**Managing UTI/ASB in Psychiatric Hospital Patients: Protocol Development and Evaluation**

**Authors:** Kelli Costner, PharmD; Holly Gilliam, PharmD, BCPP; Caitlin Swindall, PharmD, BCIDP; Daniel McClure, PharmD, BCPS, MSCR

**Practice Site:** Carilion New River Valley Medical Center; Saint Albans Behavioral Health (SABH)

**Background:** Previously, we observed improved antimicrobial appropriateness for UTI and ASB treatment following addition of a board-certified psychiatric pharmacist (BCPP) to an inpatient psychiatric care team. We concluded that more focused BCPP services may lead to further improvements in antimicrobial utilization and obtained stake-holder approval for the development and implementation of a BCPP managed UTI/ASB antimicrobial management protocol.

**Objective:** To compare antibiotic exposure before and after implementing a pharmacist-led urinary tract infection (UTI) and asymptomatic bacteriuria (ASB) management protocol for patients admitted to an inpatient psychiatric unit.

**Methods**: This is a quality improvement and assessment study of protocolized BCPP services for oral antimicrobial therapy management for psychiatric patients admitted to SABH with ASB or UTI, including cystitis and acute pyelonephritis. The goal of the protocol is to ensure appropriate antimicrobial use for SABH patients with ASB or UTI. Protocolized BCPP services include patient assessment, inappropriate antimicrobial and urinalysis order discontinuation, initiation and adjustment of antimicrobial therapy, and patient and therapy monitoring. The protocol was initiated in December 2021 with a concurrent prospective quality assessment study to evaluate patient and protocol outcomes. Data for patients reviewed and managed under the protocol are collected monthly and up to 30 days post-discharge. Outcomes of interest include antimicrobial exposure, antimicrobial appropriateness, and time to appropriate antimicrobial therapy. Data collection is planned to continue until approximately 50 patient therapy plans have been reviewed. Outcomes of this post-protocol initiation study will be compared with those collected during a previous quality assessment study conducted following BCPP addition to the psychiatric care team.

**Preliminary Results:** To date, 26 patients over a 4-month period have received protocol directed antimicrobial therapy management. Within the first 4 months of protocol management, the most common BCPP intervention was discontinuation of inappropriate therapy. There were no negative outcomes reported including no infection-related 30-day readmissions to Carilion Clinic facilities for the 26 patients evaluated. A total of 10-12 months is estimated to reach the desired number of 50 patients for the study. Full results are expected late 2022 when post-implementation data can be adequately compared to pre-implementation data.

**Conclusion:** A BCPP-managed antimicrobial therapy protocol was successfully developed and implemented in December 2021 for psychiatric inpatients with ASB or UTI. Final protocol quality assessment results are expected in late 2022.