Conclusion. We highlight the use of a risk calculator to efficiently identify ASP interventions for patients at risk for CDI.

Disclosures. **All authors:** No reported disclosures.

740. Antimicrobial Stewardship Program in a Tertiary Neonatal Intensive Care Unit

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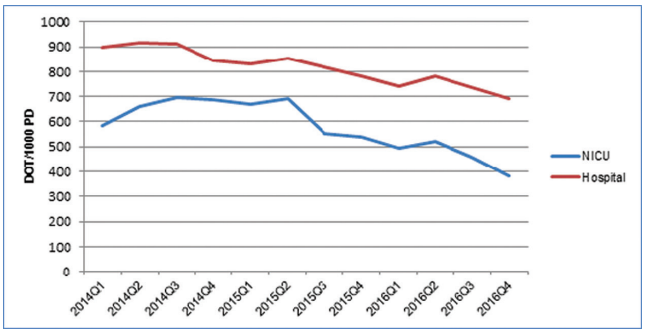
Background. Antimicrobial stewardship programs (ASP) have been recognized nationally as one way to combat antimicrobial resistance. Using data from the Pediatric Health Information System (PHIS) database, we noticed high utilization of antimicrobials in our hospital particularly in the neonatal intensive care unit (NICU), which is a level IV tertiary unit. This prompted focused ASP efforts in the NICU consisting of development of sepsis management guidelines and prospective audit with intervention and feedback.

Methods. Using the PHIS database, we retrospectively measured days of therapy per 1000 patient days (DOT/1000 PD) in the NICU during the pre-implementation (calendar year 2014), implementation (2015) and post-implementation phase (2016) to determine the change in antimicrobial utilization. All antimicrobials administered between 01/01/14 to 12/31/16 were included in the review. Quarterly use by unit expressed in mean DOT/1000 PD was used for evaluation. Secondarily, we evaluated NICU mortality, necrotizing enterocolitis (NEC) rate in the very low birth weight neonates (VLBW) and hospital wide antimicrobial utilization. Comparison of means among groups was performed by analysis of variance (ANOVA).

Results. Overall, mean DOT/1,000 PD for the NICU decreased 30% from the pre-implementation, implementation and to the post-implementation phase (656.86 vs. 613.86 vs. 463.85 DOT/1,000 PD, $P < 0.01$). Mean DOT/1,000 PD for the entire hospital pre-implementation, implementation and post-implementation phase decreased 17% overall (892.79 vs. 821.38 vs. 738.84 DOT/1,000 PD, $P < 0.01$). NICU mortality rates remained stable (2.6, 4.2 and 3.5%) from 2014 to 2016, respectively. NEC rates decreased from 8.4%, 1.6% and 3.4% from 2014 to 2016, respectively.

Conclusion. Implementation of a NICU stewardship program helped reduce antimicrobial utilization in the NICU without increasing morbidity and mortality. In our experience, this was also associated with a decrease in NEC incidence rates in VLBW neonates. Hospitals with limited resources may consider targeted unit based stewardship to help reduce antimicrobial utilization.



Disclosures. **All authors:** No reported disclosures.

741. Patterns of The use of an Institution-Specific Antimicrobial Stewardship Smartphone Application

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Background. Smartphones are increasingly used to access clinical decision support. National organizations such as the CDC, National Health Service, and Emergency Medicine Residents' Association, have created applications (apps) to assist with antibiotic prescribing. However, national guidelines do not account for local antibiotic resistance patterns and formularies. We developed and implemented an "antibiotic app" in Aug 2014 containing local prescribing recommendations for common infections, perioperative antibiotic prophylaxis, and the annual antibiogram. We released a new version in Oct 2016. The objectives of this study were to describe patterns of use and to assess provider perceptions of the antibiotic app.

Methods. This is a cross-sectional observational study using 2 data sources. Patterns of app use were tracked via Google Analytics (December 2016 to April 2017) while provider perceptions of the app were obtained via an anonymous survey administered to hospitalists and emergency medicine interns (March 2017).

Results. The antibiotic app was accessed on 1624 unique devices during the study period. The mean session duration was 2:14 minutes. The most commonly accessed content was treatment guidance for respiratory tract infections (11.5 to 15.1 sessions/day), urinary tract infections (10.7 to 13.9 sessions/day), skin and soft-tissue infections (8.5 to 11.7 sessions/day), gastrointestinal infections (3.5 to 4.7 sessions/day), and the annual antibiogram (2.1 to 3.5 sessions/day) (Figure 1).

The survey was administered to 70 providers with a 57% response rate. Eighty-four percent reported that they had ever used the app, and 84% of those considered themselves regular users. The majority of users reported that the app contributed to greater accuracy of antibiotic choice (94%) and consistency of antibiotic prescribing (81%). Overall, 91% of respondents were somewhat or very satisfied with the app (Figure 2).

Conclusion. An antibiotic smartphone app was extensively utilized and widely considered helpful to providers. Smartphone apps may be an effective tool to disseminate local antibiotic prescribing guidance.

Figure 1. Frequency of commonly-accessed content from antibiotic app, sessions per day.

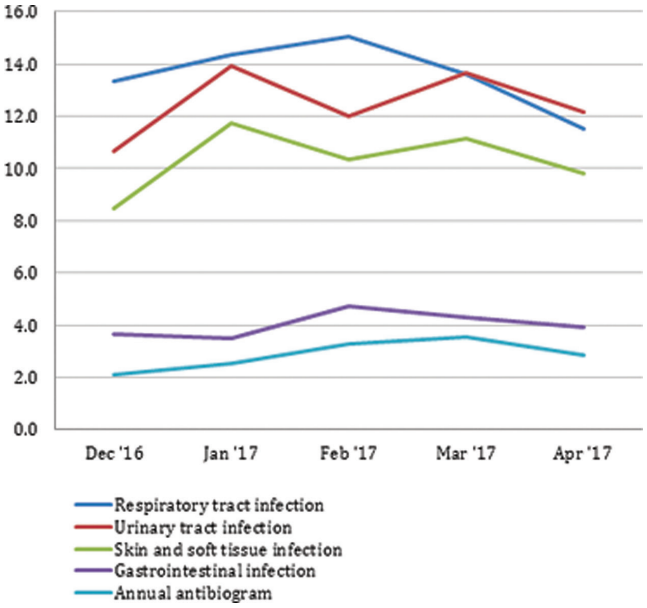
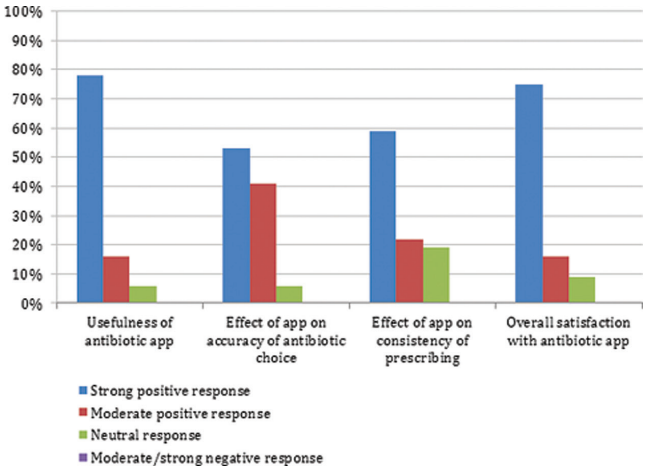


Figure 2. Provider perceptions of the antibiotic app.



Disclosures. **All authors:** No reported disclosures.