**Title:** Impact of a medication reconciliation completed by an embedded pharmacist within a primary care clinic on admission rates in patients with chronic disease states

**Purpose:**

Several studies have shown the positive impact a pharmacist has through the transitions of care process, but there is little data surrounding the impact an ambulatory care pharmacist embedded in a primary care clinic has during this process. The purpose of this study was to observe the impact on hospital readmission rates and ED visits after a pharmacist embedded in a primary care clinic completes a medication reconciliation within 24 to 48 hours after discharge in a patient with a chronic disease state (chronic heart failure [CHF], type 2 diabetes mellitus [T2DM], and/or chronic obstructive pulmonary disease [COPD]).

**Methodology:**

This study is a retrospective chart review comparing patients in which medication reconciliations were completed versus were not completed by an embedded pharmacist within 24 to 48 hours for patients discharged from Novant Health Forsyth Medical Center (FMC). Patients were identified from a data collection sheet the pharmacist at Maplewood Family Medicine Clinic compiled. All patients had a primary care provider at Maplewood Family Medicine and one of the three chronic medical conditions type 2 diabetes (T2DM), chronic heart failure (CHF), or chronic obstructive pulmonary disease (COPD). The primary endpoint was to identify the percentage of patients who were readmitted to the hospital within 30-days of discharge. The secondary endpoints were to identify the percentage of patients who presented to the ED within 30-days of discharge, number and type of interventions a pharmacist recommended, if a medication reconciliation was completed by a non-pharmacist, and percentage of how often the TCM billing code was utilized. Analysis of the primary and secondary endpoints were conducted using the Chi-squared test and descriptive statistics.

**Results:**

There was a total of 17 patients with 10 patients being in the reached group and 7 being in the unreached group. The average age of the population was 73 years old and it was 38% female. The most common disease state diagnosis was T2DM, followed by CHF, and COPD. The patients in the reached group had a 30-day readmission rate of 10% where the unreached group had a readmission rate of 29%. However, the reached group saw 30% of patients present to the ED at 30 days, whereas only 29% in the unreached group presented to the ED. A TCM charge was dropped for 30% of patients in the reached group versus 29% of patients in the unreached group. Majority of patients did have a follow-up with their PCP in both groups (60% for reached group versus 71% in the unreached group).

**Discussion:**

The pharmacist intervention did help with 30-day readmission rates. However, there was not a large improvement in ED visits or TCM charges. Therefore, there is room for improvement on the pharmacists facilitating TCM billing. With the limited sample size our data did not reach power and would need to be examined on a much larger scale. This study did lay the framework for future studies to be conducted utilizing a larger number of patients in multiple ambulatory care clinics.