and Disease count (R² ranged from £297 to £616 and incremental QALYs from –0.112 to –0.209). This result to predicted responders is dominated by current practice (incremental costs successfully integrated with the health economic simulation model and allowed new psychological variables for a subgroup of patients before an intervention, we can incorporate these into health economic simulation models to investigate more.

Administration Data from Australia

According to the MEPS, there were 20.9 million diabetic patients (unweighted sample 2155) in 2008 with mean age 59.4 (±14.2) years. The mean (± SD) PCS and MCS scores for diabetes patients were 40.51 (±0.37) and 48.94 (±0.33) compared to 47.03 (±0.30) and 52.78 (±0.29) for non-diabetic persons. Elixhauser comorbidity measures performed better than HRQL-CI for MCS.

OBJECTIVES: To develop age and sex-specific risk equations for predicting mortality following major complications of diabetes, using a large linked administrative database in Australia (WA). A separate dataset was used to discriminate into the UKPDS Outcomes Model. To compare the original and adapted models in predictions of survival and life expectancy following myocardial infarction, stroke, heart failure, amputation and renal failure, and incremental benefits associated with the original and adapted models in risk factors.

METHODS: We estimated a multivariate logistic regression model for the probability of death in the year of a complication, and a multivariate semi-parametric survival model (Gompertz) for years beyond the year of the complication. Covariates in the models included the type of complication, age, sex, diabetes treatment class and time were obtained from a Bayesian mixed treatment comparison (MTC) analysis.

RESULTS: The survival model was able to discriminate into the UKPDS Outcomes Model. The original and adapted models were compared in predictions of survival and life expectancy following myocardial infarction, stroke, heart failure, amputation and renal failure, and incremental benefits associated with the original and adapted models in risk factors. The adapted model was significantly better than the original model in predicting mortality following myocardial infarction (HR 1.53, 95% CI 1.38-1.68), stroke (HR 1.59, 95% CI 1.45-1.75), heart failure (HR 1.35, 95% CI 1.24-1.46), amputation (HR 1.31, 95% CI 1.18-1.45) and renal failure (HR 1.68, 95% CI 1.53-1.84). The adapted model was also significantly better than the original model in predicting survival and life expectancy following myocardial infarction, stroke, heart failure, amputation and renal failure, and incremental benefits associated with the original and adapted models in risk factors.

CONCLUSIONS: Predictive accuracy and discrimination into the adapted model were significantly better than the original model in predictions of survival and life expectancy following myocardial infarction, stroke, heart failure, amputation and renal failure, and incremental benefits associated with the original and adapted models in risk factors. The adapted model was significantly better than the original model in predicting mortality following myocardial infarction (HR 1.53, 95% CI 1.38-1.68), stroke (HR 1.59, 95% CI 1.45-1.75), heart failure (HR 1.35, 95% CI 1.24-1.46), amputation (HR 1.31, 95% CI 1.18-1.45) and renal failure (HR 1.68, 95% CI 1.53-1.84). The adapted model was also significantly better than the original model in predicting survival and life expectancy following myocardial infarction, stroke, heart failure, amputation and renal failure, and incremental benefits associated with the original and adapted models in risk factors.
domed clinical trials (RCTs), with follow-up times from 1 to 36 months. Efficacy at three months of follow-up (estimated as the posterior median) ranged from 87.5% for the levonorgestrel-releasing intruterine system ( LNG-IUS) to 14.2% for proges-
togens administered for less than two weeks out of four in the menstrual cycle. The 95% credible intervals for most estimates were quite wide, mainly because of the limited evidence for many combinations of treatment class and follow-up time and thus substantial uncertainty.**

**OBJECTIVES:** To test the efficacy of a sildenafil (50 mg) and apomorphine (3 mg) sublingual combination in treating male Erectile Dysfunction (ED) in comparison to sublingual sildenafil (50 mg) that shows an increasing number of non-responders.

