

Background

In hospitals throughout the United States, emergency department providers consistently see new patients arriving for treatment of a variety of skin and soft tissue infections. The Infectious Disease Society of America (IDSA) provides treatment recommendations for each types of infections, categorized by different factors including severity of illness and whether the condition is purulent. Many physicians select treatment options that stray from these guidelines. This study aims to retrospectively analyze prescribing habits of physicians at Decatur Memorial Hospital in Decatur, Illinois, for adherence to IDSA guidelines.

Objectives

- Evaluate the rate of provider compliance with skin and soft tissue infection guidelines
- identifying gaps in knowledge to reinforce

Methods

Patients who presented and were discharged from the emergency department between September 1st 2019 and December 31st 2019 were retrospectively evaluated based on several factors including: infection type (purulent or non-purulent), age (in years), presence of diabetes (yes or no), IV antibiotics within the last 90 days (yes or no), gender (male or female), calculated creatinine clearance (indicated by serum creatinine, age and weight during time of admission), treatment administered, duration of treatment (in days) and adherence to IDSA guidelines (yes or no). The primary outcome was the rate of adherence to the IDSA guidelines for purulent and non-purulent infections. Statistical reporting was based on descriptive analysis.

Treatment of Purulent Infections

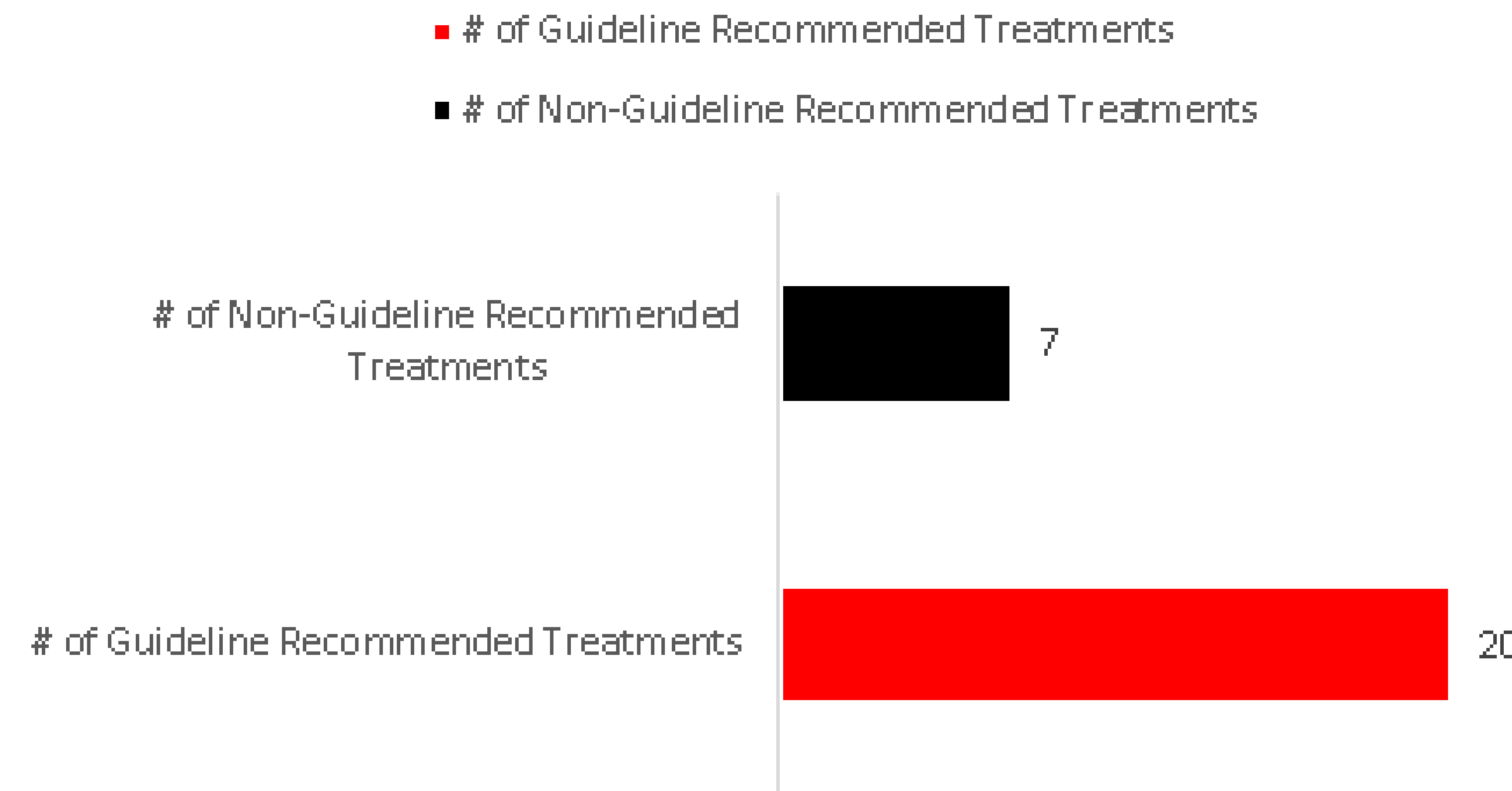


Figure 1: A comparison between guideline adherent and non-guideline adherent treatment s prescribed in patients with purulent infections

