

Dermatology e-consult at a county hospital: pilot review

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To the Editor:

Telemedicine is an emerging field that uses technology to provide health care at a distance, rather than the traditional face-to-face encounter [1]. Telemedicine has especially proved to be a vital form of healthcare delivery in the midst of the COVID-19 pandemic [2]. Dermatology, being a field reliant on visual assessment and diagnosis, is highly amenable to virtual delivery.

The primary care providers (PCP) and teledermatologists involved in our e-consult study utilized an asynchronous store-and-forward method. This asynchronous technology is a convenient method that allows PCPs to store clinical images of the patient's complaint in the patient's medical record for the teledermatologist to review at a later time. Store-and-forward teledermatology has been found to have similar patient outcomes to traditional clinic-based encounters [3].

Improved accessibility and efficiency with teledermatology may also help to lessen health disparities. Insurance, racial, and socioeconomic status impact access to dermatology care. For example, skin cancer outcomes are worse for ethnic minority groups as well as underinsured individuals [4,5]. A limited number of studies have assessed the utility of teledermatology to mediate these inequities.

Our retrospective pilot study was initiated at Grady Memorial Hospital, a county hospital that serves the residents of Georgia and importantly, provides care for the underserved and uninsured of Fulton and DeKalb counties. We hypothesize that this pilot study will increase access to dermatologic care for patients of the Grady Health System.

Dermatologists at Grady implemented an "e-consult to dermatology" order which can be placed by the referring provider. Using the store-and-forward method, the provider uploads images into the patient's medical record in three different views using a program called Haiku. After the teledermatologist reviews the case and images, they respond within three business days with recommendations and/or decide to triage the patient in clinic. This e-consult to dermatology service was piloted in 2019 and has subsequently been expanded to multiple other primary care centers in the Grady Health System from March 2019-March 2021.

Through this chart review, we aimed to elucidate patient demographics and diagnoses. According to the initial analysis depicted in **Table 1**, 544 patients were seen in total. A majority (75%) of these patients came from clinics at the main hospital rather than

Table 1. Patients originated from the Green Hospital Pod at Grady Hospital, satellite site clinic in Brookhaven, or other. Etiologies were classified as inflammatory/infectious or neoplastic. Patients were either given recommendations via e-consult alone or were brought into the clinic in-person to be seen by the dermatologist. Total patients brought to the clinic were 544.

e-consults		Total 2019-21	
		N	%
Patient Origin	Hospital pods	406	75%
	Satellite clinics	119	22%
	Other	19	3%
Etiologies	Inflammatory/infectious	395	73%
	Neoplastic	126	23%
	Unable to determine/no photos	23	4%
Brought to clinic?	Yes	340	63%
	No	204	38%

satellite clinics. Additionally, 73% of diagnoses were of inflammatory/infectious etiology rather than neoplastic (of which the majority were benign).

Additionally, our data revealed that recommendations via e-consult and subsequent management by their PCP were sufficient for many patients. The actual dermatology visit avoidance was 38% of total cases, sparing 204 out of 544 total patients an unnecessary in-person clinic visit over this two year period. Concurrently (although a causal relationship cannot be assumed), wait times for new patient appointments went from approximately

three months prior to the e-consult service to two months at the end of these two years, correlating with the $\frac{1}{3}$ of visits avoided. Although more research is needed, we believe our e-consult service shows potential for effective collaboration with PCPs to address dermatologic problems efficiently and improve access to care.

Potential conflicts of interest

The authors declare no conflicts of interest.

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