These organisms can cause a wide range of infections, the most common being pneumonia, bloodstream infections, and urinary tract infections. The overall susceptibility rates to colistin varied from 93.9% in Europe to 98.5% in North America. Important decreases in susceptibility rates among ACBg isolates were observed for aminoglycosides, carbapenems, fluoroquinolones, and polymyxins; and a pan therapeutic option was in-demand during the study period.

Materials and Methods

- Between 1997 and 2016, a total of 145,947 ACBg isolates were retrospectively collected from SENTRY Antimicrobial Surveillance Program (APAC Europe Latin America North America All regions combined) 2,035, 3,112, 6,821, and 3,112, respectively. The isolates were consecutively collected from >200 medical centres located in the Asia-Pacific, Latin America, Europe, and North America regions through the SENTRY Program.

- The distribution of the isolates stratified by geographic region is shown in Table 1. The participating countries were grouped into a common protocol to collect single isolates from patients during the study period. The isolates were identified and also subjected to antibiotic susceptibility testing following the approved standard methods. The global data were processed using Excel as well as other software (SAS, Stata, or proprietary lab) for data management.

- Antimicrobial susceptibility data were collected during the study period (1997–2016) from Europe, Latin America, and North America (APAC Europe Latin America North America All regions combined). The global database was composed of the following geographic regions: Europe, Latin America, North America, and the APAC region.

- The frequency of isolated ACBg increased during the study period (1997–2016) in Europe with a peak in 2007 and 2016. APAC Europe Latin America North America All regions combined.

- The frequency of ACBg susceptibility testing decreased from 1998 to 2016 in all regions. A total of 135,491 (93.0%) ACBg isolates were susceptible to ampicillin-sulbactam for which CLSI breakpoints were applied.

- A total of 135,491 (93.0%) ACBg isolates were more susceptible to colistin (98.0%) than to any other antimicrobial agent. Only 7.5% of these isolates were susceptible to amikacin, 8.2% were susceptible to levofloxacin, and 8.7% were susceptible to tigecycline.

- Most ACBg isolates were more commonly isolated from the United States (3,112 isolates; 1.6% of US isolates), followed by Korea (3,830 isolates; 6.6%) and France (3,666 isolates; 6.3%). Acinetobacter baumannii (ABg) was more frequently isolated from South Korea (66.4%) followed by Latin America (61.5%), APAC Europe Latin America North America All regions combined (54.4%), and Europe (55.7%). Acinetobacter baumannii (ABg) was more frequently isolated from South Korea (66.4%) followed by Latin America (61.5%), APAC Europe Latin America North America All regions combined (54.4%), and Europe (55.7%).

- The global distribution of ACBg isolates by geographic region and 4-year period is shown in Table 2. The highest percentage of ACBg isolates were from Turkey (1.7%), followed by Greece (10.8%), Italy (1.6%), and Spain (1.3%). A. baumannii was more commonly isolated from Turkey (1.7%), followed by Greece (10.8%), Italy (1.6%), and Spain (1.3%).

- The overall susceptibility rates to colistin (93.0%) were more than 98% in Europe, Latin America, and North America, and these rates were lowest in APAC Europe Latin America North America All regions combined (66.4%) followed by Latin America (61.5%), APAC Europe Latin America North America All regions combined (54.4%), and Europe (55.7%).

- The highest rate of ACBg isolates (100%) was observed for Europe, followed by Latin America and North America and the APAC region, where the frequency of ACBg isolates decreased from 1998 to 2016. A total of 135,491 (93.0%) ACBg isolates were more susceptible to colistin (98.0%) than to any other antimicrobial agent.

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