Poster #14
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Title of Research: A Longitudinal Analysis of High Risk Medication Use among Beneficiaries in Two Medicare Drug Plans

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Introduction/Purpose:
To describe the use of high risk medications (HRMs) and assess associated factors for MTM beneficiaries from two Medicare Part D plans (one MA-PD and one PDP) over three years.

Experimental Design:
This is an observational study, using a cohort of Medicare Part D beneficiaries from two drug plans who were in one MTM program that regularly stimulated targeted medication reviews. Four 6-month periods were used to determine HRM use during 2010 to 2012. Beneficiaries from each plan aged 65 or older with at least one prescription in any study period comprised the study sample (n = 33,516). Their prescription claims (n=115,206) generated throughout all study periods were extracted for analyses. The percentage of HRM user was plotted for the two plans across the four study periods. Also, a generalized estimating equation (GEE) approach was used to assess factors associated with likelihood of using HRMs among this particular population. All statistical analyses were performed in SAS and R.

Results:
The percentage of patients taking HRMs declined over time in both plans. The likelihood of using HRMs was decreasing over time, controlling for other factors ($p < 0.0001$). Additionally, the association between likelihood of using HRMs and the number of non-high risk prescriptions, age, or gender differed between prescription drug plans ($p < 0.0001$). In both plans, females, younger seniors, and those with more prescriptions were found to have a higher likelihood of HRMs use compared to their counterparts.

Conclusions:
The use of HRMs among beneficiaries in two Medicare drug plans decreased from 2010 to 2012. This trend might be explained by policies and strategies implemented by CMS and the MTM program. Such policies and strategies include having HRMs use in drug plan quality (Star) ratings, MTM intervention targeted at HRMs use, and efforts to increase comprehensive medication reviews.