



Lindy P. Fox, MD, FAAD, is a professor of clinical dermatology and director of the Complex Medical Dermatology Fellowship Directory, inpatient dermatology, in the department of dermatology at UCSF in San Francisco.

Clinical Pearls

Clinical Pearls help prepare residents for the future by providing them with top tips from experts about what they should know about specific, key subject areas by the time they complete their residency.

Inpatient dermatology

By Lindy P. Fox, MD, FAAD

Inpatient dermatology is an incredibly rewarding subspecialty that allows dermatologists to have tremendous impact in caring for some of our sickest patients, interface with multidisciplinary teams, and elevate the field of dermatology in the house of medicine.

When you are called to see a consult, remember that you are probably the only person in the hospital who knows how to evaluate the skin. You are being consulted because the primary team needs your expert opinion. It is an honor and a responsibility. With that in mind, here are a few pearls to take with you when doing inpatient consultations.

1. Don't buy what they're selling. An inpatient dermatology consultation results in a change in the consulting team's diagnosis up to 71% of the time¹. So, examine the entire patient including the hair, nails, oral and anogenital mucosa, and skin to find the pertinent positives and negatives.

2. Patients in the hospital are really sick², so keep your differential broad and include the diagnosis that will kill the patient if you miss it. This is very different from the approach to outpatient dermatologic problems. A great example is an immunosuppressed hospitalized patient status post bone marrow transplantation for acute myelogenous leukemia who presents with fever and purple nodules on the skin. The differential diagnosis includes Sweet syndrome, relapsed leukemia cutis, and a disseminated infection (fungal, bacterial, or mycobacterial). In such cases, it is often prudent to treat empirically for the possible infectious causes of the skin lesions while waiting for diagnostic studies to result.

3. The diagnosis of a drug eruption requires knowing three things: Rash type, timing, and statistics. While any drug can cause any type of rash morphology, this approach (I made it up) helps me think through drug eruptions and quickly eliminate the most common culprits.

- Type of rash — look for signs that help you classify the drug rash.
- Timing of rash relative to timing of drug exposure — make a detailed drug chart.
- Statistics — know which drugs are most likely to cause the type of rash you are evaluating.

Common examples include:

Acute generalized exanthematous pustulosis:

Confluent erythema studded with minute pustules occurring within 48-72 hours of medication onset; associated with neutrophilia; most common offenders are beta lactams and macrolides.

Drug hypersensitivity syndrome: Morbilliform eruption with facial edema with one or more of eosinophilia or atypical lymphocytosis/transaminitis/renal involvement occurring after 3-7 weeks of continuous medication exposure; most commonly to NSAIDs, anticonvulsants, allopurinol, antibiotics, or dapsone.

Linear IgA bullous dermatosis: Widespread tense bullae (some in rosettes) on an inflammatory base occurring within the first days to weeks of vancomycin exposure.

4. When an inpatient dermatologist gets called to see a case of cellulitis, the diagnosis is often a pseudocellulitis^{3,4}. This happens at least 30% of the time. Common missed diagnoses are stasis dermatitis, contact dermatitis, eczema, and lymphedema⁵. "Do not miss" diagnoses include pyomyositis, phlegmasia, necrotizing fasciitis, erythema migrans, pyoderma gangrenosum, and deep vein thrombosis. If it's bilateral, it is unlikely to be cellulitis.

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