household members during baseline to determine prevalent household use.

Results: We identified 218,594 prescription opioid and 114,767 prescription NSAID initiators between 2000-2013. Of these initiators, 160,404 (73% opioid) and 82,359 (72% NSAID), respectively, were enrolled within a household. Household size (median: 3 members, interquartile range (IQR): 2-4) and age of household members (median: 21 years, IQR: 12-45) were similar in both treatment groups. Prevalent household use of prescription opioids was 27% (95% confidence interval (CI): 27-28) among opioid initiators and 24% (95% CI: 24-24) among NSAID initiators. Prevalent household use of prescription NSAIDs was 20% (95% CI: 19-20) among NSAID initiators and 18% (95% CI: 17-18) among opioid initiators.

Conclusions: In our new user cohort, we observed high levels of prevalent household opioid use among both treatment groups. Comparative safety studies should consider the household availability of medications as a potential source of exposure misclassification which may introduce prevalent-user bias into new-user designs.

242. Assessment of Channelling Bias Among Initiators of Glucose Lowering Drugs - A Cohort Study

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Background: Channelling bias may occur when a newly marketed drug and an established drug, despite similar therapeutic indications, are prescribed to patients with different prognostic characteristics (also known as confounding).

Objectives: To investigate channelling bias and its impact on estimated effectiveness of GLP1 and DPP4, compared to basal insulin and sulfonylurea (SU), respectively.

Methods: We used CPRD data to include patients with T2D, initiating treatment (6 months drug-free) between 2007 (when GLP1 and DPP4 were approved by EMA) and 2015. All analyses were split in 7 time blocks of 365 days each. The characteristics of patients initiating GLP1 versus basal insulin, and DPP4 versus SU were compared over time. After propensity score matching (based on sex, age, BMI, diabetes duration, Charlson comorbidity score, use of other glucose-lowering drugs, use of anti-hypertensives, statins, anti-coagulants and diagnoses of hypertension, renal disease, myocardial infarction, and stroke), relative effectiveness on 6 month changes in HbA1C (%) was estimated.

Results: In total, 8,398 GLP1, 14,807 insulin, 24,481 DPP4, and 33,505 SU initiators were identified. Time trends for GLP1 and DPP4 showed that use of anti-hypertensives decreased among GLP1 initiators, and increased among DPP4 initiators. Use of other oral glucose-lowering drugs decreased, BMI decreased, and use of statins increased among DPP4 initiators. For other characteristics the difference between comparison groups were small and did not indicate channelling.

Propensity score matched analyses included 4,072 pairs of GLP1 and insulin initiators, and 10,620 pairs of DPP4 and SU initiators. For both comparisons relative effectiveness was similar across different time blocks: GLP-1 vs. insulin 0.14% [95%CI: 0.05;0.23], DPP4 vs. sulfonylurea -0.34% [-0.39;-0.29] (relative effect pooled across time blocks).

Conclusions: Channelling was not widespread and relative effectiveness appeared constant since launch of the drugs. It was possible to match many patients, which allowed for assessing relative effectiveness even in the early years after drug launch.

243. Matching on the Disease Risk Score vs the Propensity Score

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Background: Choosing an appropriate caliper distance is essential for achieving covariate balance and

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