INTRODUCTION

- Lefamulin (Xenleta™) is a first in human pleuromutilin antibiotic approved in the US, Europe, and Canada for the treatment of community acquired bacterial pneumonia (CABP).
  - Both intravenous and oral formulations are available for the treatment of CABP in adults.
  - Lefamulin has a targeted spectrum of activity against key pathogens including typical Gram-positive, fastidious Gram-negative and atypical organisms, including strains resistant to standard-of-care therapies.
  - Lefamulin is a first-in-class, semi-synthetic pleuromutilin that inhibits bacterial protein synthesis by binding to the 50S ribosomal subunit at the A- and P- sites in the peptidyl transferase center (PTC) via an "induced-fit" mechanism, which prohibits the correct positioning of the tRNA.
- The in vitro activity and emergence of resistance to lefamulin are being monitored against a global collection of Gram-positive and fastidious Gram-negative organisms through the SENTRY Antimicrobial Surveillance Program.
- This study characterized possible resistance mechanisms among surveillance isolates with elevated