

# Handoffs in Dermatology Residency

Sophie A. Greenberg, MD



## RESIDENT PEARL

- For dermatology residents, ensuring organized handoff and follow-up practices is essential. Residency provides an opportunity to become familiar with different practices to take forward in one's career.

Dermatologists are required to keep track of a high volume of items after each patient encounter, including biopsies, laboratory tests, cultures, and imaging. In residency, there is a complicating factor of transitioning care to different providers. Residents currently utilize a variety of handoff and organizational practices. Residency provides an opportunity to become familiar with different handoff and organizational practices to take forward in one's career.

*Cutis.* 2020;105:E36-E38.

As a dermatologist, there are innumerable items to track after each patient encounter, such as results from biopsies, laboratory tests, cultures, and imaging, as well as ensuring follow-up with providers in other specialties. In residency, there is the complicating factor of switching rotations and therefore transitioning care to different providers (Figure). Ensuring organized handoff practices is especially important in residency. In a study of malpractice claims involving residents, handoff problems were a notable contributing factor in 19% of malpractice cases involving residents vs 13% of cases involving attending physicians.<sup>1</sup> There still is a high percentage of malpractice cases involving handoff problems among attending physicians, highlighting the fact that these issues persist beyond residency.

This article will review a variety of handoff and organizational practices that dermatology residents currently use, discuss the evidence behind best practices, and highlight additional considerations relevant when selecting organizational tools.

## Varied Practices

Based on personal discussions with residents from 7 dermatology residency programs across the country, there is marked variability in both the frequency of handoffs and organizational methods utilized. Two major factors that dictate these practices are the structure of the residency program and electronic health record (EHR) capacities.

Program structure and allocation of resident responsibilities affect the frequency of handoffs in the outpatient dermatology residency setting. In some programs, residents are responsible for all pending studies for patients they have seen, even after switching clinical sites. In other programs, residents sign out patients, including pending test results, when transitioning from one clinical rotation to another. The frequency of these handoffs varies, ranging from every few weeks to every 4 months.

Many dermatology residents report utilizing features in the EHR to organize outstanding tasks and results, obviating the need for additional documentation. Some EHRs have the capacity to assign proxies, which allows for a seamless transition to another provider. When the EHR lacks these capabilities, organization of outstanding tasks relies more heavily on supplemental documentation. Residents noted using spreadsheets, typed documents, electronic applications designed to organize handoffs outside of the EHR, and handwritten notes.

There is room for formal education on the best handoff and organizational practices in dermatology residency.

From the Department of Dermatology, Columbia University Medical Center, New York, New York.

The author reports no conflict of interest.

Correspondence: Sophie A. Greenberg, MD, 161 Fort Washington Ave, 12th Floor, New York, NY 10032 (sag2203@cumc.columbia.edu).



In residency, patient handoff may sometimes feel like a relay race. Optimal organizational and handoff practices can provide smooth transitions in patient care. ©Sophie A. Greenberg, MD.

A study of anesthesiology residents at a major academic institution suggested that education regarding sign-out practices is most effective when it is multimodal, using both formal and informal methods.<sup>2</sup> Based on my discussions with other dermatology residents, these practices generally are informally learned; often, dermatology residents did not realize that organization practices varied so widely at other institutions.

### Evidence Behind Handoff Practices

There are data in the dermatology literature to support utilizing electronic means for handoff practices. At a tertiary dermatology department in Melbourne, Australia, providers created a novel electronic handover system using Microsoft programs to be used alongside the main hospital EHR to help practitioners keep track of outpatient studies.<sup>3</sup> An audit of this system demonstrated that its use provided a reliable system for follow-up on all outpatient results, with benefits in clinical, organizational, and health research domains.<sup>4</sup> The investigators noted that residents, registrars, nurses, and consultants utilized the electronic handover system, with residents completing 90% of all tasks.<sup>3</sup> Similarly, several residents I spoke with personally cited using Listrunner ([www.listrunnerapp.com](http://www.listrunnerapp.com)), a Health Insurance Portability and Accountability Act–compliant electronic tool outside of the EHR designed for collaborative management of patient lists.

Outside of the dermatology literature, resident handoff in the outpatient setting mainly has been studied in the primary care year-end transition of care, with findings

that are certainly relevant to dermatology residency. Pincavage et al<sup>5</sup> performed a targeted literature search on year-end handoff practices, and Donnelly et al<sup>6</sup> studied internal medicine residents in an outpatient ambulatory clinic; both supported implementing a standardized process for sign-out. Pincavage et al<sup>5</sup> also recommended focusing on high-risk patients, educating residents on handoff practices, preparing patients for the transition, and performing safety audits. Donnelly et al<sup>6</sup> found that providing time dedicated to patient handoff and clear expectations improved handoff practices.

