

Poster Title: Ceftaroline Fosfamid Utilization Evaluation at an Academic Medical Center

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Background/Purpose: Ceftaroline fosfamid (Teflaro[®]) is a fifth-generation cephalosporin approved for the treatment of acute bacterial skin and skin structure infections (ABSSSI) and community-acquired bacterial pneumonia (CABP). Ceftaroline is often utilized as a reserved antibiotic in order to mitigate the development of drug-resistant bacteria and maintain effectiveness of itself and other antibacterial drugs. At The University of Kansas Health System (TUKHS), the use of ceftaroline is restricted to the treatment of serious *Methicillin-resistant Staphylococcus aureus* (MRSA) infections in patients unable to tolerate or failing vancomycin or for the treatment of respiratory infections in cystic fibrosis patients. Infectious disease physicians, antimicrobial stewardship pharmacists, and pulmonary physicians are considered authorized providers and must be listed when submitting a medication order. A drug utilization evaluation (DUE) was conducted to evaluate the appropriateness of ceftaroline use in TUKHS patients over the previous year and identify opportunities to optimize prescribing practices and manage healthcare resources.

Methods: This was a single center, retrospective DUE assessing the appropriateness of ceftaroline use at TUKHS. Eligible patients were those who had received at least one dose of ceftaroline fosfamid from July 1, 2019 to June 30, 2020. Key data points evaluated include infectious disease diagnosis, dose, frequency, duration, indication for use, consults requested, empiric vs definitive treatment, monotherapy vs combination therapy, and if MRSA was isolated. The primary endpoint of this DUE is to determine if current utilization of ceftaroline fosfamid is concordant with TUKHS approved indications. Secondary endpoints include evaluating appropriate dosing and prescribing by authorized providers.

Results: The majority of ceftaroline use at TUKHS was for the treatment of bacteremia (50%) and cellulitis (22%) infections. MRSA was isolated in 53% of patients (N=32). For the 60 patients included in the analysis (mean age 54 years), ceftaroline use for approved indications was 37% (N=33), appropriate dosage was 95% (N=57), and prescribing by authorized providers (ID and pulmonary) was 98% (N=59).

Conclusion: While prescribing of ceftaroline by authorized providers at appropriate dosage was highly compliant with current policy, the majority of ceftaroline use was for indications not currently approved for use at TUKHS. This warrants further evaluation to identify optimal indications for use at our institution and developing a collaborative approach to improving use in order to preserve effectiveness of ceftaroline for TUKHS patients.