Actas Dermo-Sifiliográficas xxx (xxxx) 104554

Contents lists available at ScienceDirect

Actas Dermo-Sifiliográficas

journal homepage: www.actasdermo.org

Opinion Article

Clinical Lessons in Dermatology: Insights into Diagnosis, Management, and Professional Practice

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The ideas presented in this article reflect lessons we have learned from our teachers, patients, and colleagues and our training and clinical experience. These thoughts emphasize concepts that have shaped our approach to dermatology from diagnostic thinking to therapeutic reasoning, to the value of communication, teamwork, and continuous education. They seek to add to our common conversation as doctors dedicated to evidence-based treatment.

Diagnostic pearls and strategies

Listening remains one of the most fundamental abilities in clinical dermatology and one of the easiest to ignore. "*Listen to your patient; he is telling you the diagnosis*," Sir William Osler noted almost a century ago.[1] This remains true today. In dermatology, where diagnosis often depends on context, the clinician's capacity for patient and attentive listening is crucial.

Dermatologic disorders often change in relation to environmental exposures, drugs, occupations, age, sex, comorbidities, hobbies, travel, pets, hereditary factors and living conditions. Correct diagnosis of several diseases depends on knowledge of these facilitating factors.[2] Their presence and impact usually emerge in conversation. Giving patients time to share their story often provides vital information needed to direct clinical decisions.

At times, a patient will relate a history that seems implausible. We listen carefully and confirm that we have understood them correctly. For every stimulus they describe, we ask whether the reported reaction truly follows. When it does, it is often instructive to attempt to reproduce the eruption in real time. One such case involved a young woman who reported developing vasculitis every time she consumed an alcoholic beverage – an association that proved to be correct.[3] If the reaction does not occur, the patient still knows that we have heard them, and we can then work together to explore alternative explanations.

Active listening is not a soft skill but an important diagnostic tool. In managing chronic diseases, it enhances doctor–patient rapport and encourages adherence.[4] Overall, it helps the clinician better grasp the patient's experience and likely causes of disease expression. Often, careful listening with sharp follow-up questions has already framed the differential diagnosis before examination begins.

Although in dermatology we are taught to pay great attention to the morphology of the eruption, the skin should always be considered within the whole person. Cutaneous findings often provide clues about internal conditions; lesions that seem localized could be signs of systemic disease.[5] Regardless of the chief complaint, every patient should be offered a thorough complete skin examination. This attention to detail helps recognize incidental but significant findings that would otherwise go unnoticed if analysis is limited to a single lesion.

This approach is especially crucial when caring for obese patients or those with mobility issues. For example, it can be challenging to completely examine perianal skin in a heavy person with hidradenitis suppurativa and groin scarring. Although up to 5% of affected patients may develop perianal squamous cell carcinoma,[6] difficulties with positioning, suboptimal lighting, unpleasant odors, and patient discomfort can impede examination. Delayed diagnosis has led more than one patient to die from metastatic disease.

Dermatologists are also generalists of a sort. We combine cutaneous findings with drug histories, comorbid diseases, and systemic symptoms. By doing this, we understand patients through their skin disease rather than being defined by it.

Physical findings are frequently more instructive in dermatology than histopathology or laboratory testing. Long before biopsy is considered, thorough visual and tactile examination evaluating color, distribution, scale, morphology, and arrangement can provide accurate diagnosis.[7] When a biopsy is required, it is often helpful to repeat the physical examination to ensure that a primary lesion is sampled or that multiple biopsies are obtained from lesions at different stages of evolution.

Even under ideal conditions, histology and clinical impressions can occasionally diverge. We agree with Professor Kligman's assertion that "live pathology trumps dead pathology".[8] If histology and clinical impressions do not match, revisit the patient. Physical examination remains our most immediate and direct diagnostic method (Table 1).

Blood tests and imaging modalities are typically unhelpful when differential diagnosis does not explicitly indicate their application. A red face in a middle-aged woman may prompt an anti-nuclear antibody test that complicates diagnosis and triggers unnecessary testing when rosacea requires no laboratory confirmation.[9] Which tests are necessary to monitor patients on isotretinoin, terbinafine, and biologics is being debated.[10,11] We agree that costly tests that do not alter our strategy should not be run.

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https://doi.org/10.1016/j.ad.2025.104554

Please cite this article as: J.R. Estela Cubells and W.D. James, Clinical Lessons in Dermatology: Insights into Diagnosis, Management, and Professional Practice, ACTAS Dermo-Sifiliográficas, https://doi.org/10.1016/j.ad.2025.104554

Table 1
Essential diagnostic strategies in clinical dermatology.

