

Parent-supplied photos allow pediatric dermatology diagnoses with no office visit in most cases

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Using smartphone cameras, parents can reliably take high-quality photographs of their child's skin condition to send to a dermatologist for diagnosis. This finding suggests that direct-to-patient dermatology can accurately provide pediatric dermatology care.

The results of research conducted by a team from Children's Hospital of Philadelphia (CHOP) were published today in *JAMA Dermatology*.

"Advances in smartphone photography, both in quality and image transmission, may improve access to care via direct parent-to-provider telemedicine," said Patrick McMahon, MD, pediatric dermatologist at CHOP and senior author of the study. "Our study shows that, for the majority of cases, parents can take photographs of sufficient quality to allow for accurate teledermatology diagnoses in pediatric [skin](#) conditions. This is important because pediatric dermatologists are in short supply, with fewer than 300 board-certified physicians serving the nation's 75 million children."

Forty patient families participated in the study between March and September 2016. The study team provided photography instruction sheets to 20 families, while the other 20 received no instructions. The sample represented a wide range of ages, ethnicities, and socioeconomic backgrounds, as well as both genders equally. The majority of parents used an Apple iPhone, with the rest using an Android phone.

The researchers compared diagnoses made during in-person examinations with photograph-based diagnoses made by a separate clinician. Overall, of the 87 images submitted, the researchers found that 83 percent of the time, the photograph-based [diagnosis](#) agreed with the in-person diagnosis. Only three images did not permit a conclusive remote diagnosis, owing to poor photographic quality. Among the photographs considered high-quality enough to make a diagnosis (37 families), there was an 89 percent agreement in diagnoses.

McMahon noted that skin complaints represent 10 to 30 percent of all 200 million pediatric office visits each year, adding, "While many children's skin conditions can be handled without input from a pediatric [dermatologist](#), the national shortage of specialists is a known barrier to accessing care. Our findings suggest that telemedicine could improve access for patient families who have geographic, scheduling or financial limitations, as well as reducing wait times."

More information: Daniel M. O'Connor et al. Diagnostic Accuracy of Pediatric Teledermatology using Parent-Submitted Photographs, *JAMA Dermatology*, Nov. 15, 2017.

Provided by Children's Hospital of Philadelphia

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