OBJECTIVES: Updated risk equations are available for predicting outcome in people with type 2 diabetes (T2D): the UKPDS Outcomes Model (UKPDS 68). It is important to assess the validity of applying risk equations to populations other than those from which they were derived. The objective was to evaluate how well the UKPDS-68 equations predicted vascular morbidity and mortality in real-life data from Cardiff, UK, and compare estimates with the previous UKPDS Risk Engine equations (UKPDS-RE [from UKPDS publications 56 and 60]).

METHODS: The equations were incorporated into a stochastic simulation model that estimated the incidence and prevalence of complications (DiabForecaster). Predicted results from the model were compared with population data from Cardiff for coronary heart disease (CHD), stroke and all cause mortality. The annual incidence of newly diagnosed T2D, baseline modifiable risk factors and demographic profiles were matched to the Cardiff data. RESULTS: Internal validation, using a baseline cohort matched to the UKPDS study, demonstrated that the model predicted 12-year cumulative incidence in line with previous UKPDS publications. Real life and predicted event rates for CHD were: 116, 153 and 137 events/1000 T2D patients/yr for the Cardiff data, UKPDS-RE and UKPDS-68, respectively. For stroke: 178, 153 and 128 events/1000 T2D patients/yr, respectively. For all data, UKPDS-RE and UKPDS-68, respectively. For stroke: 178, 116, 153 and 137 events/1000 T2D patients/yr for the Cardiff publications. Real life and predicted event rates for CHD were: 116, 153 and 137 events/1000 T2D patients/yr for the Cardiff data, UKPDS-RE and UKPDS-68, respectively. For stroke: 178, 153 and 128 events/1000 T2D patients/yr, respectively. For all data, UKPDS-RE and UKPDS-68, respectively. CONCLUSIONS: All UKPDS equations demonstrated internal validity when compared with published UKPDS data, however both UKPDS-RE and UKPDS-68 equations over predicted the incidence of CHD and mortality and under predicted stroke. While all endpoints predicted were reasonably concordant with observational data discrepancies between UKPDS-68 and UKPDS-RE are worthy of further investigation.

PDB24

EFFECTS OF INDUCING CORRELATION AMONG CHOLESTEROL PARAMETERS ON OUTCOMES IN SIMULATION OF PHARMACEUTICAL EFFECTIVENESS Frick KD1, Sorensen SV2, Hollenbeck C2, Wade A1

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OBJECTIVES: To determine whether inducing correlation among triglyceride, HDL, and LDL levels in a pharmaceutical treatment Monte Carlo simulation affects parameters’ means and variances; proportion with all parameters controlled; and summary statistics of estimated total cholesterol. METHODS: Means, standard deviations, and correlations among the cholesterol parameters were estimated from NHANES data for metabolic syndrome (MS) and diabetic patients with all parameters uncontrolled. For simulation, distributions were fit to the data. Analyses used 1000 replications of populations of 1000. Populations were generated without correlated parameters and with correlation induced in the uncorrelated data. Estimated changes in triglyceride, HDL and LDL when their associations with drug treatment groups are broken, drug group. CONCLUSIONS: These predicted probabilities are basis for IPTWs used to estimate mean marginal outpatient costs for each drug group. CONCLUSIONS: Effects of confounders are broken when their associations with drug treatment groups are broken, and this can be done using MSM where the data is reweighted such that confounders have similar distributions within drug comparison groups.
were associated with an increased risk in Model I, while there was no association in Model II; depression was associated with an increased risk in Model II, while there was no association in Model I. All other variables were not significant and were consistent between the two models. CONCLUSIONS: SGAs were not associated with an increased diabetes risk when compared to FGAs. Including propensity scoring in a retrospective cohort design may alter the results of some covariates; however, it did not change the results regarding the class of antipsychotics utilized and risk of diabetes mellitus.

PDB29

IMPACT OF TYPE OF PHARMACY (CHAIN VERSUS INDEPENDENT) ON MEDICATION ADHERENCE IN PATIENTS WITH TYPE 2 DIABETES: A RETROSPECTIVE DATABASE ANALYSIS
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OBJECTIVE: Studies have indicated that independent pharmacies outperform chain pharmacies in one-on-one personal attention and quality of patient counseling. However, there are no studies examining whether these benefits translate into outcomes.