticosteroids do not appear to alter the course of liver or kidney involvement

• Follow TSH chronically on discharge
Case 3: 80yo female w/ sudden onset of initially urticarial plaques followed by tiny pustules. Recently started on diltiazem for hypertension.
What is your diagnosis?

- Bacterial folliculitis
- Disseminated varicella
- Eczema herpeticum
- Acute generalized exanthematous pustulosis
- Viral exanthem
Diagnosis

- Bacterial folliculitis
- Disseminated varicella
- Eczema herpeticum
- Acute generalized exanthematous pustulosis
- Viral exanthem
Acute Generalized Exanthematous Pustulosis (AGEP)

Fig. 21.6B Acute generalized exanthematous pustulosis (AGEP). A A positive patch test result 4 days following the application of 0.75% metronidazole in a patient with a previous pustular drug eruption to that medication. Diff use erythema of the buttock (due to cephalosporin, B) and face (due to metronidazole, C)
Overview

• Fever

• Rash: Usually <4 days after starting new med

• Often leukocytosis, increased PMNs, mild eosinophilia

• Most common medications: Antibiotics #1 (beta lactams and macrolides), calcium channel blockers #2, antimalarials

• Subset of hypersensitivity drug eruptions
AGEP

- Often starts on face or axillae/groin

- Diffuse erythema with overlying tiny diffuse sterile non-follicular pustules

- Can note EM-like lesions, vesicles/bullae, mucosal lesions

- Often pruritus or burning noted; Lesions last 1-2 weeks, then desquamation
AGEP Treatment

• Stop offending medication

• Topical steroids, skin care to prevent secondary infection

• NSAIDs, acetaminophen
Infectious pearls

- HSV is often overlooked (and widespread) in inpatients
- Increased risk in CISD, female sex, chronic steroid use
Thank you!

• Please reach out with any concerns/complaints/feedback:
  • Rosemary.deshazo@hsc.utah.edu

• Same Day Dermatology Scheduling: 801-581-2955

• References and credits:
  • Bolognia
  • My partners in inpatient dermatology
  • My patients
References


• Inpatient Consultative Dermatology, [Lauren K. Biesbroeck MD](#) and [Michi M. Shinohara MD](#); Medical Clinics of North America, 2015-11-01, Volume 99, Issue 6, Pages 1349-1364

• Chovatiya R and Silverberg J. Association of herpes zoster and chronic inflammatory skin disease in United States inpatients. JAAD. Jan 17 pii: S0190-9622(20)30065-7 (epub ahead of print)

• Madigan L and Fox L. Where are we now with inpatient consultative dermatology?: Assessing the value and evolution of this subspecialty over the past decade. JAAD 2019 Jan, Vol 80, No 6. 1804-8.