

54% and Germany 45%). An overall increase in co-prescribing of clopidogrel and PPIs was observed in all countries from April 2006 to April 2009 except for France where omeprazole co-prescribing decreased in 2008–2009. The most frequently prescribed PPI in combination with clopidogrel was omeprazole in all three countries (58% in the UK, 36% in France and 65% in Germany). The second most frequently used PPI was lansoprazole in the UK (36%), pantoprazole in Germany (21%) and esomeprazole in France (28%). The proportion of clopidogrel patients who were co-prescribed lansoprazole was 36% in the UK and only 11% in France and 2% in Germany. **CONCLUSIONS:** Overall prescribing of PPIs with clopidogrel after ACS is common in the UK, France and Germany. Since the publication of the OCLA study in 2008 no decrease in concurrent prescribing of clopidogrel and omeprazole was observed except in France. Revisions of national guidelines and the clopidogrel label in 2009 may further affect prescribing of PPIs, and especially omeprazole, with clopidogrel in the future.

#### INCREASING NURSE STAFFING LEVELS IN BELGIAN CARDIAC SURGERY CENTERS: A COST-EFFECTIVE PATIENT SAFETY INTERVENTION?

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**OBJECTIVES:** A previous study indicated that increasing nurse staffing levels in Belgian general cardiac postoperative nursing units was associated with lower mortality rates. The aim of this study is to conduct a cost-effectiveness analysis of increasing nurse staffing levels to the level of the 75<sup>th</sup> percentile in Belgian general cardiac postoperative nursing units from a hospital perspective. **METHODS:** The intervention was an increase in the number of nursing hours per patient day to the 75<sup>th</sup> percentile for nursing units staffed below that level. The comparator was a “do nothing” alternative. Data on nurse staffing levels were extracted from the Belgian Nursing Minimum Data set and data on in-hospital mortality from the Belgian Hospital Discharge Database. The number of life-years gained was calculated by multiplying the number of avoided deaths by the life expectancy of patients having a coronary artery bypass graft and patients having heart valve procedures. To this effect, survival rates were derived from the literature. National cost estimates for the year 2007 were used. Results were expressed in the form of the additional costs per avoided death and the additional costs per life-year gained. **RESULTS:** The costs of increasing nurse staffing levels to the 75<sup>th</sup> percentile in Belgian general cardiac postoperative nursing units amounted to €1,211,022. Such nurse staffing levels would avoid an estimated number of 45.9 (95% CI: 22.0–69.4) patient deaths per year and generate 458.86 (95% CI: 219.93–693.79) life-years gained annually. This corresponds with incremental cost-effectiveness ratios of €26,372 per avoided death and €2,639 per life-year gained. Sensitivity analyses indicated that the incremental cost-effectiveness ratio was robust to changes in input parameters. **CONCLUSIONS:** Increasing nurse staffing levels appears to be a cost-effective intervention as compared to other cardiovascular interventions.

#### MODELING OF HEALTH SERVICE RESEARCH RESULTS WITH UPDATED COST DATA—THE GERSHWIN STUDY EXAMPLE

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**OBJECTIVES:** Health services research is an expanding field of interest for recently introduced medical technologies. Complementing efficacy results with effectiveness data illustrates the clinical contribution of a new technology in the real-life setting. With effectiveness results being relatively stable over time, the change in reimbursement and price decreases have a substantial impact on initial cost-effectiveness considerations. The three-year GERSHWIN study (GERman Stent Health outcomes Within Normal practice) was designed to determine long-term clinical outcome and economic consequences of Sirolimus-eluting stents (SES) versus bare-metal stents BMS in the treatment of CAD from a societal perspective. Economic analysis resulted in an ICER of €29,868 per avoided major adverse coronary events (MACE) based on 2003 to 2005 prices. Due to substantial price reductions, a remodelling with current prices would increase applicability of results by decision-makers. **METHODS:** Complete intention-to-treat study data were valued and analyzed with 2009 prices for the main cost drivers (hospital case rate, incremental stent cost and generic clopidogrel price). Sensitivity analyses were conducted to evaluate the robustness of the results and included a low- and high-cost scenario. **RESULTS:** Initial hospitalization costs were €1157 higher per patient receiving SES, driven primarily by the incremental acquisition cost for SES compared BMS. Follow-up direct costs were similar in both groups of patients, however the indirect costs in SES patients were significantly lower. Overall 36-month MACE-related costs were €283 not significantly higher in the SES group ( $p = 0.62$ ). The ICER based on 2009 cost data resulted in €5320 per MACE avoided. Variation of incremental SES prices between €650 and €750 showed no significant impact. **CONCLUSIONS:** Incorporating updated cost data can drastically change the ICER generated from health services research projects. Modelling with current cost data is an essential contribution for iterative cost-benefit assessment procedures.

