service evaluation of patients undergoing TAVI or AVR between January 2011 and May 2012 captured data until 6-months post-procedure, collected from hospital records and via a General Practitioner questionnaire. The main endpoints were mortality, hospital length of stay (LoS), discharge destination, readmission and post-discharge resource use. Subgroup analyses were performed for AVR patients aged ≥80 (AVR≥80) and with Euroscore of ≥10 (AVR≥10). **RESULTS:** Results given as means (standard deviation) for TAVI (n=51), AVR (n=188), AVR≥80 (n=48) and AVR≥10 (n=47) respectively, unless otherwise stated. Age in years was 83 (3.06), 71 (13.11), 84 (2.72), 79 (7.12), Logistic Euroscore1 was 24.74 (11.90), 8.07 (6.44), 12.01 (6.04), 16.45 (6.58) and post-operative LoS in days was 11.51 (11.16), 10.88 (10.82), 14.31 (16.66), 15.19 (17.67). For patients discharged alive, 0 of 48 (0%), 13 of 180 (7%), 6 of 46 (13%) and 4 of 44 (9%), had an unplanned cardiac-related readmission within 30-days of discharge. Time to readmission was 74.6 (52.9), 31.1 (37.2), 15.4 (10.5) and 16.7 (12.8) days. **CONCLUSIONS:** Despite TAVI being performed in an older, higher risk population the LoS is similar to AVR. Most strikingly there were no cardiac-related readmissions within 30-days for TAVI and time to first readmission was significantly longer. This evaluation suggests that TAVI is clinically appropriate and provides economic advantages in both the hospital and post discharge setting in this high risk group. Many patients undergoing TAVI are considered unfit for surgery and hence TAVI offers a treatment that delivers similar results to traditional AVR surgery without the high risk associated with surgery.

CARDIOVASCULAR DISORDERS – Patient-Reported Outcomes & Patient Preference Studies

PCV116
PERSISTENCE WITH MEDICATIONS: A DISCRETE CHOICE EXPERIMENT OF PREFERENCES AMONG HYPERTENSIVE PATIENTS

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OBJECTIVES: To examine patients' stated preferences for persisting with medications using a discrete choice experiment (DCE) and to explore the relationship with clinical, demographic and psycho-social variables. **METHODS:** A 4-attribute DCE (mild side-effects, potentially life-threatening but rare side-effects, dose frequency, treatment benefits) with 3-levels identified from literature and expert opinion was developed using a fractional factorial design. Scenarios were folded into nine forced binary choices: Which medicine would you be most likely to continue taking? The survey was translated, piloted and approved for eleven European countries. Target sample was 100≤n≤323 patients prescribed anti-hypertensives per country, recruited by posters in community pharmacies or general practices. Results were analysed in STATA using a random effects logit model. **RESULTS:** A total of 2856 patients from Austria (n=323), Belgium (n=180), England (n=323), Germany (n=265), Greece (n=289), Hungary (n=323), The Netherlands (n=237), Poland (n=323) and Wales (n=323) completed the online questionnaire. All four attributes influenced persistence with treatment (p<0.01). Patients were willing to forego chance of improvements in treatment benefits (%) in order to improve other attributes: -36.10% (95% CI: -41.24 to -32.94) for a very rare risk of life-threatening side-effects; -18.66% (95% CI: -21.51 to -16.67) for once daily dose frequency; -0.74% (95% CI: -0.85 to -0.67) to reduce the risk of mild ADR by 1%. Likelihood ratio tests showed that models controlling for clinical, demographic and psycho-social variables were significantly different from the base-case. There was limited evidence that self-reported adherence influenced stated preferences to persist. **CONCLUSIONS:** Patients were willing to trade potential benefits, harms, and convenience in responding that they would persist with treatment. Clinical, demographic and psycho-social factors influence the extent of the trade-offs between these attributes. Persistence may therefore be enhanced directly, through selection of medicines meeting preferred levels of attributes, or indirectly through targeting modifiable psycho-social factors that affect trade-off choices.

PCV117
ILLUSTRATION OF THE COMBINED EFFECT OF PATIENT'S ADHERENCE AND INDIVIDUAL BIOLOGICAL CHARACTERISTICS ON BLOOD PRESSURE

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OBJECTIVES: With the recognition that adherence is commonly imperfect, even with once daily regimen, 'forgiveness' is becoming acknowledged as an important characteristic in predicting real-world effectiveness. Forgiveness is typically reported as a group average value, ignoring person-to-person variability. Here we illustrate an alternative way of estimating and presenting information on drug forgiveness which allows the estimation of the combined effect of imperfect adherence and variable forgiveness. **METHODS:** Adherence data from 4783 patients with hypertension were used in these simulations. A projected dosing history over 365 days was obtained from each of these individual adherence profiles. Longitudinal clinic systolic blood pressure (SBP) collected from 4879 patients after drug withdrawal were analysed using non linear mixed effect models, allowing the estimation of the between-patient variability in the loss of effect (the 'offset'). Projected SBP profiles were obtained by combining each dosing history with 100 offset curves randomly sampled from the variance-covariance matrix estimated in the previous step. Re-samplings were performed in the resulting dataset using two adherence distributions described in the literature to estimate the proportion of time patients who achieved the maximal effect on SBP over a treatment period of 365 days. **RESULTS:** In the first population, 90% of the patients achieved the maximal effect during 95% of the time, whereas, in the population presenting a lower adherence, about 80 % maintained the maximal effect during 95% of the time. **CONCLUSIONS:** The impact imperfect adherence on response is mitigated by drug forgiveness. This methodology reveals the person-to-person variability in clinical effectiveness which is hidden when forgiveness is considered as a group-average quantity, and shows that the agent studied provides a reliable clinical effectiveness despite imperfect adherence. Ultimately, this approach could be used to compare drugs with different levels of forgiveness and/or regimens in the presence of non-adherence.