Strategy	Clinical application	Main benefit	Limitations
Active listening	Detailed clinical history	Identification of triggering factors	Requires additional time
Complete physical exam	Comprehensive skin assessment	Detection of incidental findings	May be limited by patient factors[a]
Use of all senses	Inspection, palpation, auscultation	Additional diagnostic information	Dependent on clinical experience
Patch testing	Suspected contact dermatitis	Identification of specific allergens	Underused, requires expertise
Clinicopathologic correlation	Histologic-clinical discordance	More accurate diagnosis	May require multiple biopsies

[a] Includes obesity, mobility limitations, patient discomfort or pain.

Although constantly evolving, dermatology remains shaped by its historical context. Conditions once rare or thought to be resolved may reappear in new forms or with greater frequency due to immunosuppression, migration, treatment patterns, or shifts in population health. Recognizing this fluid epidemiology helps prevent cognitive shortcuts and ensures that our differential diagnosis remains appropriately broad.

We should not assume rarity based solely on training years experience. Unless we become familiar with classic and modern characteristics, a disease reappearing in a new demographic or presentation may not be immediately recognized. Monkeypox in Spain,[12] Ebola in the United States,[13] and anthrax in New York City[14] all occurred. Maintaining accurate and responsible diagnostic practice requires staying current with the literature and remaining open to diseases that have not been seen recently.

Although most define dermatology as a visual specialty, practice involves more than inspection. Touch allows us to assess induration, softness, warmth, or texture. Listening to patient descriptions of symptoms, timing, or progression provides important background. Rarely, even smell can raise diagnostic suspicion. More importantly, using all senses promotes conscious attention, reminding us to slow down and remain present during examination, enhancing treatment quality and fostering patient rapport.

Sometimes elements of a clinical presentation contradict the expected diagnosis. Classic conditions can show atypical findings or varied presentations. Certain disorders do not respond to conventional therapies. Rather than dismissing contradictions, they should prompt reevaluation. Whether relating to distribution, symptom profile, or treatment response, atypical characteristics should trigger a broader differential. This approach prevents premature diagnostic closure and helps offset confirmation bias.

Therapeutic pearls and strategies

If diagnosis is the roadmap, treatment is the journey. The best therapeutic response comes from correct diagnosis. A lack of response may indicate that the patient never received the medication, is not using it because of inconvenience, forgetfulness, or adverse effects, or that the treatment simply is not effective. Always consider that wrong diagnosis is possible and should be reconsidered when trying another medication.

When we choose this or that therapy, we have to be honest and ask ourselves questions such as whether they are based on sound scientific principles or are simply practices that have been handed down for generations. Although clinical experience can be valuable, therapeutic decisions should be based on systematic evaluation of treatment results in properly designed studies instead of anecdotal evidence based on small series of patients.

Eliminating the cause is among the most important concepts in dermatologic treatment. When possible, whether an allergen, drug, mechanical stressor, or trigger, identifying and removing the cause will produce notable improvement or resolution without further pharmacologic intervention. Patients with chronic eczematous dermatoses should be asked whether they think an external allergen might be aggravating their inflammation. Often the difference between symptom control and disease resolution is determining underlying etiology.

Patch testing is a powerful but underutilized tool. Since it may reveal an otherwise undetectable cause of eruption, it remains the gold standard for identifying allergic contact dermatitis[15] and should have a low threshold for application in clinical practice. This supports a general dermatological principle: treating the cause is better than treating the symptom.

Early in training, there is a natural inclination to escalating rapidly to systemic treatment, particularly with widespread or severe skin disease. Experience, however, fosters respect for what can be achieved with optimal topical therapy. When combined with structured skin care education, the appropriate use of potent corticosteroids, calcineurin and JAK inhibitors, and occlusion techniques often provides disease control comparable to more aggressive approaches, but with more favorable safety profiles.[16]

The key is not only choosing the correct agent but understanding how it should be used: frequency, duration, vehicle, and technique all matter. Teaching patients proper drug application is part of the therapeutic act; often, this determines success more than the recommended product *per se*.

Simple, readily available treatments retain value in an era of increasingly complex options. Consistently using barrier-supportive agents, such as petrolatum-based ointments, remains fundamental.[17] These agents are cost-effective, well-tolerated, and flexible across many inflammatory, xerotic, and postoperative settings.

Simplicity enhances adherence to treatment plans. It is better to design a regimen a patient can follow than to overwhelm them with multiple steps and complex directions. Although intensive therapy is sometimes initially required, a typically positive response allows transition to simpler, more convenient maintenance schedules. Early communication of this expectation results in better participation during intensive periods.

