

improved communication with internal and external stakeholders, more collaborative team discussions, increased confidence in recommendations, expanded provider and staff engagement, and increased leadership involvement. **Conclusions:** In addition to improved knowledge and understanding for a variety of AS-related areas, attendees of the conference also reported a high rate of practice changes that led to perceived improvements in patient outcomes and team function.

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Antimicrobial Use Rates by Patient Care Units using NHSN Antimicrobial Use Option in TN Reporting Facilities, 2015–2023

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Background: Tracking antimicrobial use (AU) is a Core Element of Hospital Antimicrobial Stewardship Programs and important to help curb the public health threat of antimicrobial resistance. The National Healthcare Safety Network's (NHSN) AU Option serves as a way for facilities, healthcare systems, and health departments to track and report AU rates within their jurisdictions. Many analyses at the state and national levels do not assess unit-level AU rates. This study investigates AU rates among patient care units in Tennessee reporting facilities from 2015 to 2023 and the most frequently used antimicrobial agents based on AU rates within select unit types. **Methods:** A retrospective analysis was conducted utilizing data obtained from the NHSN AU Option for inpatient units in Tennessee acute care hospitals. Units were defined as critical care (including neonatal), ward, oncology ward, stepdown, operating room (OR), and mixed acuity and specialty care areas, termed 'other'. Unit types with fewer than five facilities represented were excluded. AU rates were determined by Antimicrobial Days of Therapy (DOT) per 1000 Days Present (DP). Statistical analyses, including descriptive statistics and comparison among the units by ANOVA test, were calculated using SAS Version 9.4. **Results:** Eighty-three facilities reported at least one month of data into the NHSN AU Option between 2015–2023. Among 70 facilities reporting inpatient units, the highest AU rate was observed in oncology ward units (n=12, 1114.6 DOT/1000 DP). A significant difference in AU rates was observed between oncology ward units compared to different unit types ($p < 0.001$). Vancomycin, ceftriaxone, and piperacillin/tazobactam were the most used antimicrobials with AU rates of 83, 76, and 65 DOT/1000 DP, respectively. Vancomycin AU rates were significantly higher in oncology ward units compared to stepdown, ward, other, and OR units ($p < 0.0001$). Ceftriaxone AU rate was significantly higher in stepdown units compared to oncology ward, other, and OR units ($p < 0.0001$). Piperacillin/tazobactam AU rate was significantly higher in critical care units compared to different unit types ($p < 0.0001$). **Conclusion:** During the study period, the AU rate varied across hospital inpatient units in Tennessee, with the highest AU rate in oncology wards. This unit-specific approach is critical to address the diverse antimicrobial prescribing behaviors observed, indicating that interventions should be customized to each unit's distinct antimicrobial usage patterns for successful stewardship efforts. Targeted strategies focused on individual wards rather than facility-wide initiatives appear essential for effective reduction in antibiotic usage.

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Long-term effect of intravenous antimicrobial use in a pharmacist-led ASP at a small Japanese acute care hospital

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Background: Antimicrobial resistance (AMR) remains a crucial, health-care issue for which many countries have devised a national action plan. In Japan as well, antimicrobial stewardship programs (ASP) are being implemented in acute care hospitals under this policy framework. Clinical pharmacists play a central role in ASP, often jointly with infectious disease (ID) physicians. However, in Japan, a shortage of ID physicians has resulted in some ASP being led solely by pharmacists. While reports of the short-term effects of this situation are emerging, the long-term impact of pharmacist-led ASP is still largely unknown in Japan. The present study retrospectively examined the long-term effects of pharmacist-led ASP in a small, Japanese, acute care hospital. **Method:** The present study examined a pharmacist-led ASP in an acute care hospital (287 beds) in Japan which was launched in August 2015 and assessed the duration of therapy per 1000 patient-days (DOT) as the primary outcome by comparing the pre-intervention period (April 2013–July 2015) with the intervention period (August 2015–March 2023) using linear regression analysis. Additionally, segmented time-series analysis was conducted for each, additional intervention, and the impact of reduced activity due to the coronavirus disease 2019 (COVID-19) pandemic during the intervention. The DOT at the study center were compared with the national average of facilities implementing ASP. **Result:** While the DOT for all intravenous antimicrobials showed a slight increase on linear regression ($r=0.01$; $P=0.1$), the DOT of antipseudomonal intravenous antimicrobials significantly decreased ($r=-0.027$; $P < 0.01$). Moreover, a significant reduction in DOT was observed immediately after the initiation of prospective review and feedback for carbapenems and daily prospective review and feedback for all intravenous antimicrobials (-3.2 and -2.4 ; $P < 0.001$ for the intercept). An increase in DOT was observed during the COVID-19 pandemic-related reduction in activity time, and a rapid decline was observed upon the resumption of activities. Conversely, the average, nationwide DOT significantly increased for all intravenous antimicrobials as well as for antipseudomonal intravenous antimicrobials ($r=0.02$ and $r=0.004$; $P < 0.01$). **Conclusion:** Sustaining an effective, pharmacist-led antimicrobial stewardship program led to a continual decrease in the DOT of antipseudomonal intravenous antimicrobials in a small, Japanese, acute care hospital despite a nationwide increase in their use following implementation of the national AMR action plan. Detailed analysis of pharmacists' activities across multiple facilities is necessary to verify these effects.

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Nationwide analysis of antimicrobial prescription in Korean hospitals between 2018 and 2021: The 2023 KONAS report

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