**Introduction**

The high prevalence of multidrug-resistant (MDR) Gram-negative bacterial infections has been observed globally. In recent years, increased rates of multidrug-resistant organisms have been reported, with many isolated MDR-GNB that have become resistant to multiple antibiotics.

**Objectives**

- To describe the characteristics of patients with complicated urinary tract infections (cUTI), complicated intra-abdominal infections (cIAI) and nosocomial pneumonia (NP) from Brazil and other Latin American countries.
- To determine the frequency of inadequate antibiotic therapy (IAT) and clinical failure rates in patients with MDR-GNB infections.
- To analyze the costs and outcomes associated with IAT failure and MDR-GNB infections.

**Materials and methods**

- This was a retrospective observational study (NCT03638348) involving medical centers in Brazil and other Latin American countries.
- The study enrolled patients with cUTI, cIAI, and NP who participated in three clinical trials: 1) the One Global study (China, Italy, USA), 2) the One Global 2 study (China, Italy, USA, Russia), and 3) the One Global 3 study (China, Italy, USA, Russia). The One Global 3 study enrolled patients from May 1, 2013 through June 30, 2014.
- Eligible patients were followed from index date defined as the date of index diagnosis up to 30 days after index date or until death, whichever occurred first.
- The study was approved by the ethics committee of each participating site.

**Study measures**

- **IAT** was defined as all antibiotic regimens not including agents active against the most frequently isolated Gram-negative pathogens. IAT may be associated with emergence of resistant pathogens, higher treatment costs, and increased antibiotic resistance.

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- **Inadequate antibiotic therapy (IAT)** was defined as an antibiotic regimen not including agents active against the most frequently isolated Gram-negative pathogens.3–5 Consequently, high consumption of last-resort drugs is quite frequent in Brazilian healthcare settings, in which can increase the risk of adverse events (AEs) and perpetuate the cycle of treatment failures.

**Limitations**

- The One Global registration study was not designed as a randomized clinical trial and therefore cannot be considered evidence of causality. However, the results of this study can provide valuable information about the characteristics of patients with uncomplicated and complicated urinary tract infections (cUTI), complicated intra-abdominal infections (cIAI) and nosocomial pneumonia (NP) from Brazil and other Latin American countries.

**References**