



Research Week 2020

Inpatient teledermatology: Diagnostic and therapeutic concordance among hospitalist, dermatologist, and teledermatologist

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Keywords

Inpatient; dermatology; teledermatology; telemedicine; telehealth; concordance; agreement

Abstract

Inpatient dermatology has been shown to improve patient outcomes at a reduced cost. Few hospitals have dermatologists available. Teledermatology may allow dermatologists to assess hospitalized patients remotely. Objective: To examine diagnostic concordance between hospitalist, dermatologist, and teledermatologist evaluating chart data and images remotely. Methods: For 100 consecutive cases requiring inpatient dermatology consultation, a survey was conducted by all 3 raters to convey diagnostic impressions and therapeutic recommendations. Complete and partial agreements were assessed using Cohen's kappa statistic. Results: Inpatient dermatology consultation often resulted in a change in diagnosis (50.9%), and a change in systemic therapy (41.5%). Likewise, virtual teledermatology consultation would have resulted in a change in diagnosis (54.7%) and a change in systemic therapy (47.2%) at similar rates. Comparing dermatologist and teledermatologist, diagnostic complete and partial agreement was 52.8% and 84.9% respectively. Systemic therapy agreement was 77.4%. Teledermatologists recommended biopsy more often (68.5% vs 43.5%). Limitations: Small sample size, tertiary academic medical center, single rater for inpatient teledermatology with specific inpatient niche. Conclusion: Teledermatologists performed comparably to an in-person dermatologist for diagnosis and management of hospitalized patients with skin conditions. Teledermatology may be a suitable alternative for delivery of inpatient care if no dermatologist is available.