Presentation Type:
Poster Presentation

Improving Patient Knowledge and Understanding of Their Antimicrobial Therapy: An Antimicrobial Stewardship Intervention

Kim Yeoh, The Royal Melbourne Hospital- Victorian Infectious Diseases Service; Catherine George, The Royal Melbourne Hospital; Kirsty Buising, The Royal Melbourne Hospital-Victorian Infectious Diseases Service

Background: The Australian Antimicrobial Stewardship Clinical Care Standard states that patients should receive information about their antimicrobial therapy, including their indication, how and when to take them, their duration, and potential side effects. The level of information provided to hospital inpatients about their prescribed antimicrobial therapy is not well understood. Our objective was to evaluate whether adult inpatients received specific information about their antimicrobials in accordance with antimicrobial stewardship clinical care standards, to identify any gaps that needed to be addressed. **Methods:** Patients receiving 1 or more antimicrobials for >72 hours who were admitted on an acute or subacute ward were recruited. A survey tool was designed and conducted to establish the current status of information provision to patients. The information gathered was used to develop and deliver activities and resources to facilitate better communication about antimicrobial therapy. **Results:** In total, 54 patients were surveyed. Most patients (83%) were informed that they were taking antimicrobials, and of these, 96% said they knew the indication, 18% were informed of potential side effects, and 36% knew the duration. Only 22% were informed of the review plan, and only 27% knew whether antimicrobials would be continued on discharge. Written information was given to 11% of patients. Over half of these patients (56%) either wanted more information or had concerns about their antimicrobials. Patients reported difficulty in obtaining information with some receiving information via "word-of-mouth from other patients." Moreover, 58% of patients received antimicrobial information from doctors, 13% from nurses, and 12% from pharmacists. However, most patients stated that they expected information from all 3 professional groups. In response to these survey findings, a focus group of antimicrobial stewardship experts was convened to discuss methods of improving delivery of information to patients regarding their antimicrobial therapy. We undertook nursing education to empower nurses to discuss information about antimicrobials with their patients, and we developed consumer information sheets. **Conclusions:** More needs to be done to inform patients about the antimicrobials used in their treatments to empower them to participate in their treatment. This factor will be the focus of future antimicrobial stewardship interventions.

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Improving Prescribing Practices at Hospital Discharge With Pharmacist-Led Antimicrobial Stewardship at Transitions of Care

Nicholas Mercuro, Beth Israel Deaconess Medical Center; Corey Medler, Henry Ford Hospital and Wayne State University; Nancy MacDonald, Henry Ford Hospital; Rachel Kenney, Henry Ford Hospital; Melinda Neuhauser, CDC DHQP; Lauri Hicks, Centers for Disease Control and Prevention; Arjun Srinivasan, Centers for Disease Control and Prevention; George Divine, Henry Ford Hospital; Marcus Zervos, Henry Ford Hospital; Susan Davis, Wayne State University

Background: Antimicrobial stewardship (AMS) is recommended in hospital, postacute, and outpatient settings. Transitions of care (TOC) are important in each of these settings; however, AMS efforts during TOC have been limited. Beginning in October 2018, we sequentially implemented a pharmacist-led multidisciplinary review of oral antimicrobial therapy prescribed at hospital discharge from general and specialty medicine wards across a health system. Pharmacists facilitated data input of discharge prescriptions following early identification and collaborative discussion of patients to be discharged on oral antimicrobials The purpose of this study was to evaluate the impact of AMS during TOC. **Methods**: This project was an IRB-approved stepped-wedge, quasi-experimental study in a 5-hospital health system that included hospitalized adults with skin, urinary, intra-abdominal, and respiratory tract infections who had been discharged from general and specialty wards with oral antimicrobials. Patients with complicated infections, neutropenia, or who were transferred from an outside hospital were excluded. The primary end point was optimization of antimicrobial therapy at time of hospital discharge, defined by correct selection, dose, and duration according to institutional guidance. Outcomes were compared before and after the intervention. **Results**: In total, 800 patients were included: 400 in the preintervention period and 400 in the postintervention period. Among this cohort, 252 (63%) received the intervention by a pharmacist per protocol during TOC. Patients had similar comorbid conditions before and after the intervention. Preintervention patients were more likely to be discharged from community hospitals. Before the intervention, 36% of discharge regimens were considered optimized, compared to 81.5% after the intervention ($P < .001$); this difference was largely driven by a reduction in patients receiving a duration of therapy beyond the clinical indication (44.5 vs 10%; $P < .001$). We observed similar clinical resolution, 30-day readmission, and adverse drug events (ADEs) between the pre- and postintervention periods. Postdischarge antimicrobial duration of therapy was reduced from 4 days (range, 3–5) to 3 days (range, 2–4) ($P < .001$) Severe ADEs occurred more frequently in the preintervention group (9 vs 3.3%; $P = .001$), which was driven by isolation of multidrug-resistant pathogens (7 vs 2.5%; $P = .003$) and *Clostridioides difficile* (1.8 vs 0.5%; $P = .094$). Patients who received optimal therapy at discharge were less likely to develop an ADE (aOR, 0.530; 95% CI, 0.363–0.773). **Conclusions:**

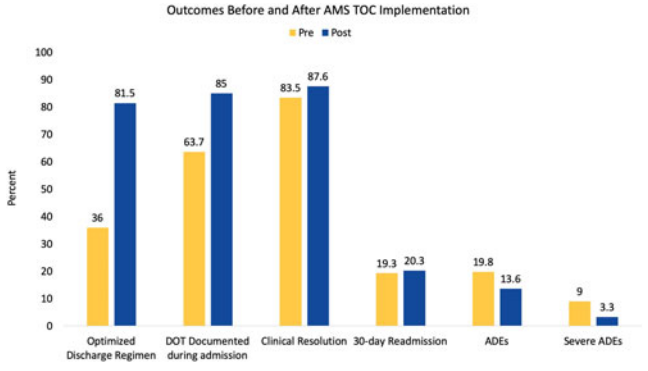

Fig. 1.