Treatment of Non-Purulent Infections

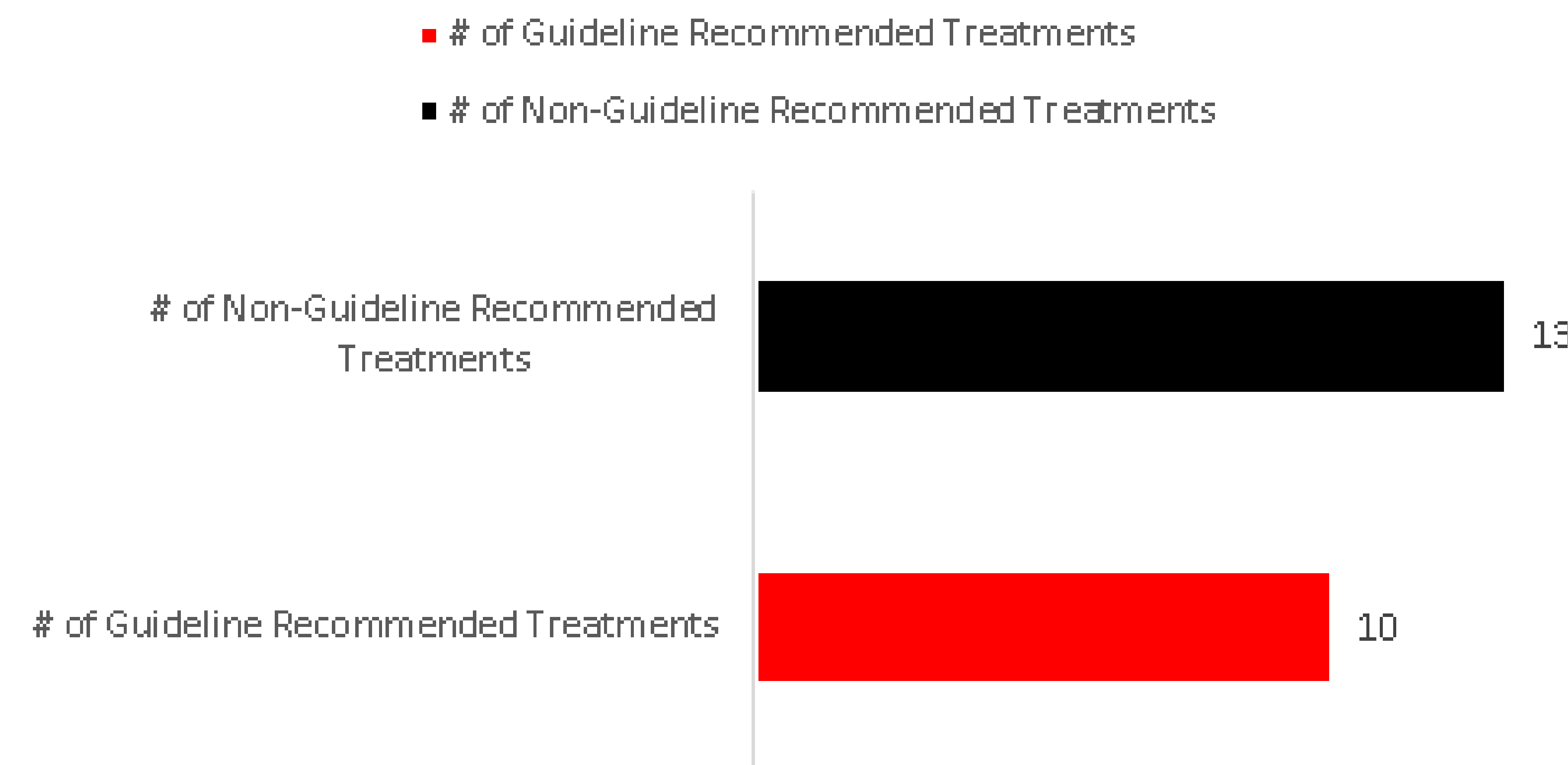


Figure 2: A comparison between guideline adherent and non-guideline adherent treatment s prescribed in patients with purulent infections

Results

Analysis of patient data and prescribing habits showed a guideline adherence rate of 74.1% and a 25.9% rate of adherence for purulent infections and a guideline adherence rate of 43.0% and a adherence rate of 57.0% for non-purulent infections. After analyzing all patient demographics noted during this study, it was found that 6 out of 11 of the patients who had a diagnosis of diabetes received non-adherent treatment to the guidelines. 11 out of the 22 males in the study received non-guideline adherent treatment, whereas 15 out of the 28 females who were studied received treatment that was not adherent with the guidelines. Age was broken down into two groups: 18-59 years of age and over 60 years of age. 15 out of the 40 patients with an age ranging between 18 and 59 received non-guideline adherent treatment, whereas 4 out of the 10 with an age greater than 60 received the non-guideline adherent treatment.

Limitations

- This study was conducted at a single-site and may not represent prescribing habits in other locations
- Data recorded was limited to discharged patients and excludes those who were admitted

Conclusion

Overall, there is a significant gap in guideline-appropriate prescribing habits when comparing purulent to non-purulent infections. This analysis identifies weak points in prescribing habits and the potential for future education to increase guideline adherence and overall improvement in patient outcomes.

References

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