The purpose was to determine significant predictors of treatment failure of skin and soft tissue infections (SSTI) in the inpatient and outpatient setting” Cieri et al (2018).

Abstract:

Purpose: The purpose was to determine significant predictors of treatment failure of skin and soft tissue infections (SSTI) in the inpatient and outpatient setting.

Methods: A retrospective chart review of patients treated between January 1, 2005 to July 1, 2016 with ICD-9 or ICD-10 code of cellulitis or abscess. The primary outcome was failure defined as an additional prescription or subsequent hospital admission within 30 days of treatment. Risk factors for failure were identified through multivariate logistic regression.

Results: A total of 541 patients were included. Seventeen percent failed treatment. In the outpatient group, 24% failed treatment compared to 9% for inpatients. Overweight/obesity (body mass index (BMI) > 25 kg/m2) was identified in 80%, with 15% having a BMI >40 kg/m2. BMI, heart failure, and outpatient treatment were determined to be significant predictors of failure. The unit odds ratio for failure with BMI was 1.04 (95% = 1.01 to 1.1, p = 0.0042). Heart failure increased odds by 2.48 (95% = 1.3 to 4.7, p = 0.0056). Outpatients were more likely to fail with an odds ratio of 3.36.

Conclusion: Patients with an elevated BMI and heart failure were found to have increased odds of failure with treatment for SSTIs. However, inpatients had considerably less risk of failure than outpatients. These risk factors are important to note when making the decision whether to admit a patient who presents with SSTI in the emergency department. Thoughtful strategies are needed with this at-risk population to prevent subsequent admission.

Reference:
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