PMR28 PREVALENCE OF THYROID DISORDERS AND NEED FOR UNIVERSAL SCREENING OF THYROID DYSFUNCTION IN PREGNANT WOMEN: A META-ANALYSIS
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OBJECTIVES: Thyroid dysfunction is the second most common endocrinopathy affecting pregnant women. Many studies have reported that thyroid function screening should be routinely performed in all pregnant women. The aim of the present study was to determine the prevalence of thyroid disorders during pregnancy and to evaluate efficiency of the universal screening strategy and effectiveness of screening strategy for diagnosing thyroid dysfunctions.
METHODS: Comprehensive literature search was done in PubMed and EMBASE databases till July 2012 for studies related to prevalence and screening of thyroid dysfunctions. Primary outcomes of interest were prevalence and sensitivity of the strategy. Study quality was assessed using quality criteria tool. The prevalence estimates were combined using the random-effects model of the inverse variance method. Heterogeneity was assessed by $I^2$ statistics. Publication bias was assessed using Begg and Egger tests. Sensitivity analysis was also performed.
RESULTS: A total of 33 studies (1998–2012) for prevalence and (2007–2011) for screening were found to be pertinent. Because of significant heterogeneity, a random effects model was chosen. Combined analysis of weighted pooled prevalence of 19 studies of Thyroid Auto Immunity found 9.7% (9.5–10). 21 studies of hypothyroidism found 3.7% (2.2–6.1) and 10 studies of hyperthyroidism found 2.2% (1.0–4.5). 7 studies of overt/ clinical hypothyroidism found 3.7% (3.4–4.7). 6 studies of hypothyroidism found 3.4% (1.2–9.8). 4 studies of overt/ clinical hyperthyroidism found 0.6% (0.3–1.4) and 5 studies of subclinical hyperthyroidism found 0.022 (1.6–2.9). For the effectiveness of universal screening strategy, the primary estimate was weighted mean sensitivity of screening strategy of 95% (95%).
CONCLUSIONS: Our analysis supports the hypothesis of higher prevalence of thyroid dysfunction in pregnancy especially, hypothyroidism. The universal screening strategy is found to be effective as the case-finding strategy fails to detect the majority of pregnant women with thyroid dysfunction.

PMR29 CHALLENGES IN ASSESSING THE IMPACT OF HYPONATREMIA MANAGEMENT ON LENGTH OF STAY: INTERIM RESULTS FROM A GLOBAL, MULTI-CENTER, PROSPECTIVE, OBSERVATIONAL REGISTRY OF HOSPITALIZED HYPERVOLUMEC AND EUVOLUME HYPONATREMIC PATIENTS
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OBJECTIVES: Hyponatremia (HN) is the most common electrolyte abnormality in hospitalized patients. Because of the methodological difficulties, little is known regarding the impact and management of HN on patient outcomes and health care resource usage. The HN Registry is a novel prospective effort to document the clinical management and health care outcomes of HN.
METHODS: After informed consent or waiver, data were extracted from medical charts of patients enrolled in the HN registry. HN was defined as a serum sodium ≤ 130 mmol/L. Data from these eligible patients are summarized by sample size (n) and percentage (%) for categorical data, and mean and standard deviation for continuous variables. Since there is no universal definition, length of stay (LOS) was calculated in several ways including LOS from date of HN identification (LOS 1), LOS from date of HN treatment initiation (LOS 2), and LOS limited to cases where treatment was initiated within 72 hours of HN identification (LOS 3). A total of 3795 of the 4090 patients enrolled at 253 (US=160, EU=93) sites between Sept 2010 and January 2013 had sufficient data for analysis. For fluid restriction, LOS 1 = 8.0, LOS 2 = 9.9, LOS 3 = 6.9. For pharmacological therapy, LOS 1 = 8.7, LOS 2 = 7.18, LOS 3 = 6.9. For hypertonic saline, LOS 1 = 7.0, LOS 2 = 6.6, LOS 3 = 7.2, LOS 4 = 6.3. CONCLUSIONS: Our analysis shows a considerable LOS variability by HN management and LOS definition. By correcting the analysis for baseline factors and outliers, the effect of HN management on LOS may become clearer.

