in Greece a substantial increase of the households with at least one chronic condition patient which are subjected to CHE is recorded. There is a need for counter measures or/and an alternative policy context in order to reduce this catastrophic effect of economic crisis.

PCV167

SNAPSHOT OF PRESCRIBING PRACTICE FOR CLOPIDOGREL AND ESOMEPRAZOLE CO-PRESCRIPTION AND COST EVALUATION OF GUIDELINES APPLICATION

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**OBJECTIVES:** Through CYP2C19, the antiplatelet clopidogrel and the proton-pump inhibitor esomeprazole demonstrate a pharmacokinetic interaction that could translate into clinical inefficacy of clopidogrel. No medical consensus has been reached to date and therefore different guidelines are available. We aimed to evaluate the prescribing practices in the University Hospitals of Geneva (HUG) by measuring if the co-prescription was staggered as suggested by experts. We also measured the Omeprazole-CLopidogrel-Aspirin (OCLA) study impact on clopidogrel use in our hospital. **METHODS:** Patient's medical orders and nurse's drug administration planning's were analysed from January 2013 to April 2014 and the hospital pharmacy database from January 2000 to April 2014. To measure the "extra costs" of the implementation of different guidelines we built scenarios assuming the clopidogrel or esomeprazole replacement with prasugrel or ticagrelor and pantozole or ranitidine, respectively. **RESULTS:** Fifty seven percent of patients under clopidogrel had a co-prescription of esomeprazole during the study period. Among them 15% (154/1'000) had a medical order staggering the co-prescription (more than 10 hours apart), 16% a concomitant prescription and 64% no clear information. Five percent had 40 mg esomeprazole twice daily, hindering the possibility of staggering. Surprisingly we found a higher rate of patients having a nurse's schedule of more than 10 hours (39%, 417/1'071). Switching drugs would lead to increased costs for HUG of €38'210 for prasugrel, €34'800 for ticagrelor, €9'590 for pantoprazole and €5'205 for ranitidine. A statistical significant decrease in trend of clopidogrel use was observed after the OCLA study publication. **CONCLUSIONS:** The medical order's information time frame should be mandatory in order to improve the transmission throughout the whole information system and allow a clear staggering of clopidogrel-esomperazole co-prescription avoiding drug-drug interactions when possible. Nurses take the initiative to stagger the co-prescription when these are not clearly defined by medical orders.

PCV168

REGIONAL VARIATION IN HOSPITAL MORTALITY, LENGTH OF STAY AND COST OF ISCHEMIC STROKE PATIENTS IN ALBERTA

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**OBJECTIVES:** This study compares the outcome and health care performance among five health zones in Alberta by evaluating 30 days in-hospital mortality and length of stay (LOS) in patients with acute ischemic stroke, and total hospitalization costs over one year. **METHODS:** Ischemic stroke (ICD-10 code I63) patients (without previous stroke within one year, N=1,445) hospitalized between April 1, 2007 and March 31, 2008 were followed for one year using hospital Discharge Abstract Database. The severity of the stroke was obtained from the ambulatory care database (NACRs). Median hospital costs by CMG+ group were obtained from Alberta Health. Logistic regression was used to analyse in-hospital mortality; negative binomial regression assessed LOS, and generalized gamma model (log link) for hospital costs. The risk-adjusted outputs were estimated adjusting for sex, all disease-specific co-morbidities, and stroke severity. We calculated observed/expected results for five zones; South, Calgary, Central, Edmonton, and North Zones. **RESULTS:** The risk-adjusted 30-days-mortality rates (95% CI) varied from 7.8% (3.4%-12.1%) to 13.5% (9.6%-17.4%) in South and Central zones, respectively. The adjusted mean LOS varied from 16.3 (13.8-19.3) days in South Zone to 26.7 (24.2-29.5) and 29.3 (24.0-35.8) days in Edmonton and North zones, respectively. The results show several statistically significant differences between the first episodes LOS between zones reflecting partly differences in the post-acute care in each location for patients not discharged to home. The one-year-mean hospitalization costs varied from $72,300 ($55,000-$95,100) in North Zone to $25,500 ($20,500-$31,800) in South Zone. **CONCLUSIONS:** The study shows significant variation in outcomes for ischemic stroke between the five health zones. Although the Provincial Stroke Strategy has largely standardized the stroke care between regions, differences in post-acute care arrangements have produced significant LOS and cost differences. More detailed analysis of the reasons for regional variation is needed for improvement of the regional health care outcomes.

PCV170

THE ASSOCIATION OF HOSPTIAL TYPE AND STROKE CENTRE WITH MORTALITY, LENGTH OF STAY AND HOSPITAL COST OF ISCHEMIC STROKE PATIENTS IN ALBERTA