No treatment can be completely successful if patients do not understand how and why to apply it. Essential components include clarifying the rationale for each prescription, addressing doubts, and setting reasonable expectations.[18] Clear educational initiatives, customized for patient knowledge level and lifestyle, should reinforce key points through written instructions, visual aids, or follow-up calls.

Asking patients to repeat back directions in their own words helps confirm understanding. Often treatment plan success depends on the extra moment taken to guarantee comprehension.

Dermatologic treatment often involves several options; the “best” treatment on paper might not be the best fit for a given patient. Inviting patients to share preferences and concerns helps customize recommendations to support comfort and long-term adherence. Aligning treatment with a patient’s preferences, priorities, and capacity may require compromising on formulation, timing, or intensity in favor of an approach that fits their daily life.

Patient communication and trust

Technical knowledge and clinical experience are essential in dermatology, but insufficient by themselves. How we communicate with patients has a direct impact on treatment outcomes and satisfaction.[19] Dermatology terminology can be confusing or intimidating. It is our

responsibility to translate these terms into accessible language to reduce anxiety.

Many skin conditions carry psychological burden. Whether acne, alopecia, or psoriasis, patients often feel ashamed, anxious, or stigmatized. Acknowledging this emotional impact can ease the patient experience. Simple expressions of empathy such as "I know this has been difficult for you" can open doors to more honest and effective therapeutic relationships.

When diagnostic certainty is not possible, rather than shielding patients from ambiguity, it is often more effective to explain where we are in the process and what steps remain. Sharing uncertainty with honesty and clarity reinforces trust, especially when paired with plans for next steps. Most patients prefer thoughtful explanation to rushed conclusion.

Some dermatologic conditions carry social stigma or personal guilt. Patients may believe their condition is contagious or indicative of deeper problems, such as cancer. Taking time to dispel these misconceptions is important, particularly when a specific diagnosis has not yet been established. Education not only corrects misunderstandings but reduces shame and restores agency.

Lifelong learning and practice improvement

Dermatology continues to evolve. New diseases emerge, familiar conditions are redefined, and novel therapies become available each year. For clinicians in active practice, this reality demands both curiosity and discipline. One of the most important professional habits we can cultivate is commitment to lifelong learning.[20]

Formal training completion marks the beginning of a different learning mode, driven by clinical questions, literature review, and regular engagement with new data. Staying current with clinical guidelines, attending professional conferences, reviewing peer-reviewed literature, and participating in continuing education activities are essential to maintaining clinical relevance and providing safe, effective care.

One of the pillars of lifelong learning is the ability to critically evaluate the medical literature, differentiating between strong, high-quality evidence and expert opinion based solely on personal experience. For our part, we must be prepared to refrain from adopting therapeutic strategies solely because influential bodies endorse them, and instead require robust evidence of clinical benefit from well-designed trials.

One meaningful aspect of continuing learning is the ability to question long-standing practices. Many treatment approaches or diagnostic assumptions once considered standard have been updated or replaced as better evidence becomes available. Moving forward along with the latest available evidence is part of professional integrity.

Dermatology rarely exists in isolation. Many conditions intersect with other specialties, from rheumatology and infectious disease to oncology and psychiatry. Meaningful collaboration across disciplines not only helps manage complex diseases but improves continuity and safety while expanding our clinical understanding.

Final thoughts

In clinical dermatology, persistence is often as important as pattern recognition. While many diagnoses are established efficiently through good history and physical examination, others remain unresolved despite appropriate steps. When faced with diagnostic uncertainty, the most effective approach is often returning to the beginning: revisit history, conduct complete skin examination, and review previous assumptions. The decision to continue working through complex cases expresses both clinical rigor and commitment to patients.

Patients expressing frustration, distrust, or excessive concern are sometimes labeled as "difficult." But this label can obscure more than it clarifies. What appears as irritability or resistance often results from prolonged suffering, repeated treatment failures, or previous encounters where patients felt misunderstood or dismissed. Rather than viewing these responses as personality flaws, it is more accurate and helpful to consider them as part of the patient's illness experience.[21]

Reflecting on clinical practice, one enduring theme is the value of professional unity. Dermatology is sustained by networks of shared knowledge, institutional memory, and collective commitment to patient care. Whether in academic departments, professional societies, or collaborative clinics, this sense of community elevates both individual practice and our specialty.

As dermatologists, we are part of a profession that values not only expertise but the responsibility to pass knowledge forward to colleagues, students, and patients who rely on us. That responsibility is also a source of meaning and belonging. These reflections acknowledge the many people – teachers, peers, and patients – who have shaped our clinical practice and continue to guide our shared purpose in providing thoughtful, evidence-based dermatologic care.

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