

Impact of a comprehensive transitions of care stewardship initiative on *Clostridium difficile* infection management and care

Abstract of Proposal

Clostridium difficile infection is one that affects many people in the United States, with high clinical and economic burdens for patients and the healthcare system. Recurrence rates are also high, ranging from 10-65%. There are several barriers to successful *C. difficile* infection (CDI) treatment that can be addressed by development of a comprehensive transitions of care (TOC) bundle service. Various initiatives for other disease states have shown benefits for patients and the healthcare system. This information has led to the development and implementation of this service for patients with CDI at Palmetto Health.

The purpose of this study is to implement a (TOC) bundle service to integrate antimicrobial stewardship, concierge pharmacy, and CDI education in order to improve patient satisfaction, clinical outcomes, and reduce recurrences and the cost burden of CDI. This project will expand pharmacy-provided services, facilitate interdisciplinary collaboration, and connect various parts of TOC to benefit patients and improve processes.

The primary outcome will be process implementation, specifically adherence to the TOC protocol. The main steps of the process (ASST evaluation, CDI education, concierge pharmacy delivery, documentation, and follow-up phone call) will be evaluated for completion for each participant. Secondary outcomes will include 90-day CDI recurrence rates of post-implementation compared to pre-implementation period at the study institution, cost savings avoided from a reduction in hospitalizations secondary to recurrent CDI, implementation cost analysis for the TOC service, and patient-reported satisfaction.

Patients who have been diagnosed with CDI and will complete their antibiotic therapy outpatient will be included in this service. The service is made up of five key components. The first is involvement and management by an antimicrobial stewardship and support team (ASST) led by pharmacists. This team will evaluate the appropriateness of CDI therapy, including the treatment choice, and the use of concomitant antibiotics or proton-pump inhibitors. The next step involves medication delivery to the patient's bedside prior to discharge in order to ensure access to therapy and decrease the likelihood of noncompliance. Then, upon delivery, disease state and medication counseling will occur, which will help the patient have a better understanding of the risk of recurrence and how to manage the remainder of therapy after leaving the hospital. Follow-up is the fourth step of the process and will occur via telephone by a pharmacist within a week of patient discharge. This provides an opportunity to answer questions, remind patients of their follow-up visit, discover any medication issues that may have arisen since leaving the hospital, etc. The last element of this service is documentation. At each step and throughout the patients' participation in the service, there will be documentation in several places accessible to any member involved in the patient's care. This fosters communication and confidence that the patient's CDI management is being addressed through a TOC standpoint.