Program/Project Description: What was the problem to be solved? How was it identified? What baseline data existed? What were the goals—how would you know if you were successful?

Between 1997 and 2007, the number of visits to U.S. emergency departments (EDs) increased 23%. In 2007, the Centers for Disease Control and Prevention (CDC) reported 116.8 million ED visits, with 19.2 million (about 1/6) resulting in admission to the same hospital or to an observation unit or transfer to another hospital. Although the number of visits is increasing, many EDs are closing. More patients, fewer EDs, and insufficient inpatient beds are straining existing resources to provide emergency care efficiently and safely.

Upon discharge from an ED or a hospital, many patients receive prescriptions for medications. Nationally, at least 15.3% of all ED visits involve patients without health insurance. These patients often lack sufficient funds to fill medication prescriptions. Saunders et al report that 21% of uninsured patients fail to have their prescriptions filled after discharge from the ED. Cost is the most common reason for unfilled prescriptions; transportation restrictions and wait times at the pharmacy are also frequently reported. In our experience, failure to fill a prescription leads to a return ED visit when the condition does not improve or worsens.

Unplanned return visits to the ED within 72 hours are common (3.2%). For conditions that may be treated adequately with outpatient medications, return visits represent an avoidable strain on resources or an avoidable expense, especially if the return visit results in hospitalization. Cellulitis and urinary tract infection (UTI) represent two conditions that may be effectively treated with outpatient antibiotics. Preliminary data at our hospital demonstrate a 5.9% return rate with these selected conditions within seven days of the initial visit. This higher than average rate prompted us to explore opportunities to decrease the number of return visits and reduce the strain on an already overcrowded ED.

Based on the literature and our urban patient population, we suspected that providing therapy for treatable, acute conditions with a defined course of antibiotics would reduce return rates. We coined this initiative the “To-Go Med” program. The primary objective of the To-Go Meds program was to determine if To-Go Medications would result in decreased return visits to the ED for the same disease state in a seven day period. Secondary goals included evaluation of cost effectiveness and patient and provider satisfaction.

Process: What methodology or process was used to develop the Solution?

To-Go Meds were provided at no charge to patients discharged from the ED. Primary candidates for the program included those with no health insurance, limited resources, or those being discharged when nearby pharmacies are closed. Disease states targeted were UTI, cellulitis/abscess, and dental infections. Medications included in the program were clindamycin, sulfamethazole-trimethoprim DS (TMP-SMZ), penicillin VK, and nitrofurantoin.
Solution: What Solution was developed? How was it implemented?

The process began with several meetings in the late fall of 2008 to discuss project details, such as selection of disease states and medications, program costs, proper labeling, and the ordering/dispensing process. Simultaneously, we worked with the Information Technology Group to create an electronic ordering process using the hospital’s Computerized Physician Medication Order Entry (CPMOE) system and developed a pharmacy policy that defined the internal process for ensuring compliance with outpatient state and federal pharmacy dispensing laws. Implementation of the To-Go Meds program occurred in November 2009.

Measurable Outcomes: What are the results of implementing the Solution? Provide qualitative and/or quantitative results to data. (Please include graphs, charts, or tools as attachments.)

A total of 4,316 patients were observed in the ED from January 1 - December 31, 2010. There were a total of 229 participants in the To-Go Med program, including 112 being treated for cellulitis/abscess, 89 treated for dental infection, and 28 treated for UTI. Of these 229 patients, 8 (3.5%) had return visits within 7 days. This was a statistically significant decrease (p=0.04) from the 281 (6.9%) of 4087 patients who did not participate in the To-Go Med program but had return visits within 7 days. In terms of secondary outcomes, a potential cost avoidance of approximately $68,000 and $125,000 could be saved annually by providing To-Go Meds for the targeted conditions. Additionally, 100% patient satisfaction with care at the ED after receiving free medication was documented. In conclusion, To-Go Meds reduced return visits by 50% with a potential health care cost savings and improved patient satisfaction.

Sustainability: What measures are being taken to ensure that results can be sustained and spread?

Providing free, full-course antimicrobial therapy upon discharge from the ED demonstrated a greater than 50% reduction in return visits for the selected medical conditions (2.7% vs. 5.9% [P=0.04]). Because of these positive results, we have expanded the program to include additional medications.

Role of Collaboration and Leadership: What role did teamwork and collaboration play in the Solution? What partners and participants were involved? Was the organization’s leadership engaged and did they share the vision for success? How was leadership support demonstrated?

The departments of pharmacy, nursing, and emergency medicine collaborated to conceive, plan, and implement this program. Our Chief Medical Officer approved and supported the project in all phases.

Innovation: What makes this Solution innovative? What are its unique attributes?

Among the many personal, local, and societal implications of health care reform are the ones that affect our immediate sphere of care: ones that affect the financial health of our practice sites; ones that affect the logistics of how we provide care; ones that affect the outcomes of our patients; ones that affect the roles and responsibilities of our practitioners. We must drastically rethink what we do and how we do it to impact all the ramifications favorably. The premise should be that vision, determination, and creativity will lead to a mix of favorable results.

This innovative program describes one such approach that produced a mix of favorable results, which are described, but that required a minimum of upfront costs, and completely avoided acquisition of equipment, remodeling, major inconvenience, and distasteful role changes. Hospitals will need to consider supporting programs such as the To Go Med program that are aimed at improving health outcomes, especially when an initial financial investment is required. In summary, implementation of the To-Go Med program, with a small $1,000
one-year expense, demonstrated a 50% reduction in ED return visits for patients who were given a free, complete course of antibiotics at discharge for select conditions.

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