

Poster #10

Courtney Hugie

Other, College of Pharmacy

Iowa City Veterans Healthcare System (ICVHS)

Pharmacy Practice Resident

Title of Research: Use of Glucose Lowering Drug Classes and A1c at Insulin Initiation in the National Veteran Population

Other Authors: Courtney Hugie, PharmD, Nancee Waterbury, PharmD, BCACP, Bruce Alexander, PharmD, Robert Shaw, PharmD, MPH, BCPS, BCNSP, Jason Egge, PharmD, MS, BCPS

Introduction/Purpose:

Type 2 diabetes (T2DM) often requires intensification with insulin to obtain glycemic control. Insulin is frequently delayed despite evidence for earlier use. The purpose of our study was to determine if the use of multiple classes of glucose-lowering agents (GLA) was associated with a difference in A1c at insulin initiation within the VA Healthcare System.

Experimental Design:

The primary objective was to determine the A1c at insulin initiation for patients on one, two, three, or greater than three GLAs. The secondary objectives were to determine if multiple glucose lowering drug classes delay insulin initiation or prolong the amount of time T2DM remains uncontrolled prior to insulin use. Our retrospective national cohort study utilized electronic data to identify veterans with T2DM who had their first VA insulin prescription filled between 1/1/2009 and 8/28/2013. Veterans were grouped into cohorts based upon the number of glucose lowering drug classes prior to insulin.

Results:

In veterans receiving one, two, three, or greater than three GLAs the mean A1c was 10.3, 9.9, 9.5, and 9.7%, respectively. Mean days to insulin initiation were 871, 1875, 2614, and 2994 for the respective groups. The mean amount of time A1c was >8% prior to insulin initiation was 179, 497, 815, and 874 days.

Conclusions:

Glycemic control is similar at insulin initiation among patients receiving one, two, three, and greater than three GLAs prior to insulin. Delays to insulin initiation and prolonged amounts of time of uncontrolled diabetes occur in veterans on a greater number of GLAs.