#### TELEHEALTH—EARLY EVALUATION FINDINGS

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**OBJECTIVES:** NHS North Yorkshire and York commissioned York Health Economics Consortium to carry out an evaluation of their recent Telehealth pilot involving patients with long-term conditions. The findings from the evaluation will be used to inform plans for the further rollout of Telehealth in North Yorkshire. **METHODS:** Three approaches were employed: a questionnaire was used to obtain details about the Telehealth experiences of users and their carers; Case Managers and Community Matrons with Telehealth patients on their caseloads were interviewed about referral criteria and the impact of Telehealth on their role and patient care; Health care resource use data were analyzed. Some caution should be used when generalizing findings due to the small sample size and the specific characteristics of pilot Telehealth recipients. **RESULTS:** Forty-eight questionnaires were handed out and twenty returned (42%). Overall, respondents were happy with Telehealth (90%). Results showed that the installation process had been smooth (75%); individuals had received sufficient tuition (95%); they were confident using the equipment (95%); and were happy with the service received from the monitoring centre (95%). Telehealth gave users peace of mind and helped them to manage their own health condition. However, a number of users had experienced technical issues (during installation and when taking daily measurements). Although there had been some teething problems, mainly in relation to the installation process and the monitoring system, clinicians were broadly supportive of Telehealth. There was a repeated view that individual patient characteristics needed to be taken into account when identifying patients who would benefit from Telehealth. The impact of Telehealth on health care resource use was difficult to determine within the eight month timescale of the pilot. **CONCLUSIONS:** Telehealth gives users peace of mind and helps them manage their health; however, its impact on health care resource use is still unclear.

#### PRACTICE PATTERNS AND QUALITY OF LIFE IN ACUTE CORONARY SYNDROME PATIENTS IN 2008–2009: BASELINE RESULTS FOR AUSTRIA FROM THE ANTIPLATELET TREATMENT OBSERVATIONAL REGISTRY II (APTOR II)

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**OBJECTIVES:** This analysis aims to explore management of acute coronary syndromes (ACS) from acute event to hospital discharge in Austria, and to measure Quality of Life (QoL) at discharge. **METHODS:** This 12-month international, prospective, observational study recruited ACS patients in selected hospitals undergoing percutaneous coronary intervention (PCI), April 2008–March 2009, capturing practice patterns, resource use and QoL. **RESULTS:** A total of 148 ACS-PCI patients (out of the 152 recruited) were eligible: median age 60 yrs (IQR 51–69), median weight 80 kg (IQR 70–89), 20% female, 28% Type II diabetics, and 17% prior myocardial infarction (MI). Index diagnosis was: unstable angina or non-ST-elevation MI (UA/NSTEMI)-44% and ST-elevation MI (STEMI)-56%. Almost all patients (96%) received stents: 28% bare metal stents only, 70% drug eluting stents only and 2% both. Time from start of ACS symptoms to PCI was ≤3 days in 86% of UA/NSTEMI patients and ≤1 day in 98% of STEMI patients. Oral antiplatelet medications with loading dose (LD) used: aspirin-97% and clopidogrel-91%. Clopidogrel LD was administered in the ambulance-9%, previous hospital-10%, emergency room-41%, CCU or ICU-31%, catheterization lab-5%, or other ward-5%. LD was administered between 6 hours before to 6 hours after PCI in 82% of cases. The first clopidogrel LD was 600 mg in 85% and 300 mg in 10% of cases and in-hospital maintenance dose was 75 mg in 97%. At time of hospital discharge, 97% of the discharged patients were prescribed clopidogrel (discharge dose 75 mg for all patients except one). QoL in discharged patients was good: median EQ-5D health state index at 1.00 (IQR 0.81–1.00). **CONCLUSIONS:** These real life data reflect treatment patterns among ACS patients managed by PCI in selected hospitals in Austria in 2008–2009. Timing and place of loading of antiplatelet agents differ. The QoL of patients at discharge was high.

#### AN INTERNATIONAL COMPARISON OF DUAL ANTIPLATELET USE BY STENT TYPE AT 6 MONTHS FOLLOWING HOSPITAL DISCHARGE AFTER ACUTE CORONARY SYNDROME: RESULTS FROM THE ANTIPLATELET TREATMENT OBSERVATIONAL REGISTRY II (APTOR-II)

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**OBJECTIVES:** Current European Society of Cardiology Guidelines recommend dual antiplatelet therapy for 12 months for patients with acute coronary syndrome (ACS); however, reimbursement for antiplatelet therapy differs by EU country and is dependent upon the use of bare metal (BMS) or drug-eluting (DES) stents during percutaneous coronary intervention (PCI). Dual antiplatelet (clopidogrel + aspirin) treatment

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