Essential Dermatology Toolbox

DISCERNING DERMATOLOGY

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Caring for the body's largest organ, despite its accessibility to sight and touch, is challenging. Here is an inventory of readily available dermatology tools to help nurse practitioners (NPs) who are primary care providers (PCPs) accurately assess, treat, and refer patients. Essential tools include 3 overlapping categories: instruments and equipment, informational resources, and skills training. Skills training in suturing, biopsying, and the administration of hands-on treatments must obviously be mastered before safely practicing any procedures; when competency is developed, they are well within NP scope of practice.

To adequately evaluate the structure of skin lesions, a small handheld device called a dermascope is needed. Under the dermascope features such as scabies burrows, arborizing vessels, spoke-wheel structures of basal cell carcinoma, normal patterns of benign nevi versus atypical pigmented pseudopods, vessels, chrysalis, veils within melanomas, and numerous others become apparent.

Dermoscopy is the standard of care for PCPs in other countries, like Australia, where entering an exam room without a dermascope is equivalent to being without a stethoscope or otoscope. There is no PCP more likely to examine patient's skin, yet NPs have historically been blindfolded to dermoscopy information. This tool, in the hands of knowledgeable NPs, can lower skin cancer morbidity and mortality, reduce unnecessary biopsies, and enhance the appropriateness of specialist referrals—all of which will reduce health care spending.

The International Dermoscopy Society (IDS, http://www.dermoscopy-ids.org) represents over 100 countries, provides free membership, and offers dermoscopic examination case presentations to educate practitioners. The IDS also features video podcasts by renowned experts on an assortment of skin diseases assessed via dermoscopy. Free dermoscopy training is also available at http://www.dermlite.com/cms/en/learn/for-professionals/video-course.html, http://dermoscopic.blogspot.com/, and http://dermnetnz.org/procedures/dermoscopy.html. Dermoscopy courses with continuing education are also available that are interactive, fascinating, and capable of expanding expertise.

Many affordable dermascopes are available from manufacturers, such as US-based 3GEN/Dermlite, with models that can toggle between polarized and nonpolarized settings; WelchAllyn's nonpolarized episcope head that attaches to the same handle as their otoscope; and Heine's models. Some dermascopes contain or attach to cameras, enabling images to be uploaded for monitoring, consultation, and documentation.

A digital camera from which pictures can be printed or downloaded to the electronic medical record is another essential tool. Imagine biopsying a pigmented lesion that turned out to be a 1.5 cm-thick melanoma on the back of a patient with numerous atypical moles. When the patient is referred to a melanoma clinic for wide excision with sentinel lymph node biopsy, the surgical team cannot determine the melanoma's location without photos. Any biopsying clinician must pinpoint and record the sampled site. Photos and accompanying measurements to anatomical landmarks are crucial for safe dermatology practice, regardless of practice setting.

Pressure applied to lesions with an inexpensive glass slide helps NPs determine blanch ability of vascular versus nonvascular growths. The edge of the glass slide can also be used to lightly scrape lesions when assessing more subtle scaling or flaking.

The Wood's lamp, commonly used by NPs to assess corneal injury, is also a dermatology tool. Dermatophytes and P. acnes are some examples of infections revealed by their distinctive colors under this ultraviolet illumination. Making the diagnosis of erythrasma—by detecting the characteristic coral fluorescence of coproporphyrin III deposited by Corynebacterium minutissimum that led to a rash—demonstrates how this noninvasive tool prevents misdiagnosis and ineffective treatments. Pigmentation disorders such as vitiligo and previously unseen edges of deeper melanin can also be detected under the lamp. This facilitates diagnosis and biopsy boundary determination for pigmented lesions. Porphyrias and other conditions are also detected under Wood's lamp in a dark room.

Cryotherapy with liquid nitrogen or electrodesiccation and curettage (ED&C) with curette and hyfrecator are tools that should be used with far more caution than demonstrated in some offices. Although these tools are very effective in treating a multitude of skin conditions, users must know exactly what is being treated to determine the appropriateness of destructive therapies. Imagine that what was misdiagnosed as a 1.8-cm plaque of seborrheic keratosis on the temple was actually a squamous cell carcinoma. Freezing or ED&C of that lesion is not curative and allows the cancer to further develop and metastasize unobserved beneath the now scarred surface. Healthy tissue can also be damaged by incorrect cryotherapy and ED&C techniques, so thorough training is essential.

Before entering exam rooms, NPs need to know the factors that put patients at risk for serious medical conditions; skin conditions are no exception. A free source of information to guide PCPs in assessing the risk factors for various skin diseases is the National Guideline Clearinghouse. At http://www.guideline.gov/browse/by-topic-detail.aspx?id=35620&ct=1, providers can compare diverse organizations' guideline recommendations and levels of evidence supporting current practices.

A comprehensive clinical skin exam is well within the NP scope of practice and is recommended for patients with increased risk factors, as noted by the US Preventive Services Task Force. The National Comprehensive Cancer Network's (NCCN) Clinical Guidelines in Oncology, http://www.nccn.org/professionals/physician_gls/f_guidelines.asp, are free to inform clinicians assessing and treating any potential melanoma or nonmelanoma skin cancers. The guides are regularly updated and walk providers step by step through clinical presentations, risk assessment, workup, and treatment choices.

NPs tired of frantically flipping through dermatology textbooks can access a constantly updated, concise resource at Logical Images (http://www.logicalimages.com/aboutUs/), which offers free dermatology training under the Learn Derm section. Skinsight, a free dermatology diagnosis and education app endorsed by the National Library of Medicine, can be used to identify common conditions and even print handouts. A more advanced clinical-decision support app, VisualDX contains over 1,200 dermatologic diagnoses and more than 23,000 images, which can be downloaded to an exam room computer or smartphone. This affordable, fully referenced system is constantly updated and takes the provider through every aspect of diagnosis, coding, differential diagnosis, clinical pearls, and treatment options. The free 15-day trial can provide NPs with a worthwhile learning experience. Free patient handouts and e-learning are also available at http://www.derm101.com.

The last and perhaps best informational resource is your dermatopathologist colleagues. These specialists are motivated to support NPs who request their help in making a diagnosis, seek testing recommendations, and discuss treatment options. As a dermatopathologist stated at our recent NADNP conference, your greatest tool is the telephone used to confer with these experts trained in not only medicine and pathology but also clinical dermatology. Using all of these tools enables NPs to deliver quality dermatology care comparable to that which they effectively provide for their primary care patients with cardiac, respiratory, neurologic, urologic, and other problems. JNP

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