

Trends in Medicare Admissions and Spending for Skin Disorders from 2014-2017



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Background

- Skin disease is prevalent amongst hospitalized patients.¹
- Primary teams caring for patients hospitalized for skin disorders are frequently non-dermatologists, with dermatologists serving as consultants.^{1,2}
- Examining hospital utilization and associated costs and reimbursements for patients admitted for dermatologic conditions is important for understanding the role of inpatient dermatology services.
- Admissions and spending for soft tissue infections such as cellulitis have been studied previously.^{3,4}
- Patterns of admissions and associated costs for other skin-related conditions are not well-characterized.

Objectives

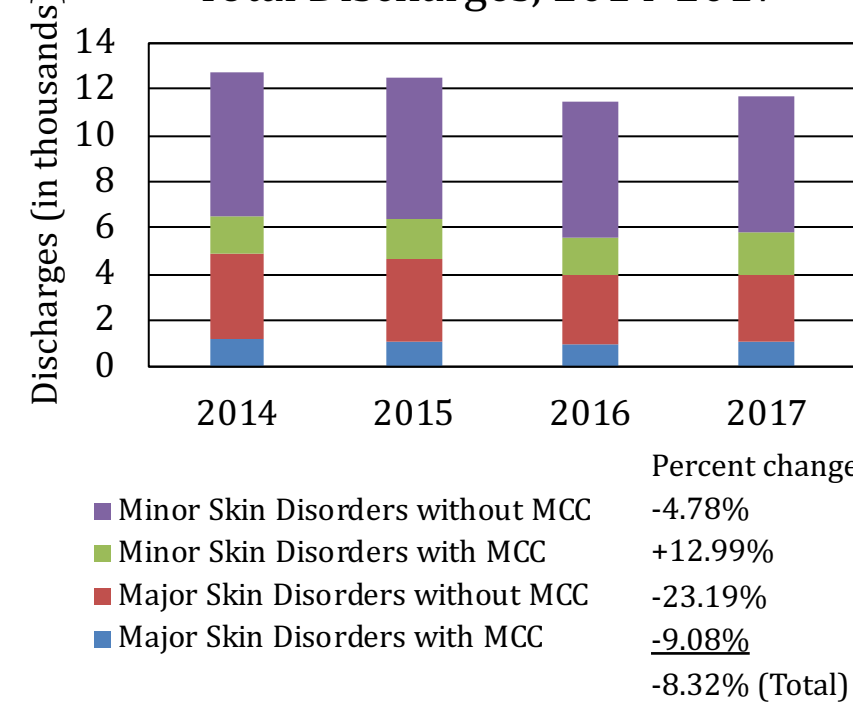
- To describe recent trends in Medicare hospitalizations for major and minor non-cellulitis skin disorders.
- To characterize costs and reimbursements for Medicare hospitalizations for major and minor non-cellulitis skin disorders from 2014 to 2017.

Methods

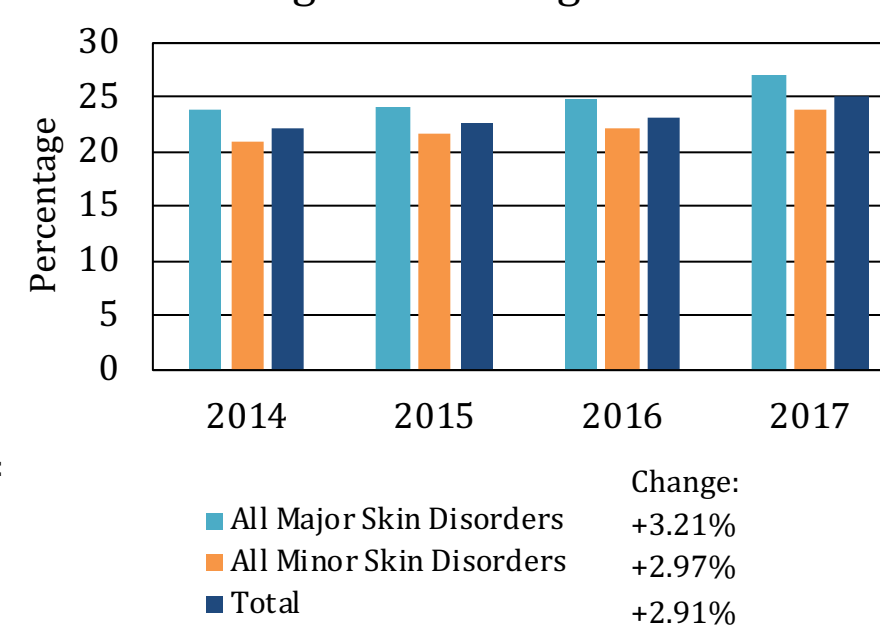
- Data source: Centers for Medicare and Medicaid Services (CMS) Inpatient Utilization and Payment Public Use Files from 2014 to 2017.⁵
- Encompasses more than 3,000 US hospitals receiving Medicare Inpatient Prospective Payment System (IPPS) payments.
- Medical Severity Diagnosis Related Groups (MS-DRGs) examined:
 - 595: Major skin disorders with major complication or comorbidity (MCC)
 - 596: Major skin disorders without MCC
 - 606: Minor skin disorders with MCC
 - 607: Minor skin disorders without MCC
- Examined trends in hospitalizations, charges, total payments, Medicare payments and proportion of charges covered by Medicare.