There is extensive literature on handoff practices in the inpatient setting sparked by an increasing number of handoffs after the implementation of Accreditation Council for Graduate Medical Education duty hour restrictions in 1989. Some of the guiding principles may be applied to the outpatient dermatology setting. Many residents may be familiar with mnemonics that have been developed to organize content during sign-out, which have been shown to improve provider care information transfer for inpatients (Table).<sup>7,8</sup> Vidyarthi et al<sup>7</sup> provided the following strategies for best practices for safe handoff based on both a review of the literature and their experiences at 3 academic internal medicine hospitalist programs: (1) organized content, (2) computer-assisted vehicle, (3) closed loop verbal communication, and (4) supportive institutional leadership and culture.

### Other Considerations

An important consideration during patient handoffs is security, especially when implementing documentation and tools outside of the EHR. It is important for providers to be compliant with institutional policies as well as the Health Insurance Portability and Accountability Act and ensure protection against cyberattacks, which have been on the rise; 83% of 1300 physicians surveyed have been the victim of a cyberattack.<sup>9</sup> Providers also should be mindful of redundancies in organizational and handoff practices. Multiple methods for keeping track of information helps ensure that important results do not fall through the cracks.

### Mnemonics Used for Handoffs in the Inpatient Setting

Mnemonic	Description
ANTICIPate	A, administrative data; N, new information; T, tasks; I, illness; C, contingency planning/code status
I-PASS	I, illness severity; P, patient summary; A, action list; S, situational awareness; S, synthesis by receiver
SBAR	S, situation; B, background; A, assessment; R, recommendation

However, too many redundancies may be wasteful of a practice's resources and providers' time.

### Final Thoughts

There are varied practices regarding organization of handoff and follow-up. Residency should serve as an opportunity for physicians to become familiar with different practices. Becoming familiar with the varied options may be helpful to take forward in one's career, especially given that dermatologists may enter a work setting postresidency with practices that are different from where they trained. Additionally, given rapid shifts in technologies, providers must change how they stay organized. This evolving landscape provides an opportunity for the next generation of dermatologists to take leadership to shape the future of organizational practices.

### REFERENCES

1. Singh H, Thomas EJ, Petersen LA, et al. Medical errors involving trainees: a study of closed malpractice claims from 5 insurers. *Arch Intern Med.* 2007;167:2030-2036.
2. Muralidharan M, Clapp JT, Pulos BP, et al. How does training in anesthesia residency shape residents' approaches to patient care handoffs? a single-center qualitative interview study. *BMC Med Educ.* 2018;18:271.
3. Poon F, Martyres R, Denahy A, et al. Improving patient safety: the impact of an outpatients' electronic handover system in a tertiary dermatology department. *Australas J Dermatol.* 2018;59:E183-E188.
4. Listrunner website. <https://www.listrunnerapp.com>. Accessed January 30, 2020.
5. Pincavage AT, Donnelly MJ, Young JQ, et al. Year-end resident clinic handoffs: narrative review and recommendations for improvement. *Jt Comm J Qual Patient Saf.* 2017;43:71-79.
6. Donnelly MJ, Clauser JM, Weissman NJ. An intervention to improve ambulatory care handoffs at the end of residency. *J Grad Med Educ.* 2012;4:381-384.
7. Vidyarthi AR, Arora V, Schnipper JL, et al. Managing discontinuity in academic medical centers: strategies for a safe and effective resident sign-out. *J Hosp Med.* 2006;1:257-266.
8. Breaux J, Mclendon R, Stedman RB, et al. Developing a standardized and sustainable resident sign-out process: an AIAMC National Initiative IV Project. *Ochsner J.* 2014;14:563-568.
9. American Medical Association and Accenture. Taking the physician's pulse: tackling cyber threats in healthcare. [https://www.accenture.com/\\_acnmedia/accenture/conversion-assets/dotcom/documents/local/en/accenture-health-taking-the-physicians-pulse.pdf](https://www.accenture.com/_acnmedia/accenture/conversion-assets/dotcom/documents/local/en/accenture-health-taking-the-physicians-pulse.pdf). Accessed January 30, 2020.