PMR30 OPTIMIZING REAL WORLD DATA COLLECTION FOR COMPARATIVE EFFECTIVENESS AND MARKET ACCESS
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OBJECTIVES: Real world data studies provide a level of granularity that may be not be available in randomized clinical trials (RCTs) that have strict inclusion exclusion criteria and may lead to weak external validity. Furthermore, RCTs generally do not capture important information on adherence, costs and real-world side effects. The purpose of this study is to understand how to design patient registries and other observational studies to optimize their use to support market access. The study was conducted by analysing existing registries in a general therapeutic area in European markets including Belgium, Denmark, France, Germany, Italy, Poland, Spain, Sweden and the UK. The main finding was that existing registries and to unknown extent were ‘not prevalent’. Missing attributes that were perceived as essential based on expert opinion were also collected, identifying gaps in available data. Second, an international payer panel completed a quantitative survey and completed qualitative interviews to understand payer perspectives on currently available attributes, including those that were perceived as gaps. This included impact on price, reimbursement status and formulary listing. Transferability of data was also tested to identify whether payers would accept data from other markets and determine what should be collected to maximise market access.
RESULTS: Data gaps were covered referenced with the payer needs to understand which endpoints are not currently being addressed. This allowed an accurate map of critical endpoints needed to have the greatest impact on market access. CONCLUSIONS: In an era of evidence based medicine and constrained budgets, drug manufacturers need to identify how to best utilise real world data and patient registries. Using this methodology, it is possible to identify what data to collect and where it should be collected in order to maximise the market access opportunity and pricing potential.

PMR31 COMPARISON OF INFORMAL CARE TIME AND COSTS IN DIFFERENT AGED-RELATED DEMENTIAS: A REVIEW
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OBJECTIVES: Age-related dementia is a progressive degenerative brain syndrome whose prevalence increases with age. Alzheimer disease (AD), Parkinson disease (PD), Vasopressin Dementia (VD) are the most common age-related dementias. Dementias cause a substantial burden on society and on families who provide informal care. This study aims to review the relevant papers to compare informal care time and costs in different age-related dementias.
METHODS: A systematic bibliographic search was performed on an international medical literature database (MEDLINE). All studies which assessed the social economic burden of different dementia diagnoses were selected. Informal care time were analyzed by disease stages and in three care settings, at home, in institution and without care setting distinction. RESULTS: 21 studies met our criteria. Depending on studies, informal costs vary from $1,364 to $44,736 in AD patients at home and $3,683 to $5,386 in PD patients. In home care, informal time care vary from 11.59h to 139.30h per week for AD patient at home and from 10.00h to 22.00h per week for PD patients at home. For informal care time and costs in institution only papers. The AD were available. The annual informal costs vary from $416 to $5,542 and informal care time varies from 3.02h to 17.25h per week. For patients without distinction of care setting, annual informal costs varies from $1,831 to $11,251 for AD and informal care time from 12.29h to 66.55h per week. Mean informal care time per week for patient at home was 13 b in AD and 15.8 b in PD (p=0.0076) and the associated mean annual informal costs were $17,492 versus $3,288, respectively (p=0.0393). CONCLUSIONS: There is a lack of data about informal care time and costs among other dementias than AD or PD. Globally, AD is most costly in terms of informal care costs than PD.

