

Purpose

The United States spends \$300 billion dollars a year on medications and an almost equal amount is spent on medication related problems (MRPs). Pharmacists are being incorporated into multidisciplinary teams to help manage complex medication regimens in hopes of preventing MPRs. Utilizing our own population health pharmacists, we created an anti-inflammatory disease management program for employees (AIDME). The purpose of this study is to determine the impact pharmacists have on patient's medication adherence with these high risk/ high cost medications in collaboration with our specialty pharmacy.

Methods

This is a retrospective, quality improvement study that took place between January 2020 and March 2021. In order to be included in the study you must be utilizing the employee health plan and on any of the following anti-inflammatory medications: Abatacept (Orencia), Adalimumab (Humira), Anakinra (Kineret), Apremilast (Otezla), Baricitinib (Olumiant), Brodalumab (Silig), Certolizumab (Cimzia), Dupilumab (Dupixent), Etanercept (Enbrel), Golimumab (Simponi), Guselkumab (Tremfya), Ixekizumab (Taltz), Risankizumab (Skyrizi), Sarilumab (Kevzara), Secukinumab (Cosentyx), Tocilizumab (Acetemra), Tofacitinib (Xeljanz/ Xeljanz XR), Tildrakizumab (Ilumya), Upadecitinib (Rimvaq), and Ustekinumab (Stelera). The only exclusion criteria is being under the age of 18. The primary outcome was to assess the patient's medication adherence rate by comparing the proportion of days covered (PDC) in two comparative groups from 2020 to 2021. Secondary outcomes include assessing the number and type of pharmacist interventions of those patients that participated in AIDME program.

Results

A total of 171 patients were screened for inclusion in 2020 and 159 patients were included. There were 10 patients excluded due to filling at multiple pharmacies and 2 patients excluded due to their age. Utilizing patient's fill histories, their baseline PDC was significantly higher when filling at our specialty pharmacy compared to our retail pharmacies (0.98 vs 0.85, $p=0.012$). Of the 159 patients included from 2020, 92 patients filled their prescription within the first quarter of 2021 and there were 7 new patients that filled a prescription in 2021. The 67 patients who did not fill a prescription in quarter one of 2021 was due to various reasons whether it was change of insurance, discontinuation of the medication, change of employment, etc. Of those 92 patients that filled a prescription in the first quarter of 2021, the PDC for our specialty pharmacy improved compared to the prior year (0.98 vs 1, $z=-4.17$, $p < 0.001$). Of the original 171 patients, there were 3 patients that participated in the inaugural AIDME program. From those 3 patients, there were 9 pharmacist interventions made regarding medication indications (33%), medication efficacy (33%), medication safety (12%), and medication adherence (22%). From those interventions it is estimated that there was \$2,706 in cost avoidance.

Conclusion

Having more high touch follow-up interactions with a pharmacist leads to better health outcomes.