PCV118
TWO SIMPLE METHODS OF MEASURING ADHERENCE IN HYPERTENSIVE PATIENTS ARE PREDICTIVE OF BLOOD PRESSURE CONTROL: POOLED ANALYSIS OF 17,516 PATIENTS FROM SEVEN VALSARTAN STUDIES

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OBJECTIVES: Hypertension is a common chronic disease and risk factor for many other conditions. Despite effective treatments, few patients achieve recommended blood pressure targets. Among the variables related with poor antihypertensive outcomes, patient adherence appears to be especially influential. Adherence assessment should fit seamlessly into the clinical encounter, which requires simple methods. We evaluated whether adherence assessments through a single-item query and a visual analogue scale (VAS) are independent predictors of controlled systolic (SBP), diastolic (DBP), and combined systolic/diastolic (SBP/DBP) blood pressure (BP). **METHODS:** Pooled analysis of 17,516 patients treated with valsartan as second-line therapy from seven Belgian studies. Adherence was assessed at baseline and 90 days using two methods: a single query derived from the Basel Assessment of Adherence Scale ("Do you recall not having taken your medication sometime in the past four weeks?") and a physician-rated VAS (0-100 range). Logistic regression was used to model BP control as a function of these two measures. Controlled BP was defined as <140mm/90mmHg (<130/80mmHg for diabetics). **RESULTS:** BP control rates at 90 days were 39.3% for SBP, 59.4% for DBP, and 33.8% for SBP/DBP. 79% of patients identified as adherent under the single query reached BP control, with odds ratios of 0.66 (95%CI=0.62-0.71, p<0.001) for SBP, 0.68 (95%CI=0.63-0.73, p<0.001) for DBP, and 0.64 (95%CI=0.59-0.70, p<0.001) for SBP/DBP. Of those patients with a physician-rated VAS adherence score of 80 or more, 81% reached BP control, with odds ratios of 0.93 (95%CI=0.86-1.00, p<0.001) for SBP, 0.79 (95%CI=0.73-0.85, p<0.001) for DBP, and 0.91 (95%CI=0.84-0.99, p<0.001) for SBP/DBP. **CONCLUSIONS:** The two simple methods of measuring adherence, the single query and VAS, are independent predictors of blood pressure control. These measures can be integrated seamlessly into routine clinical practice. These findings must be validated in other health conditions and therapeutic areas.

PCV119
VALIDITY OF SELF-REPORTED DOSE OF PATIENTS USING WAFARIN IN CLINICAL PRACTICE

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OBJECTIVES: Warfarin is an oral anticoagulant used for the prevention of thrombosis, and many adjustments are needed to achieve a therapeutic INR. The dose of warfarin is important to establish an association between clinical and safety outcomes and the exposure. To evaluate the validity of the weekly dose of warfarin as reported by the patient compared to the weekly prescribed dose. **METHODS:** This study was based on an ongoing prospective cohort of new warfarin-users to assess the genetic and clinical risks associated with the effectiveness and safety of warfarin. Demographic and clinical data were collected from 219 patients who began the treatment between May 1st, 2010 and Oct. 31st, 2011 at the Montreal Heart Institute. They were followed-up each three months for a year. The primary outcome is the concordance between the reported and prescribed weekly dose of warfarin. The secondary outcome is the difference between the means of reported and prescribed warfarin weekly doses. A t-test and a Pearson correlation are used for the secondary outcome and a generalized mixed linear model with repeated measures is used for the primary outcome. **RESULTS:** Patients had a mean age of 67.7, 58.9% were men and 70.3% had atrial fibrillation. No significant difference between the means of reported and prescribed warfarin weekly dose (Pearson coefficient = 0.969). However, we observed that the correlation was weak at 3 months for patients in the low dose group and in the high dose group (Pearson coefficient = 0.806 and 0.829, respectively). Mixed linear model analysis detected no association between the covariates and the concordance. **CONCLUSIONS:** This study demonstrates that the weekly reported dose correlates well with the prescribed dose patients in a prospective cohort study. Furthermore, the effect was similar whether measured in new-onset users of warfarin and up to 12 months of use.

PCV120
EFFECTS OF THE OCCURRENCE OF A FIRST CARDIOVASCULAR EVENT ON STATIN ADHERENCE IN TYPE 2 DIABETES: A MATCHED COHORT DESIGN

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OBJECTIVES: Adherence to statin therapy is important for an effective reduction in cardiovascular events. We aimed to assess the effect of the occurrence of a first cardiovascular event on adherence rates in type 2 diabetes patients using a matched cohort design. **METHODS:** A matched cohort study was performed within the IADB. nl pharmacy database among type 2 diabetes patients, who initiated statin treatment for primary prevention. Index patients experienced a first event (index date) after initiation whereas reference patients did not. Index and reference patients were matched on gender, age at statin initiation, statin initiation date, adherence level before the index date and follow-up period. Adherence was measured as percentages of days covered and classified into: non-adherent, partial-adherent or full-adherent. Adherence rates were measured from statin initiation until the index date, and from the index date until end of follow-up, for reference patients in both cases the same follow-up period was used. Mean adherence rates between index and reference before and after were compared by the use of an independent samples