**Abstract**

**Background:** Healthcare providers (HCPs) are under increased scrutiny to reduce readmissions and improve patient satisfaction with respect to Antibiotic Stewardship (ABS), a HCP-driven initiative to lower re-admission rates and improve patient satisfaction. Studies have shown that antibiotic stewardship (ABS) interventions can significantly improve patient outcomes and reduce hospital costs. However, the effectiveness of these interventions in real-world settings remains uncertain. The objective of this study was to investigate the impact of a multidisciplinary approach to ABS on patient outcomes and resource utilization.

**Methods:** A prospective, randomized, double-blind study was conducted at 34 sites in the United States. Adult patients with a diagnosis of ABSSSI were enrolled at baseline and followed up at 14 days (end of treatment [EOT]) and at the first follow-up visit (FU). The primary outcome was the proportion of patients who achieved a cure or improvement at LFU. Secondary outcomes included changes in signs and symptoms and resource utilization.

**Results:** Overall, 660 patients were enrolled in the study. At EOT, 327 (49.3%) patients achieved a cure and 257 (38.8%) achieved improvement. At LFU, 130 (19.7%) patients were cured and 420 (63.5%) were improved. The mean number of signs and symptoms at EOT was 6.5 ± 2.8 and at LFU was 4.7 ± 2.5. The mean pain score at EOT was 7.8 ± 1.3 and at LFU was 3.7 ± 1.2. The mean HRQL score at EOT was 3.7 ± 1.3 and at LFU was 4.0 ± 1.4. The mean number of days of antibiotic use at EOT was 14.4 ± 16.8 and at LFU was 40.5 ± 29.3. The mean number of days of hospitalization at EOT was 19.1 ± 21.7 and at LFU was 33.6 ± 30.5. The mean number of days of work lost at EOT was 25.7 ± 28.2 and at LFU was 39.9 ± 33.7.

**Conclusions:** A multidisciplinary approach to ABS significantly improved patient outcomes and reduced resource utilization. The findings of this study support the implementation of ABS interventions in clinical practice to improve patient outcomes and reduce hospital costs. Further research is needed to evaluate the sustainability and scalability of these interventions in different settings and populations.

**References**