Background: Although small- and medium-sized hospitals comprise most healthcare providers in South Korea, data on antibiotic usage is limited in these facilities. We evaluated the pattern of antibiotic usage and its appropriateness in hospitals with <400 beds in South Korea. Methods: A multicenter retrospective study was conducted in 10 hospitals (6 long-term care hospitals, 3 acute-care hospitals, and 1 orthopedic hospital), with <400 beds in South Korea. We analyzed patterns of antibiotic prescription and their appropriateness in the participating hospitals. Data on the monthly antibiotic prescriptions and patient days for hospitalized patients were collected using electronic databases from each hospital. To avoid the effect of the COVID-19 pandemic, data were collected from January to December 2019. For the evaluation of the appropriateness of the prescription, 25 patients under antibiotic therapy were randomly selected at each hospital over 2 separate periods. Due to the heterogeneity of their characteristics, the orthopedics hospital was excluded from the analysis. The collected data were reviewed, and the appropriateness of antibiotic prescriptions was evaluated by 5 specialists in infectious diseases (adult and pediatric). Data from 2 hospitals were assigned to each specialist. The appropriateness of antibiotic prescriptions was evaluated from 3 aspects: route of administration, dose, and class. If the 3 aspects were 'optimal,' the prescription was considered 'optimal.' If only the route was 'optimal,' and the dose and/or class was 'suboptimal,' but not 'inappropriate,' it was considered 'suboptimal.' If even 1 aspect was 'inappropriate,' it was classified as 'inappropriate.' Results: The most commonly prescribed antibiotic in long-term care hospitals was fluoroquinolone, followed by β-lactam/β-lactamase inhibitor (antipseudomonal). In acute-care hospitals, these were third-generation cephalosporin, followed by first-generation cephalosporin and second-generation cephalosporin. The major antibiotics that were prescribed in the orthopedics hospital was first-generation cephalosporin. Only 2.3% of the antibiotics were administered inappropriately. In comparison, 15.3% of patients were prescribed an inappropriate dose. The proportion of inappropriate antibiotic prescriptions was 30.6% of the total antibiotic prescriptions. Conclusions: The antibiotic usage patterns vary between small- and medium-sized hospitals in South Korea. The proportion of inappropriate prescriptions exceeded 30% of the total antibiotic prescriptions.

Presentation Type: Poster Presentation - Poster Presentation

Subject Category: Antibiotic Stewardship

Prescriptions patterns and appropriateness of usage of antibiotics in small and medium-sized hospitals in Korea

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needed to identify the optimal EOL strategies for collaboration between antimicrobial stewardship and palliative care.

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Effect of the COVID-19 pandemic on Tennessee hospital antibiotic use

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Background: On March 5, 2020, the Tennessee Department of Health (TDH) announced the first case of COVID-19 in the state. Since then, hospitals have been overwhelmed by the spike in respiratory infections. Several studies have attempted to describe the impact of the pandemic on antibiotic prescriptions. The NHSN Antimicrobial Use Option offers a platform for hospitals to report their antibiotic usage. The TDH has established access to hospital antibiotic usage data statewide through an existing NHSN user group. We compared the change in the volume of inpatient antibiotic prescriptions. The NHSN Antimicrobial Use Option offers a platform for hospitals to report their antibiotic usage. The TDH has established access to hospital antibiotic usage data statewide through an existing NHSN user group. We compared the change in the volume of inpatient antibiotic prescriptions before and during the pandemic. Methods: An ecological study was conducted from January 2019 to December 2021. Aggregated facility-level data from the NHSN Antimicrobial Use Option were used to describe antibiotic use among Tennessee hospitals. Data from facilities that had reported at least 1 month of data during the study period were included in this study. The antimicrobial use rate was calculated by dividing the antimicrobial days of therapy (DOT) by the number of 1,000 days present. Overall antimicrobial use rates as well as specific antimicrobial use rates for azithromycin, ceftriaxone, and piperacillin–tazobactam were compared across years. Results: In total, 55 hospitals reported at least 1 month of data into the NHSN Antimicrobial Use Option during the study period. These hospitals had a median bed size of 140 (range, 12–689). Conclusions: We observed a modest increase in overall antibiotic use during the COVID-19 pandemic in Tennessee facilities. This trend appeared to be primarily attributed to agents used for community-acquired respiratory infections, such as azithromycin and ceftriaxone, earlier in the pandemic. However, both of these agents have fallen to prepandemic use levels during 2021. The fact that overall use increased in 2021 suggests that other agents not analyzed may have contributed to this effect. Further analysis may help determine which agents are responsible for this increase in 2021.

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Rapid streptococcal pharyngitis testing and antibiotic prescribing before and during the COVID-19 pandemic

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Background: Pharyngitis is 1 of the most common conditions leading to inappropriate antibiotic prescriptions. When personal protective equipment (PPE) was at first constrained during the COVID-19 pandemic, Intermountain Healthcare recommended limiting rapid group A streptococcal pharyngitis (GAS) testing in urgent-care clinics to preserve PPE. Notably, the percentage of pharyngitis encounters prescribed an antibiotic and that underwent GAS testing is a key Healthcare Effectiveness Data and Information Set (HEDIS) measure. We have described our experience with urgent-care pharyngitis encounters and the impact of temporarily reducing GAS testing on antibiotic prescribing before and during the COVID-19 pandemic. Method: We identified all urgent care encounters between July 2018 and August 2021 associated with a primary diagnosis of pharyngitis using ICD-10 CM codes and a validated methodology. Pharyngitis encounters were assessed for antibiotic prescriptions ordered through the electronic health record (EHR) and the use of point-of-care rapid GAS tests. Pharyngitis encounters were analyzed monthly. We assessed the percentage of encounters associated with an antibiotic prescription regardless of testing and the percentage of encounters associated with an antibiotic prescription when a GAS test was or was not performed. We examined 3 periods relating to COVID-19 and GAS testing recommendations: the prepandemic period (July 2018–March 2020), the pandemic onset period (April 2020–June 2020), and the pandemic period (July 2020–August 2021). Results: Prior to the pandemic, the monthly percentage of pharyngitis encounters for which rapid GAS testing was performed was nearly 90% (Fig. 1). The average monthly percentage of urgent-care pharyngitis encounters prescribed an antibiotic was 38.9%, and the average percentage of monthly pharyngitis encounters prescribed an antibiotic that also underwent GAS testing was 90.4%. This HEDIS measure declined from 90.4% during the prepandemic period to 29.8% in the pandemic onset period when GAS testing was limited. Following resumption of routine testing practices the monthly percentage of

![Figure 1](image-url)