

# Researchers identify barriers to fungal infection diagnosis

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There are several barriers that prevent the consistent use of fungal diagnostic preparations to correctly identify cutaneous fungal infections,

according to a survey from a team at the George Washington University (GW). The study is published in the *Journal of Drugs in Dermatology*.

Cutaneous [fungal infections](#) account for between 3.5 and 6.5 million dermatologist office visits per year. Despite their frequency, the diverse presentations of fungal infections often lead to misdiagnosis, resulting in additional costs, time, and delays in proper care. Direct microscopy using [potassium hydroxide](#) (KOH) or other stains provides an inexpensive method to diagnose fungal infections. However, this requires clinics to have the Clinical Laboratory Improvement Amendment (CLIA) certification.

"Because of the extraordinary ability for these fungal infections to mimic other skin diseases, identification based on clinical inspection alone can often lead to misdiagnosis and mismanagement," said Adam Friedman, MD, professor and interim chair of the Department of Dermatology at the GW School of Medicine and Health Sciences and senior author on the study. "Little is known regarding the frequency with which dermatologists use these simple, yet diagnosis changing bedside fungal preparations, nor do we know if and what barriers exist preventing accurate diagnosis of infections."

Friedman's team previously published research highlighting the difficulty even dermatologists have when distinguishing between skin fungal infections and other inflammatory [skin diseases](#), highlighting the importance of using laboratory-based tools to aid in patient care.

This survey, led by Emily Murphy, a research fellow in the Department of Dermatology at the GW School of Medicine and Health Sciences, was distributed via email to participants of the Orlando Dermatology Aesthetic and Clinical Conference, and the data was compiled in a web-based platform. Of the respondents, around 21% indicated they rarely/never perform fungal preparations and about 20% reported they

sometimes do, often because they think clinical diagnosis is adequate or because fungal preparations take too long. Additionally, about 21% of respondents reported not having CLIA certifications, mostly because the process requires too much work or because they do not know how to apply. Of the providers who have CLIA certification, more than 25% reported that it was difficult to obtain.

"Our results indicate the need for increased education about the many clinical faces of cutaneous fungal infections and proper use of bedside diagnostics," Friedman said. "It also highlights the need for policy-based interventions in order to ease the process of CLIA certification, to ensure that [dermatology](#) clinics are equipped to accurately diagnose infections."

**More information:** Emily C. Murphy et al. Use of In-Office Preparations by Dermatologists for the Diagnosis of Cutaneous Fungal Infections. *Journal of Drugs in Dermatology* August 2019, Volume 18, Issue 8

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