

A pilot study to evaluate a telepharmacy intervention to improve inhaler adherence in veterans with COPD

Objectives: The primary objective is to determine the feasibility of implementing a telephonic counseling intervention in veterans with COPD. Secondary objectives include assessing the impact of the counseling intervention on patient's inhaled adherence and examining patient's acceptance of the intervention.

Clinical Relationship: Current therapeutic management for moderate to severe COPD utilizes combinations of LABA, tiotropium, and ICS. While these medications have a significant effect on COPD by decreasing exacerbations and all-cause mortality, poor adherence negates these benefits and exposes patients to higher risk for symptomatic exacerbations or death. Adherence to inhaler medications in COPD is often poor and tends to worsen over time. Education has been shown to have a positive effect on adherence in COPD; however, many of these interventions require patients physically to come into the clinic. Many VA patients do not live within close distances to the hospital and are required to drive several hours for clinic appointments. They would likely be unwilling or unable to come to the clinic for a COPD education class which makes a telephone intervention an ideal choice.

Methodology: Patients will be prescreened for poor adherence from a computer generated list of active VA prescriptions for a LABA and/or tiotropium with or without an ICS. All patients will also have an active ICD-9 code for COPD. Patients with a medication possession ratio of less than 80% or over 120% will be invited to participate in the study. The medication possession ratio is calculated by dividing the number of days of medication filled out of the total number of days elapsed. One hundred patients will be randomized to receive the counseling intervention or usual care. The counseling intervention consists of a telephone call to review the patient's medication use and identification of barriers to adherence with counseling to improve inhaled medication use. Approaches to improve adherence include motivational interviewing, education about COPD and inhaler technique, and reminder tools to enhance inhaled medications adherence. Six months after the phone counseling, profile reviews will be conducted for post intervention medication possession ratio, number of exacerbations, and hospitalizations. Patient report of adherence will be compared between the intervention group and the usual care group using Morisky's 8-item adherence measure. A small subset of participants from the intervention group will be interviewed for their acceptance of the counseling intervention.