COST-EFFECTIVENESS OF A NEW ANTITHROMBOTIC AGENT: A COMPARISON ACROSS COUNTRIES OF THROMBOPROPHYLAXIS WITH FONDAPARINUX FOLLOWING MAJOR ORTHOPAEDIC SURGERY

Minjoulat-Rey MC1, Carita P1, Annemans L2, Badia X3, Bossuyt PM4, Posnett J5, Gabriel S1
1Sanofi Synthelabo Recherche, Bagneux, France; 2Ghent University, HEDM, Meise, Belgium; 3Health Outcome Research Europe, Barcelona, Spain; 4University of Amsterdam, Amsterdam, Netherlands; 5University of York, York, England

OBJECTIVES: Fondaparinux, a new synthetic selective factor XA inhibitor was recently introduced into the market. This may have widespread implications for Health care providers that are expected to vary across countries. We evaluated the cost-effectiveness of fondaparinux relative to enoxaparin up to 5-years in the pre-market. This may have widespread implications for outcomes and cost impact within the cardiac catheterization lab. METHODS: Demographic, clinical and angiographic data were collected retrospectively on all patients who underwent DES implantation between October 15, 2002 and April 15, 2003. Cost data, specifically stent costs, were collected concurrently. RESULTS: A cohort of 46 patients was treated with DES, involving 52 vessels and utilizing 62 stents (56 Cypher, 6 Taxus). Indications for coronary intervention were stable angina (67.2%) and ACS/post MI (32.6%). Indications for DES use included clinical reasons such as diabetes mellitus (15.2%), prior bypass surgery (19.6%) and renal insufficiency (8.7%). Angiographic indications included: stenosis length >18 mm (43.4%), vessel diameter <2.5 mm (32.6%), patients with multivessel disease (21.7%) and instent restenosis (8.7%). Short-term clinical complications included death but no strokes or myocardial infarctions. The procedural success was 95.8% (44/46), and the clinical success was 92.5% (43/46). The average number of DES per patient was 1.35. During the same time period, 351 patients were treated with CS, utilizing 522 stents. The average number of stents per patient was 1.48. The total hospital-incurred DES cost was $227,500 for an average stent cost $4945.65 per patient. In the CS group the total cost for stents was $496,050 for an average cost of $1413.25 per patient. The average stent cost per patient was 3.5 times higher in the DES group than with CS. CONCLUSIONS: 1) Indications for DES use are consistent with individuals at higher risk for restenosis; 2) the procedural costs for treating these individuals are significantly greater; and 3) full 6 month outcomes and cost data will be available for presentation.

ADHERENCE/COMPLIANCE

LOWER PERSISTENCE WITH ANTIHYPERTENSIVE DRUGS AMONG WOMEN COMPARED TO MEN

Erkens JA1, Panneeman MJ1, Klungel OH2, van den Boom G3, Herings RMC4
1PHARMO Institute, Utrecht, Netherlands; 2Utrecht Institute of Pharmaceutical Sciences, Utrecht, Netherlands; 3Novartis Pharma, Arnhem, Netherlands

Drug-eluting stents (DES) have been shown to reduce the risk of restenosis post coronary intervention compared with conventional stents (CS). However, the cost of DES is significantly higher than CS. OBJECTIVE: To evaluate the utilization of DES along with clinical indications, outcomes and cost impact within the cardiac catheterization lab. METHODS: Demographic, clinical and angiographic data were collected retrospectively on all patients who underwent DES implantation between October 15, 2002 and April 15, 2003. Cost data, specifically stent costs, were collected concurrently. RESULTS: A cohort of 46 patients was treated with DES, involving 52 vessels and utilizing 62 stents (56 Cypher, 6 Taxus). Indications for coronary intervention were stable angina (67.2%) and ACS/post MI (32.6%). Indications for DES use included clinical reasons such as diabetes mellitus (15.2%), prior bypass surgery (19.6%) and renal insufficiency (8.7%). Angiographic indications included: stenosis length >18 mm (43.4%), vessel diameter <2.5 mm (32.6%), patients with multivessel disease (21.7%) and instent restenosis (8.7%). Short-term clinical complications included death but no strokes or myocardial infarctions. The procedural success was 95.8% (44/46), and the clinical success was 92.5% (43/46). The average number of DES per patient was 1.35. During the same time period, 351 patients were treated with CS, utilizing 522 stents. The average number of stents per patient was 1.48. The total hospital-incurred DES cost was $227,500 for an average stent cost $4945.65 per patient. In the CS group the total cost for stents was $496,050 for an average cost of $1413.25 per patient. The average stent cost per patient was 3.5 times higher in the DES group than with CS. CONCLUSIONS: 1) Indications for DES use are consistent with individuals at higher risk for restenosis; 2) the procedural costs for treating these individuals are significantly greater; and 3) full 6 month outcomes and cost data will be available for presentation.