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**OBJECTIVES:** This study examines the association of 30 day in-hospital mortality, length of stay (LOS) during the first hospital episode, and hospitalization costs during one year after acute ischemic stroke by type of hospital and by stroke centre status. **METHODS:** New ischemic stroke (ICD-10 code I63) patients (no previous stroke within one year) between April 1, 2006 and March 31, 2009 (N=4,350) were followed for one year using hospital Discharge Abstract Database. The severity of the stroke was obtained from the ambulatory care database. Median hospital costs by CMG+ group were obtained from Alberta Health. Hospitals were classified as teaching, community large, community medium, and community small hospitals. Hospitals were also classified as comprehensive stroke centre, urban and rural primary stroke centres, and other urban and rural hospitals. The adjusted risk factors in Bayesian Model included sex, age, all disease-specific co-morbidities, and disease severity. The results for four hospital types and five stroke center categories were calculated using the observed/expected approach. **RESULTS:** The 30 days mortality rates (95% CI) were lowest for teaching hospitals 10.1% (9.0%-11.2%) and large community hospitals (10.0%; 8.3%-11.8%), and the small community hospitals had the highest mortality rates (12.8%; 9.9%-15.8%). The mean LOS (95% CI) varied from 21.7 (20.9-22.6) days in teaching hospitals to 34.2 (28.6-41.0) days in community medium hospitals. The community medium hospitals had significantly higher costs ($62,400; $49,900-$78,000) than the community large hospitals ($32,900; $29,900-$36,200) and teaching hospitals ($37,000; $34,900-$39,200). Both comprehensive stroke and urban stroke centers had lower 30 day mortality rates (95% CI): 9.9% (8.8%-11.1%) and 9.7% (7.3%-12.0%); shorter LOS 21.6 (20.7-22.5) and 25.0 (22.7-27.6) days; and medium levels of costs $39,300 ($36,100-$40,700), compared to other hospitals. **CONCLUSIONS:** The study shows the hospital type and stroke centre had limited effects on the mortality but significant impact on LOS and costs.

PCV171

IN-PATIENT HOSPITAL COSTS OF STROKE: A FOCUSED LITERATURE REVIEW

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**OBJECTIVES:** Stroke is the third leading cause of mortality worldwide, with significant associated acute care hospitalization costs. The objective of this literature review was to delineate the costing methodologies employed for the estimation of in-patient hospital costs of stroke. **METHODS:** A PubMed search was performed using the keywords: hospitalization, cost analysis, acute stroke, and cost-effectiveness; limited to publications in English from 2008 onwards. Inclusion criteria were patient-level data collection and detailed description of costing methodology applied. Cost-effectiveness and literature review studies were excluded. **RESULTS:** In total 22 articles were included in the analysis. Cohort studies comprised 45% of the sample, followed by database analyses (32%), registered-based studies (9%), retrospective chart review studies (9%), and clinical trials (5%). Cost categories measured included direct medical costs (bed and staff, laboratory and imaging investigations, medications, rehabilitation and supportive nursing care), as well as indirect costs for the patients and their caregivers; in 2 studies the economic analysis was performed from a societal perspective. The resource utilization (excluding the database analyses) was identified in the medical records (80%), or from interviews (20%). Unit costs were primarily derived from national listings or hospital accounting files (36% each). The sample sizes (ranging from 100 to over 60,000 patients), as well as the total costs (ranging from US$500 to US$150,000 per patient and from US$70 to US$13,000 per day) varied significantly, as a result of the heterogeneous cost variables described. **CONCLUSIONS:** Methodologies differed in approach, complexity and specific cost variables evaluated. Consequently, the total costs varied significantly across studies which makes direct comparisons of outcomes difficult. A trend towards more sophisticated economic analyses, such as real costs measured versus hospital reimbursement rates, or hospitalization costs before versus after stroke, was observed. A more standardized approach to evaluating in-patient costs of stroke care is warranted.

PCV172

OPTIMIZING PROCESS EFFICIENCY THROUGH IMPLANTING REVEAL LINQ VERSUS REVEAL XT/DX FROM THREE SPANISH HOSPITAL PERSPECTIVE

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**OBJECTIVES:** Implantable loop recorders (ILR) are devices that continuously monitor heart rhythm in patients with suspicion of cardiac arrhythmias. Reveal LinQ™ is a new insertable holter, an 87% smaller than Reveal® XT/DX that records abnormal heart rhythm up to 3 years. The objective was to develop an economic tool which allows hospitals to quantify their cost savings from the simplified procedure of Reveal LinQ™. The tool was used to compare the costs of implanting Reveal® XT/DX in the cath lab to the costs of inserting Reveal LinQ™ out of the cath lab in three public hospitals of the Spanish National Health Care System. **METHODS:** A cost model was developed to assess the cost per procedure of Reveal LinQ™ and Reveal® XT/DX. The model included data of the personnel needed in the procedure, the hospital setting, the hospitalization previous to the procedure, remote monitoring and post-procedure controls. **RESULTS:** The total process-related savings of LinQ™ vs. Reveal® XT/DX in Virgen de la Salud, Puerta de Hierro and Virgen de la Arrixaca Hospitals were €335 (13.3%), €365 (13.1%) and €517 (19.2%), respectively. Reveal LinQ™ was associated with a 66% reduction in cardiologist and OR-assistant time in Virgen de la Salud Hospital, a reduction of 15 minutes of cardiologist time in Puerta de Hierro Hospital and a reduction of 3 control visits due to remote monitoring in Virgen de la Arrixaca Hospital. **CONCLUSIONS:** The economic tool showed that the insertion of Reveal LinQ™ is associated with mean savings of €406 from a hospital perspective compared to previous devices; mainly derived from moving the procedure out of the catheter lab, a reduction of the specialists' time and in-hospital follow up visits due to remote monitoring.