Results

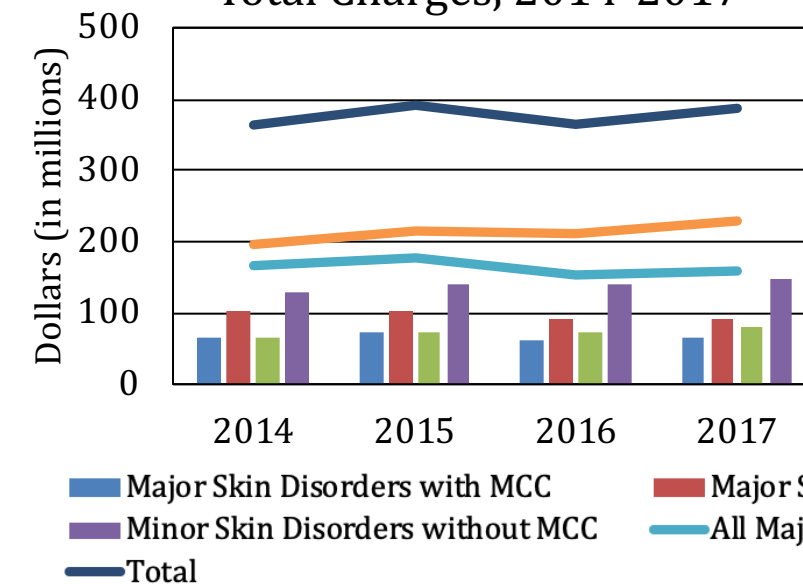
Total Discharges, 2014-2017



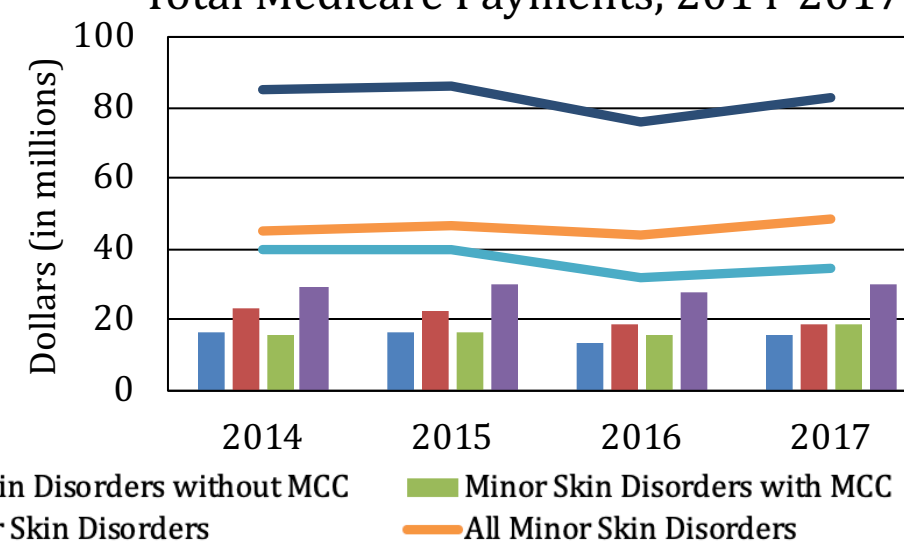
Percentage of Discharges with MCCs



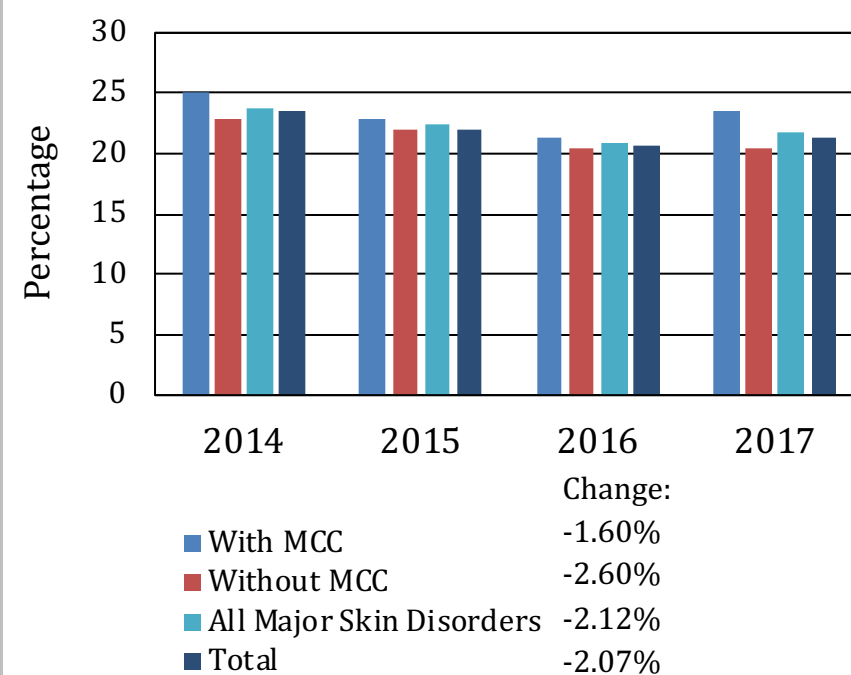
Total Charges, 2014-2017



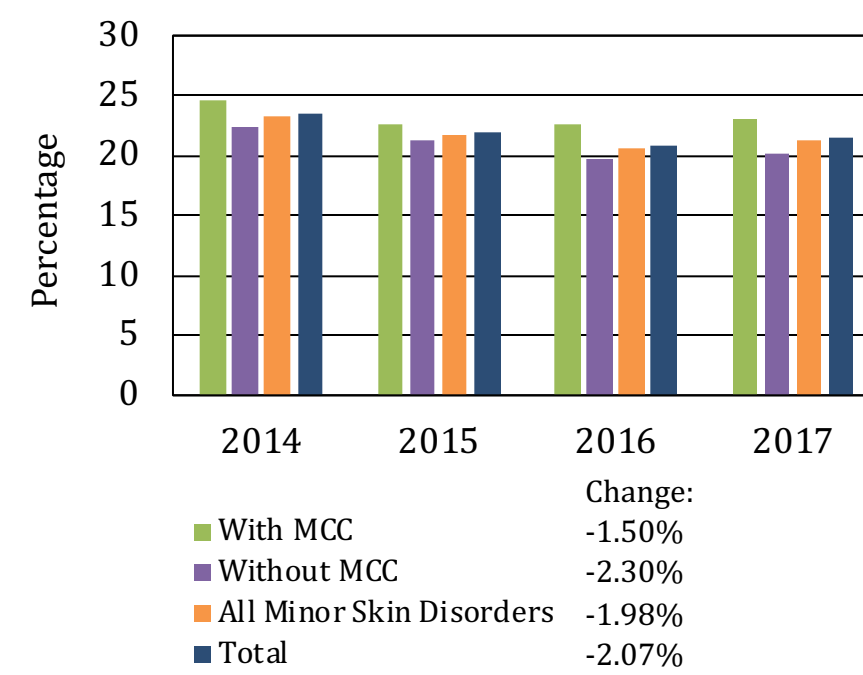
Total Medicare Payments, 2014-2017



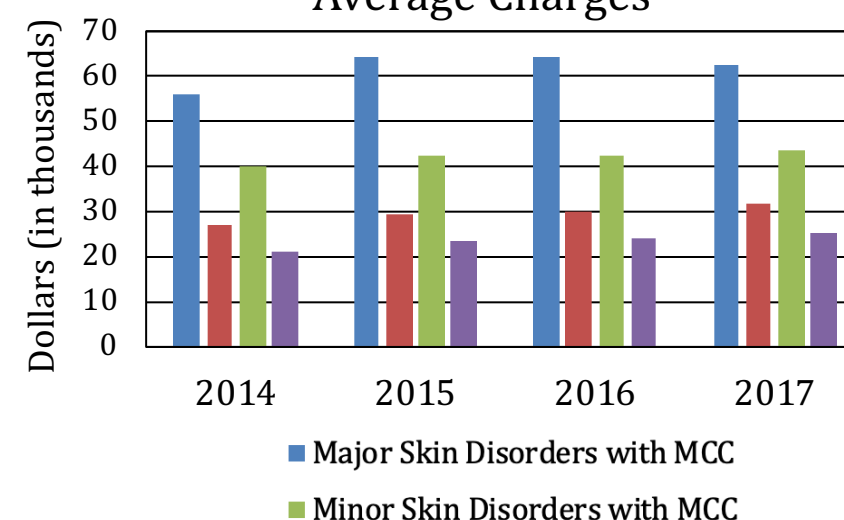
Percentage of Charges Covered by Medicare for Major Skin Disorders



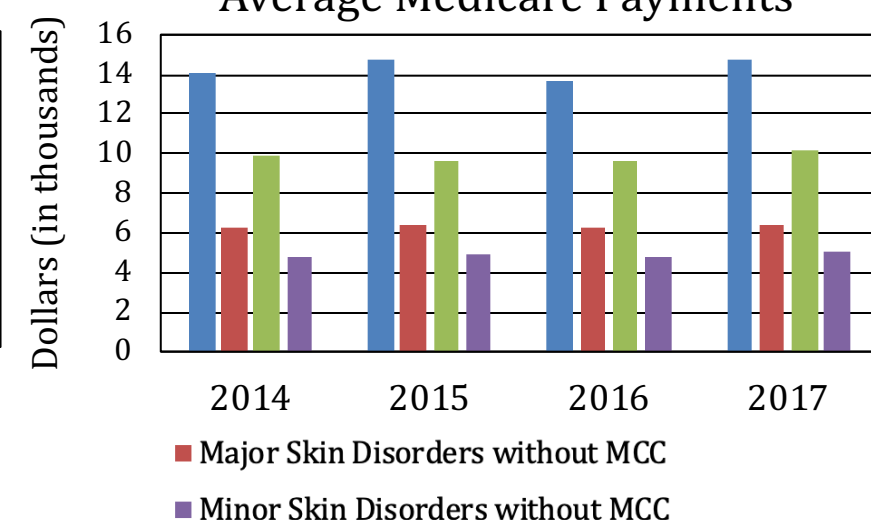
Percentage of Charges Covered by Medicare for Minor Skin Disorders



Average Charges



Average Medicare Payments



Conclusions

- Total hospitalizations for non-cellulitis skin disorders decreased from 2014 to 2017.
- There was a modest but steady increase in the proportion of admissions with major complications or comorbidities.
- Medicare reimbursements diminished relative to hospital charges.