ADHERENCE/COMPLIANCE
OBJECTIVE: The aim of the study was to investigate gender differences in persistence with antihypertensive drugs (AHT). METHODS: Data for this study were obtained from the PHARMO system including pharmacy records and hospitalisations in the Netherlands (n = 950,000). Patients between 1997–2001 who newly received monotherapy of AHTs were selected. One-year persistence was defined as the percentage of patients using AHTs at least 270 days and receiving AHT in 3 months after the 1-year follow-up period. Persistence was presented as 1-year persistence (95% CI). Odds ratios (OR) were calculated with logistic regression and adjusted for age, use of antidiabetics and lipid lowering drugs, and prior cardiovascular hospitalizations. RESULTS: In the period 1997–2001, 17,113 patients newly received at least one AHT prescription with a follow-up >15 months. Of these patients, random samples of 500 patients per drug class were drawn. Persistence was highest in angiotensin II receptor blockers (ARBs) (62.1%), progressively lower in ACE-inhibitors (60.2%), betablockers (35.5%), calcium channel blockers (34.7%), and diuretics (33.0%), resulting in the highest OR of 3.3 [95% CI: 2.5–4.4] for ARBs compared to diuretics. The persistence of AHT use in women is substantially lower than in men (40.4% versus 50.3%, OR 0.7 [95% CI: 0.6–0.8]). CONCLUSIONS: These results demonstrate marked differences in persistence between AHT classes, with the highest persistence for ARBs and lowest for diuretics. Women were less persistent with their AHT compared to men. This low persistence leads to suboptimal treatment with substantial consequences. Especially in women, more improvement can be gained to improve their cardiovascular outcome.

DETERMINANTS OF NON ADHERENCE TO ANTIHYPERTENSIVE DRUG TREATMENT

Moisan J1, Grégoire J2, Guibert R3, Ciampi A4, Milot A1
1Université Laval, Québec, QC, Canada; 2Merck Frosst Canada Ltd, Kirkland, QC, Canada; 3Mornigon Peninsular Division of General Practice, Mount Martha, Victoria, Australia; 4McGill University, Montréal, QC, Canada

OBJECTIVES: In a previous study, we have identified side effects and lack of drug insurance coverage as the determinants of discontinuation in a group of patients newly prescribed antihypertensive medications. The current study aimed at identifying the determinants of non adherence to medication among those who had not discontinued. METHODS: We conducted a prospective cohort study in which individuals prescribed a new antihypertensive monotherapy were identified through a network of 173 pharmacies. We interviewed participants by telephone three times over a 3-month period. At the end of this period, those individuals which reported still taking the medication initially prescribed, were included in the analysis. Self-reported non adherence was measured at three month using the Morisky’s 4-item questionnaire. Those answering yes to any one of the 4 questions were deemed to be non adherent. We analyzed data using a multivariable logistic regression model. RESULTS: Of 509 eligible participants, 118 (23.2%) reported non adherence to their drug treatment. Non adherence was significantly associated with the use of angiotensine converting enzyme inhibitors (Adjusted Odds Ratio (AOR) = 3.0; 95% CI 1.2–7.9) as compared to angiotensin II antagonist losartan, and the belief that hypertension is not a risk factor for cardiovascular diseases (AOR = 2.0; 95% CI 1.2–3.3). On the other hand, non adherence was inversely associated with the use of more than 4 pills of medication a day (AOR = 0.3; 95% CI 0.2–0.6). CONCLUSIONS: Our findings suggest that determinants of non adherence are not the same as those for discontinuation. They also suggest that adherence to drug treatment could be improved by a proper selection of medication, and by attempts to correct wrong perceptions patients may have about hypertension. Our finding that taking more than four pills was associated with better adherence is concordant with data recently published by others.