

Length of Stay Index – A Retrospective Chart Review on In-patient Dermatology Consults

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Background and Objective: In monitoring inpatient care quality and efficiency, one metric of interest is Length of Stay (LOS) by diagnosis-related group (DRG) system and how this compares to peer institutions. Vizient Inc. provides a source of such benchmarking - collecting and analyzing individual case-level data from community and academic medical center hospitals nationwide. Using this data, Vizient calculates an expected LOS by DRGs and adjusts for severity of illness and other factors for inter-hospital comparison. Because LOS reduction is an important mechanism for improving outcomes and efficiency of care, The Department of Dermatology would like to understand which dermatologic consults are exceeding the Vizient expected LOS (LOS index > 1).

Project Methods: Consecutive charts of 663 patients with dermatology-related diagnoses in the inpatient setting at IU University and Methodist Hospitals between January 2021 and January 2023 were reviewed. Parameters identified included: category of dermatologic disorder, LOS index, time to consult, and quarter of encounter. Data was organized and analyzed using paired t-tests, linear regression, and descriptive statistics in JMP software.

Results: The mean LOS index for Dermatology inpatient consults was 1.89 (n=469). Patients whose dermatologic diagnosis fell under chronic wound, mechanical, infectious, drug adverse event, autoimmune, neoplasm, inflammatory, vascular, and blistering had a significant increase in observed length of stay compared to expected length of stay ($p < 0.05$). Time to dermatology consult was not found to correlate to shortening or prolonging LOS index.

Potential Impact: The data from this review will help direct the Department of Dermatology to the dermatologic consults with the highest need for potential interventions.