**METHODS:** In all, 50 eligible ED patients were enrolled into a prospective single-blinded crossover study with two treatment periods, each of 4 weeks, separated by a 2-week washout period. A randomization list in blocks in closed packets was used to randomize the patients to receive sildenafil then the combination or the combi-
nation then sildenafil. The primary efficacy endpoint was the percent of attempts resulting in erection firm enough for intercourse. Other efficacy endpoints included the percent of attempts resulting in successful intercourse, change in the score of the 5-Item version of the International Index of Erectile Function (IIEF-5) from baseline, response to Sexual Encounter Profile (SEP) diary questions 2 and 3, and patient’s preference (of the two study interventions, which one did you prefer?).

**RESULTS:** Only 43 patients completed the whole schedule and had results evaluable for the study. Sildenafil - apomorphine combination had a significantly higher estimate than sildenafil in regard to the mean percent of attempts resulting in erection firm enough for intercourse (77.6% vs. 63.1%, p < 0.001) and resulting in successful intercourse (51.1% vs. 34%, p < 0.001), as well as erectile function as evaluated by the change in the median IIEF-5 score from baseline (18 vs. 15 with baseline of 7, P = 0.001). Also, the proportion of affirmative answers regarding the SEP diary was significantly higher after the combination (question 2: 79.1% vs. 55.8%, P = 0.01 and question 3: 65.1% vs. 44.2%, P = 0.03). At the end of the study, patient’s preference was 88.4% for the combination and 4.6% for sildenafil.

**CONCLUSIONS:** Sildenafil - apomorphine sublingual combination was significantly more effective than sublingual sildenafil in treating ED.

**PH5**

**SYSTEMATIC REVIEW COMPARING THE EFFICACY OF THE 5-ALPHA REDUCTASE INHIBITORS (5-AI) DUTASTERIDE AND FINASTERIDE IN THE TREATMENT OF BENIGN PROSTATIC HYPERPLASIA (BPH)**

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**OBJECTIVES:** To review the literature for evidence on the efficacy of 5-alpha reductase inhibitors (5-AIs), dutasteride and finasteride as effective treatments. If untreated, BPH may lead to complications such as acute urinary retention (AUR) and the need for surgery (2). This systematic review aims to compare the efficacy of dutasteride and finasteride in reducing episodes of AUR and the NIS related to BPH.

**METHODS:** MEDLINE, Lilacs and the Cochrane Central Register of Controlled Trials were searched (from inception to September 2011) to retrieve randomized clinical trials (RCTs) and observational studies evaluating these drugs. The search included ar-
ticles published in English, Portuguese, and Spanish. Patients with confirmed di-
agnosis of BPH were included. We analyzed data from studies that reported the number of AUR or NIS following treatment with dutasteride or finasteride.

**RESULTS:** The literature search identified 24 potential full-text publications; 9 RCTs (where 9 were duplicates) and 6 observational/ retrospective studies. No RCT head-
to-head comparison was found. Indirect efficacy comparison between the two 5-AIs, based on RCTs, was deemed inappropriate due to the heterogeneity of the patient populations included in the trials, differences in outcome measurements, study design, and combination therapies (i.e., alpha blockers) used in the studies. Direct compari-
son of dutasteride and finasteride was available from 3 retrospective cohort studies, indicating that dutasteride may be more effective in reducing the episodes of AUR (Hai T). Ratio — 0.68-0.93; 95% CI: 0.61-0.98, p < 0.03) relative to finasteride. The current evidence on the efficacy of dutasteride and finasteride makes an indirect comparison between the two 5-AIs difficult; however, data retrieved from observational stud-
ies indicate improved clinical performance of dutasteride compared to finasteride.

