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Antibiotic Durations for Skin and Soft Tissue Infections In Pediatric Urgent Care Clinics

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Antibiotic Durations for Skin and Soft Tissue Infections in Pediatric Urgent Care Clinics

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IRB Number: STUDY00001354

Describe role of Submitting/Presenting Trainee in this project (limit 150 words):

Trainee is an integral member of the project and was closely involved with the development of project design, building of data report, development of provider survey, as well as review and analysis of baseline data.

Background, Objectives/Goal, Methods/Design, Results, Conclusions limited to 500 words

Background: Skin and soft tissue infections (SSTIs) are the second most common diagnosis leading to pediatric antibiotic prescriptions in the outpatient setting after respiratory diagnoses. However, most antibiotic stewardship programs have mainly focused on the latter. Children seen in the ambulatory setting for SSTIs often receive >7 days of antibiotics, although current society guidelines recommend 5-7 days for most diagnoses.

Objectives/Goal: To determine the baseline percentage of patients receiving antibiotic prescriptions for >7 days for SSTIs in Children's Mercy urgent care clinics (UCC)s and to evaluate factors that influence providers towards longer durations.

Methods/Design: We built a report that extracted patient encounters from the three UCCs based on International Classification of Diseases (ICD)-10 codes for common SSTIs including impetigo, abscesses, cellulitis, erysipelas, folliculitis, paronychia, and animal bites. Data was pulled from June 2019 through June 2020. The report included patient age, concomitant diagnoses, antibiotics prescribed and their duration. We excluded encounters if the patient was transferred to the emergency department or admitted, the patient was younger than 3 months of age, no antibiotics

were prescribed, or if there was a concurrent infectious diagnosis affecting antibiotic duration. We sent a 22-question survey to UCC providers to understand prescribing habits particularly focusing on factors prompting administration of longer antibiotic courses.

Results: From June 2019-June 2020, we reviewed 2,575 encounters; we excluded 208 of those (8%). 823 (35%) of patients received >7 days of antibiotics for SSTIs while 1181 (50%) received 5-7 days and 35 (1%) received <5 days of antibiotics. 328 (14%) received topical therapy only. Most common antibiotics prescribed included cephalexin, clindamycin, and trimethoprim-sulfamethoxazole. A mild improvement in the 5-7 days duration was noted through our study period (Figure 1). The survey was sent to 50 providers with 27 responding (54% response rate). Of providers surveyed, 5 (19%), 7 (26%), and 8 (29%), expressed being uncomfortable with a 5-day treatment course for cellulitis, erysipelas, and abscesses, respectively. Barriers for shorter treatment courses included concern for acute rheumatic fever development, parental pressure, fear of complications, and accustomed antibiotic duration.

Conclusions: A third of children with SSTIs in our UCCs receive long courses of antibiotics. A mild improvement noted in our study period may be due to existing antibiotic stewardship interventions. Specific provider concerns leading to overprescribing will be targeted by quality improvement efforts.