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673. Study of Prescribing patterns and Effectiveness of Ceftolozane/Tazobactam Real-world Analysis (SPECTRA): Results from a multi-national, multicenter observational study

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Background. Ceftolozane/tazobactam (C/T) has demonstrated efficacy to treat complicated intra-abdominal infections (cIAI), complicated urinary tract infections (cUTI) and hospital acquired bacterial and ventilator-associated bacterial pneumonia. However, physicians, providers, and other stakeholders including payers want broader real-world evidence to inform clinical decisions and optimize healthcare resource use.

Methods. SPECTRA is a multi-national, multicenter, retrospective, inpatient, observational study of patients treated with C/T in Australia, Austria, Germany, Italy, Mexico, Spain and The United Kingdom. Adult inpatients treated with ≥48 hours of C/T were included. Demographics, clinical characteristics, treatment management patterns, and outcomes were analyzed.

Results. There were 687 patients from 38 participating hospitals in 7 countries. The average age was 57.6 years (±17.3 [SD]) and most were male 456 (66.4%). The majority had at least one comorbidity 563 (82.0%), with the most common being heart disease 208 (30.3%), immunocompromised state 207 (30.1%) and chronic pulmonary disease 195 (28.4%). The most common indications were pneumonia 204 (29.7%), sepsis 147 (21.4%), and cIAI 106 (15.4%); 162 (23.6%) had multiple sites of infection and 245 (35.7%) were polymicrobial infections. Median C/T treatment was 12.0 days (11.0 [IQR]). Half of the patients were admitted to the ICU 343 (49.9%), 43.4% of which was related to the infection. Clinical success was 66.1%. All-cause in-hospital mortality was 22.0% with 8.7% being infection related. 30-day all-cause readmission was 9.8% and 4.7% were infection related.

Conclusion. C/T was used to treat infections among critically ill patients and for multi-source, polymicrobial infections. Despite the complexity of the patients in this real-world analysis, most C/T patients had beneficial outcomes that are similar to results of controlled clinical trials.

Disclosures. **Alex Soriano, MD**, MSD, Pfizer, Shionogi, Angelini, Menarini, Gilead: Honoraria **Laura A. Puzniak, MPH, PhD**, Merck & Co., Inc.: former employee and stockholder **David Paterson, MBBS**, Accelerate: Honoraria|bioMerieux: Honoraria|Entasis: Advisor/Consultant|Janssen-Cilag: Grant/Research Support|MSD: Advisor/Consultant|MSD: Grant/Research Support|MSD: Honoraria|Pfizer: Grant/Research Support|Pfizer: Honoraria|PPD: Grant/Research Support|Shionogi: Grant/Research Support|VenatoRx: Advisor/Consultant **Stefan Kluge, MD**, Astrazeneca: Lecture fees|Biotest: Lecture fees|Cytosorbents: Grant/Research Support|Cytosorbents: Lecture fees|Daiichi Sankyo: Grant/Research Support|Daiichi Sankyo: Lecture fees|Fresenius Medical Care: Advisor/Consultant|Fresenius Medical Care: Lecture fees|Gilead: Advisor/Consultant|Gilead: Lecture fees|Mitsubishi Tanabe Pharma: Lecture fees|MSD: Advisor/Consultant|MSD: Lecture fees|Pfizer: Advisor/Consultant|Pfizer: Lecture fees|Phillips: Lecture fees|Zoll: Lecture fees **Alexandre H. Watanabe, PharmD**, Merck & Co., Inc.: Employee **Engels N. Obi, PhD**, Merck & Co., Inc.: Employee|Merck & Co., Inc.: Stocks/Bonds **Sunny Kaul, BSc, MBChB, PHD, FRCP, FFICM**, Chiesi: Speaker fees|Gilead: Speaker fees|GlaxoSmithKline: Speaker fees|MSD: Grant/Research Support|MSD: Speaker fees|Shionogi: Speaker fees|Vifor Pharma: Grant/Research Support.