PMR32 TRENDS IN THE COST AND CHARGES FOR A HOSPITAL ADMISSION FOR ACUTE ISCHEMIC STROKE (AIS) IN THE UNITED STATES: DO THE TRENDS TRACK WITH THE CONSUMER PRICE INDEX (CPI) FOR MEDICAL CARE SERVICES?
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OBJECTIVES: The use of effective but high cost interventions and improved survival may affect the cost of a hospital admission. Thus, hospital costs for AIS may be expected to increase in correspondence with the increase in CPI. The study aims were (i) to compare the trends in costs and charges for hospital admissions for AIS with the CPI annually, and (ii) to compare the trends in costs and charges for hospital admissions for AIS with the CPI over the same time period.
METHODS: A total of 499,661 hospital admissions for AIS were extracted from the Nationwide Inpatient Sample (NIS), Healthcare Cost and Utilization Project (HCRU) data for 2005-2010. Cost per admission was estimated from total charges. Charges for hospital’s cost-to-charge ratio (CCHR) were calculated using the Nationwide Hospital Cost and Utilization Project (HCRU) data for 2005-2010. Costs and charges were adjusted using the CPI for medical care services. RESULTS: Use of tPA and/or MT was examined using multiple regression analyses. Use of tPA and/or MT was examined using multiple regression analyses. CONCLUSIONS: Cost of a acute care admission for AIS increased at a greater rate, annually, than the CPI from 2005 through 2008, but appeared to level of in 2009, with CPI admission most closely following the CPI. Utilization of tPA increased in 2005 from 1.84% to 5.47% over the same time period. Charges for AIS admissions have increased much more rapidly than the CPI observed from 2005 to 2010, with admissions receiving tPA having the greatest gain in charges. CONCLUSIONS: Cost of care for AIS patients who receive tPA followed by MT, but costs for non-tPA patients increase at a greater rate. This disparity could indicate a widening gap between cost and reimbursement for non-tPA admissions, and/or a failure of many hospitals to accurately record the use of tPA for billing purposes.

PMR33 REVIEW OF COST-UTILITY ANALYSES IN ASIA
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OBJECTIVES: To review published cost-utility analyses (CUA) targeted towards Asian populations, and summarise the cost-effectiveness of the interventions studied. METHODS: We used the Tufts Medical Center Cost-Effectiveness Analysis Registry (www.cearegistry.org) to identify English-language CUA pertaining to Asian countries published from 2000-2011. We examined peer-reviewed papers, and identified 87 CUA published during 2000-2011, 109 (4.0%) pertained to Asian countries: Japan (n=43), Taiwan (n=23), China (n=11),
OBJECTIVES: To determine study quality, estimate quality scoring reliability, and assess theorized quality predictors of pharmacoeconomic publications evaluating recent new molecular entity and biologic license approval (NMEs) by the U.S. Food and Drug Administration (FDA) and original pharmacoeconomic studies (cost-effectiveness, cost-outlay, cost-benefit or cost-minimization) considering any of 50 NMEs approved in 2008-09 and published on or before December 31, 2011. MEDLINE and the UK National Health Service Economic Evaluation Database were searched. Quality was scored with the Quality of Health Economic Studies (QHES) index for each publication by one primary and two secondary reviewers. Interrater reliability was assessed using Kappa statistics. Regression was performed of QHES score on study characteristics including number of authors, journal impact factor one-year pre-submission, journal type (disease-specific/general clinical/hospital economic publications), study type (cost-effectiveness vs. cost-utility), publication timing (pre-/post-NME approval), author(s) having academic affiliation (yes/no), advanced modeling PE techniques (yes/no), United States vs. non-U.S. affiliation (yes/no), and statistical analyses (parametric vs. non-parametric). RESULTS: The literature search yielded 203 search results with 37 publications meeting inclusion criteria, encompassing 38% of the 2008-09 NMEs. Average all reviewers, the QHES score range was 15-93, with a median of 70, and mean 68.4±18.4. The total QHES score was significantly correlated between reviewers (R= 0.677). A square transformation was applied to QHES score to correct for a negatively skewed distribution. Regression analyses were non-significant for all study characteristics, although use of advanced modeling PE techniques approached significance (p=0.083). CONCLUSIONS: QHES scores indicated that the quality of pharmacoeconomic literature for newly-approved NMEs varies, although both the highest and lowest studies (including some median) were near or exceeded the 75 point threshold considered “good”. Interrater reliability for QHES assessment was fair. Sample size was insufficient to identify significant predictors among the variables analyzed.