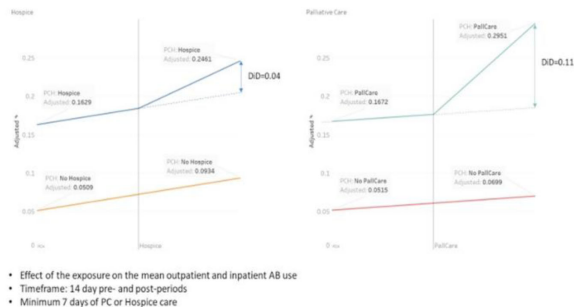


**Figure 1:** Difference in Difference (DiD) of Days of Therapy (DOT) between the two cohorts



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

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**Presentation Type:**

Poster Presentation - Poster Presentation

**Subject Category:** Antibiotic Stewardship

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

Yousoufou Ouedraogo; Christopher Evans; Daniel Muleta and Christopher Wilson

**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 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 antibacterial 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

	Year			P-value
	2019	2020	2021	
Overall AU rate (DOT per 1,000 DP)	594.8	609.6	612.8	<0.001
Azithromycin use rate (DOT per 1,000 DP)	31.7	39	31.2	<0.001
Ceftriaxone use rate (DOT per 1,000 DP)	75.3	84.9	76.1	<0.001
Piperacillin/Tazobactam use rate (DOT per 1,000 DP)	66.6	64.9	62.1	<0.001

**Fig. 1.**

community-acquired respiratory infections, such as azithromycin and ceftriaxone, earlier in the pandemic. However, both of these agents have fallen to pre-pandemic 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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**Subject Category:** Antibiotic Stewardship

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

Allan Seibert; Eddie Stenehjem; Anthony Wallin; Park Willis; Kim Brunisholz; Naresh Kumar; Valoree Stanfield; Nora Fino; Daniel Shapiro and Adam Hersh

**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 pre-pandemic 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 pre-pandemic 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. Monthly Pharyngitis GAS Testing and Antibiotic Prescribing Rates July 2018 – August 2021.** When testing limitations were introduced a concomitant increase in antibiotic prescribing for pharyngitis occurred. As testing volumes returned to pre-pandemic levels in July 2020, antibiotic prescribing decreased to pre-pandemic levels and continued to decline.