**CONCLUSIONS:**

**PH6**

**ANTIACYPYTIC USE AND RISK OF NURSING HOME ADMISSION AMONG COMMUNITY-DWELLING DUAL ELIGIBLE BENEFICIARIES**

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**OBJECTIVES:** Antipsychotic agents are often used for behavioral symptoms of de-
mentia and psychoses. This study evaluated the risk of nursing home admission associated with use of antipsychotics among community-dwelling (Medicare and Medicaid) dual eligible beneficiaries in the United States.

**METHODS:** The study involved a retrospective cohort design matched on propensity score using Medicare and Medicaid Analytical eXtract (MAX) data from four US states. About 5-12% of all pregnancies in western countries result in preterm birth. Preterm born infants may be at increased risk of adverse outcomes. This study compared the risk of all-cause hospitalization among dual eligible beneficiaries 65 years or older using antipsychotics. The study involved using Medicare and Medicaid Analytical eXtract (MAX) data from four US states. New antipsychotic users were followed for up to six months without any censoring. The risk of hospitalization was modeled using a proportional model for postpartum patients and Cox hazard model stratified on matched pairs based on propensity score.

**RESULTS:** Analysis of Medicare-Medi-
care dual eligible data revealed that, there were 1, 43, 617 new antipsychotic (91, 665 atypical and 51, 952 typical) users in the unmatched cohort and 84, 162 (42, 081 atypical and 42, 081 typical) users in the matched cohort. The unadjusted rates of hospitalization were 27.17% and 27.96% among atypical and typical users respec-
tively. Cox hazards regression found that, users of typical antipsychotics were marginally at a higher average risk of hospitalization compared to atypical users [Hazard Ratio, (HR), 1.07, 95% Confidence Interval, (CI), 1.04-1.10]. Results of ex-
tended Cox regression suggest that, typical users had a higher risk of hospitaliza-
tion than atypical users within the initial 40 days of therapy [HR, 1.26, 95% CI, 1.21-1.31]. However, the risk of hospitalization decreased with prolonged typical use [HR, 0.90, 95% CI, 0.86-0.94].

**CONCLUSIONS:** Overall, typical antipsychotic us-
ers were more likely to experience all-cause hospitalization than atypical users possibly due to differential safety profiles of antipsychotics. More research is needed to evaluate specific reasons for the health care impact of antipsychotic use in the elderly population.

**PH7**

**MEDICATION USE AND HOSPITAL ADMISSION RATES AMONG PRETERM BORN INFANTS COMPARED TO FULL TERM BORN INFANTS**

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**OBJECTIVES:** About 5-12% of all pregnancies in western countries result in preterm birth. Preterm born infants may be at increased risk of adverse outcomes. This study compared hospitalization and medication use in the first year of life between preterm and full term born infants. METHODS: Data for this study were obtained from linking the PHARMO database network (including detailed information on drug dispensing and hospitalization histories) with The Netherlands Perinatal Medical Reg-
istry (including perinatal medical case records). From this linked cohort, all pre-
term born infants (gestational age <37 weeks) between 2004-2007 were randomly matched to 4 full term born infants on gender, month and year of birth. All infants were followed from birth until end of data collection in PHARMO or their first birthday, whichever occurred first. During follow-up, hospitalization and medica-
tion use was assessed. Cox proportional hazard regression models were used to estimate the relative risk of hospitalization/medication use among preterm com-
pared to full term infants. Population attributable risk percentages (PAR%) were calcu-
lated to estimate the proportion of hospitalization/medication use attributable to preterm birth. 85,707 data cells cell were included. In 2007, 4,277 (6%) were born preterm of which 90% were hospitalized at birth, compared to 55% of the full term infants. Premature infants were twice more likely to be re-hospital-
ized (RR 2.0, 95%CI 1.9-2.2), specifically for respiratory related diseases. Prematurity accounted for 6% of respiratory re-admissions. Between the age of 6-12 months, the most frequently used outpatient drugs were antibiotics and drugs for obstruc-
tive airway diseases. Premature infants were 50% more likely to receive respiratory