- There may be a potentially growing need for the expertise of dermatologists to help care for an increasingly complex Medicare patient population.
- Concurrently, increasing cost constraints under DRG-based payment systems may have implications for the involvement of specialists or consultants.

Limitations

- Data only reflects Medicare patients.
- Actual costs to hospitals not available.
- Presence or absence of MCC codes may oversimplify differences in case complexity.
- Data does not provide specific details regarding diagnoses or involvement of dermatologists.

Future Directions

- Examine trends for specific diagnoses encompassed by dermatology-related DRGs.
- Compare regional and geographic differences in skin disorder admissions, costs, and reimbursements.
- Investigate the most appropriate role for inpatient dermatology services to help deliver cost-effective care.

References

1. Kirsner RS et al. Dermatologic disease accounts for a large number of hospital admissions annually. *J Am Acad Dermatol.* 1999 Dec;41(6):970-3.
2. Kirsner RS et al. The changing status of inpatient dermatology at American academic dermatology programs. *J Am Acad Dermatol.* 1999;41(6):755-7.
3. Edelsberg J, et al. Trends in US hospital admissions for skin and soft tissue infections. *Emerging infectious diseases.* 2009 Sep;15(9):1516.
4. Tun K et al. Age-based health and economic burden of skin and soft tissue infections in the United States, 2000 and 2012. *PLoS One.* 2018 Nov ;13(11):e0206893.
5. CMS. Medicare provider utilization and payment data: inpatient. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/Inpatient>. Accessed December 1, 2019.

The authors have no relevant disclosures.

Disclosure Page

Disclosures: none.