

Clinical photography in skin of colour: tips and best practices

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High-quality photos are critical to dermatology, for both clinical care and education. Although best practices for capturing skin photos have been outlined,¹ these omit specific challenges of taking photos of dark skin. Bias against accurate capture of dark skin in photographic technology is a long-standing issue.² Colour balance with film photography relied on reference cards portraying white models,² and digital photography still has issues capturing detailed photos of darker skin.^{3,4} Thus, proper photography techniques are important to take the highest-quality photos in patients with dark skin.

A recent summary of tips for photography in dermatology¹ makes several important points about capturing high-quality clinical photos. It emphasizes the importance of using a background that provides contrast to the subject while minimizing background distractions, and highlights camera techniques that prevent distortion of the subject. We agree with these suggestions and think they should apply to all photos. In addition, we believe it is important to present the nuanced approach that, based on our clinical experience, is necessary when taking photos in patients with skin of colour.

Appropriate photography begins with obtaining consent. The history and current presence of racism in medicine requires that members of the medical team pay attention to patient comfort in the clinical setting, particularly when the patient is from a historically marginalized group. The clinician

should make clear the purpose of the photo and how it will be used, and ask for explicit permission for the intended use: research, publication, education or social media. The clinician should always consider appropriate draping, particularly when photographing sensitive areas of the body, only exposing the areas needed for accurate clinical representation. Allowing the patient to maintain necessary dignity signals respect for the patient in a situation when they are vulnerable.

Clinicians should take the following steps to ensure the best possible outcome when taking photos of patients with dark skin (see Infographic).

- 1 Natural light.** Natural light is the best option for highlighting the natural appearance of dark skin (Figure 1a). In practice, this could mean taking a photo in front of a window or outside. In contrast to the recommendation made by Muraco¹ for patients with light skin, flash and direct lighting should be avoided in patients with dark skin because of flash artefact. Flash artifact, a shine that can obscure details on the skin, can be seen in Figure 1(b). Room light (Figure 1c) is the next best option but can cause distortions in colour.⁴
- 2 Indirect light.** In an ideal scenario, lighting is reflected onto the subject and is not direct. It should come from behind and on both sides of the subject, as well as on the camera side. One could hold a white muslin cloth or white sheet on either side of the subject to provide a reflective






Figure 1 Photography in skin of colour. (a) Natural light, (b) flash photography, (c) room light, (d) overhead light for photos focusing on hair.

light source to achieve this effect. This is in contrast to light skin, which can be lit from the camera side only.

- 3 **Avoid brightly coloured or patterned backgrounds** as they can cause colour contamination of the subject. Colour contamination occurs when adjacent objects affect the tone of the photographed subject. A background that provides the highest contrast to the subject is ideal. Clinical photography of light skin often relies on a standard royal blue background; however, white or light backgrounds can also be useful for photographing dark skin because of the contrast and additional light reflection onto the subject (item 2).
- 4 **Use separate light for hair.** When taking photos of a patient of colour who has dark hair, a separate light, such as an overhead exam light, can be helpful to highlight detail that otherwise would be missed (Figure 1d), like at the hairline.
- 5 **Parallel light polarization** can enhance the appearance of epidermal processes, and may be particularly useful for a subset of images designed for publication or teaching.⁵ For lesions that primarily have erythema or pigmentary changes, using cross-polarization can aid in decreasing light reflectance and glare, which can be particularly useful in darker skin types.^{5,6} This can be accomplished in an inexpensive way using a plastic linear polarizer sheet taped over the camera lens and flash of a camera phone.⁶

Dermatologists must understand ways to achieve the best photographic representation of all patients in order to optimize patient care and the development of educational photos. Despite technology that may make it difficult to capture high-quality photographs in patients with dark skin, with practice

and understanding of the aforementioned principles it is possible to achieve accurate representation. Having inclusive guidelines that consider the ideal conditions for all skin types is necessary for equitable care.

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CLINICAL PHOTOGRAPHY IN SKIN OF COLOR: TIPS AND BEST PRACTICES



✓ **OBTAIN
CONSENT FROM THE PATIENT**
and share the specific planned use of the photographs.



✓ **USE
A SEPARATE LIGHT**
to highlight detail of dark, textured hair.



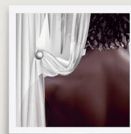
✓ **REMOVE
DISTRACTING ELEMENTS**
from the frame of the photo (ex *jewelry, glasses*).



✓ **USE
A SIMPLE, SOLID BACKGROUND**
Avoid patterned, brightly colored, or cluttered backgrounds.



✓ **USE
NATURAL LIGHT**
Position the patient near a window to take the photo.



✓ **ENSURE
APPROPRIATE DRAPING**
Only expose areas necessary to adequately represent the rash or lesion, and cover identifiable marks like tattoos, if possible.



✗ **AVOID
DIRECT LIGHT, CAMERA FILTERS, OR PORTRAIT MODE**
like the light given off by a flash. You can hold a white sheet on either side of the subject to provide a reflective light.

Lester et. al, BJD 2021