Zerbaxa® (ceftolozane/tazobactam) – Expanded indication

- On April 21, 2022, the FDA approved Merck's Zerbaxa (ceftolozane/tazobactam) for the treatment of the following infections caused by designated susceptible microorganisms in adult and pediatric patients (birth to < 18 years old): complicated intra-abdominal infections (cIAI) (used in combination with metronidazole), and complicated urinary tract infections (cUTI), including pyelonephritis.
    - Zerbaxa was previously approved for the treatment of both infections in patients 18 years and older.
- Zerbaxa is also approved for the treatment of hospital-acquired bacterial pneumonia and ventilator-associated bacterial pneumonia (HABP/VABP) in adult patients 18 years and older.
- The approval of Zerbaxa for the expanded indication of cIAI was based on a randomized, double-blind, active controlled trial in hospitalized patients from birth to < 18 years old. Patients were randomized to either intravenous (IV) Zerbaxa plus metronidazole (n = 70) or meropenem (n = 21). Patients received IV study treatment for a minimum of 3 days before an option to switch to oral step-down therapy to complete a total of 5 to 14 days of antibacterial therapy. Clinical response rates were recorded 7 to 14 days after the last dose.
    - In the modified intention-to-treat population, clinical response was achieved by 80% of patients with Zerbaxa plus metronidazole vs. 100% of patients with meropenem (treatment difference -19.1, 95% CI: -30.2, -2.9).
- For the expanded indication of cUTI, the approval was based on a randomized, double-blind, active controlled trial in hospitalized patients from birth to < 18 years old. Patients were randomized to either IV Zerbaxa (n = 71) or meropenem (n = 24). Patients received IV study treatment for a minimum of 3 days before an option to switch to oral step-down therapy to complete a total of 7 to 14 days of antibacterial therapy. Clinical and microbiological response rates were recorded 7 to 14 days after the last dose.
    - Clinical response was achieved with Zerbaxa in 88.7% of patients vs. 95.8% with meropenem (treatment difference -7.3, 95% CI: -18.0, 10.1).
    - Microbiological response was achieved with Zerbaxa in 84.5% of patients vs. 87.5% with meropenem (treatment difference -3.0, 95% CI: -17.1, 17.4).
- The most common adverse reactions (≥ 7%) with Zerbaxa use in pediatric cIAI and cUTI patients were thrombocytosis, diarrhea, pyrexia, leukopenia, abdominal pain, vomiting, increased aspartate aminotransferase, and anemia.
- The recommended dose of Zerbaxa for the treatment of cIAI and cUTI in pediatric patients (birth to < 18 years old) with eGFR > 50 mL/min/1.73 m^2 is 30 mg/kg IV every 8 hours for 5 to 14 days (cIAI) or 7 to 14 days (cUTI).
    - Pediatric patients weighing greater than 50 kg should not exceed a maximum dose of 1.5 grams.
    - For the treatment of cIAI, Zerbaxa should be used in conjunction with metronidazole.
    - Refer to the Zerbaxa drug label for dosing for all its other uses and indications.