likely to be little or no change in how this is managed. Conversely, in countries where the orphan drug provision is integrated with the healthcare macro-structure, such as in the UK with the former regional Special Commissioning Groups, this will likely change along with structural reforms to the overall system. Finally, in markets where healthcare can be considered predominantly privately funded (e.g. USA), unless there are changes made to legislation, orphan drug provision and funding are unlikely to be significantly affected in the future. **CONCLUSIONS:** Despite the issues of tightening budgets, restrictions on prescribing and structural reform, orphan drug provision is unlikely to decrease from current levels, but budgetary constraints may make the future landscape more hostile to drugs for new orphan indications.

PHP42

EVALUATING DRUG COST AND RESTRICTION PROCESSES OF COMMONLY USED PRESCRIPTION DRUGS UNDER EACH 2011 CALIFORNIA STAND-ALONE MEDICARE PART D PLAN

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OBJECTIVES: Although the Medicare Part D benefit has helped improve prescription medication access and lower out-of-pocket spending for some, variability in drug cost and access restrictions of Part D plans continues to present a challenge for others. The present research sought to examine the reported drug cost and restrictions (Step Therapy (ST), Quantity Limits (QL), Prior Authorization (PA), and Formulary Coverage) associated with each of the 100 (65 generic and 35 brand name) most commonly filled drugs by Medicare beneficiaries under every stand-alone prescription drug plan (PDP) available in California in 2011. **METHODS:** The list of the top 100 Drugs by total fills under Part D plans in 2008 was retrieved from the Centers for Medicare & Medicaid Services. Each of these drugs was entered into the Medicare Plan Finder Tool (www.medicare.gov). Data found via use of the Plan Finder Tool revealed the full cost, formulary coverage and restriction processes of every examined drug under each of the 2011 California PDPs for which data were available. **RESULTS:** The difference between the lowest and highest plan reported full cost of each generic (brand) drug from all available PDPs ranged from a low of $3.37 ($5.41) to a high of $134.34 ($106.33). In addition, differences were found between generic and brand medications in terms of drug restrictions (3.08% generic vs. 57.1% brand drugs required ST), (58.46% generic vs. 94.3% brand drugs required QL) and (4.62% generic vs. 31.4% brand drugs required PA) across the PDPs. Finally, 13 (20%) generic and 25 (71.4%) brand-name drugs were not covered on one or more PDP formularies. **CONCLUSIONS:** Significant differences in medication costs and plan imposed restriction processes exist between the various 2011 California PDPs. Such differences may present additional barriers to Part D plan access and potentially impact health-related outcomes and costs of Medicare beneficiaries.

PHP43

THE INFLUENCE OF PATIENT ACCESS SCHEMES ON APPRAISAL DECISIONS BY NICE IN THE UNITED KINGDOM

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OBJECTIVES: Patient Access Schemes (PAS) have become increasingly important in technology assessment by NICE; a previous ISPOR abstract showed an increase in PAS inclusion in submissions from 0 in 2006 to 29% in 2009. However, concerns have been raised regarding the increasing complexity and the suitability of these schemes compared to other cost-containment methods. We aimed to evaluate the influence of including PAS on appraisal decisions by NICE, and consider the impact that this could have on future submissions. **METHODS:** All NICE technology appraisals published in 2010 and appraisals in development were reviewed. Submissions in which a PAS was included were identified; PAS were defined as the manufacturer providing a pre-defined reduction in overall cost of treatment through risk-sharing or rebate schemes. **RESULTS:** Of the technology appraisals published by NICE in 2010, 24% (6/25) included a PAS. Of the appraisals in development for which a final appraisal determination has been published, 44% (7/16) included a PAS, either in the original submission or in the revised manufacturer's model. Oncology products represented 10 of the 13 (6 published + 7 in development) submissions identified. Of these 13 submissions, 3 published in 2010 received a negative appraisal, along with 4 of the appraisals in development (subject to appeal). In the majority of these cases, even when the PAS was included in the economic model the proposed ICER was still above the assumed willingness-to-pay (WTP) threshold of £30,000 per QALY. Excessive administrative burden of implementing the PAS was also noted in one rejected submission. **CONCLUSIONS:** PAS are an increasingly important element of NICE submissions to enhance the cost-effectiveness of innovative drugs. Negative appraisal decisions made on submissions including PAS highlight how manufacturers must ensure that these schemes are easy to implement and enhance cost-effectiveness to a level deemed acceptable by NICE, in order to positively influence appraisal decisions.

PHP44

DURATION OF PATIENTS VISITS TO THE EMERGENCY DEPARTMENT

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OBJECTIVES: This study explores the duration that patients stay in the emergency department (ED) for visits where they are treated and released. Duration for treat-and-release (T&R) ED visits is assessed by admission day and hour, patient demographics and hospital characteristics. **METHODS:** A retrospective data analyses was conducted to characterize the duration of T&R ED visits. Duration for each visit was computed by taking the difference between admission and discharge times. Sensitivity analyses were performed to assess the robustness of results. The Healthcare Cost and Utilization Project (HCUP) State Emergency Department Databases (SEDD) for 2008 were used in the analysis. The SEDD employed in this study include 4.7 million T&R ED visits in Arizona, Massachusetts, and Utah. **RESULTS:** Duration varied significantly across admission hour and day of the week. At 95th percentile, the average duration of T&R ED visits were longer (197.8 – 202.6, minutes). The average duration for patients admitted at 8 a.m. on Mondays, other weekdays, and weekend were respectively 184, 189, and 172 minutes. Similarly, the average duration for patients admitted at 4 p.m. (12a.m.) on Mondays, other weekdays, and weekend were respectively 210, 202 and 179 (231, 246 and 234) minutes. Medicare patients have the longest average duration (238 minutes). Black patients have 22 minutes longer duration compared to white patients. There was significant variation in average duration across disease groups (e.g., 284 minutes for mental disorders and 160 minutes for injury and poisoning related diseases). The average duration at teaching (non-teaching) hospitals was 225 (166) minutes. Hospitals with large bed size were associated with the longest duration of visits (222 minutes) when compared to hospitals with small bed size (172 minutes). **CONCLUSIONS:** The duration of T&R ED visits varied significantly across patient characteristics, hospital characteristics, admission hour, and day of the week.

PHP45

TRENDS OF HEALTH CARE UTILIZATION AMONG LOYAL PATIENTS IN A MEDICAL CENTER UNDER TAIWAN'S UNIVERSAL HEALTH INSURANCE PROGRAM

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OBJECTIVES: Those patients visited toward a single hospital loyally have accounted for 3.5% of all beneficiaries and consumed 19.3% of covered medical expenditure under Taiwan's National Health Insurance (NHI) program. This study was to examine the trends of service utilization, medical expenditure and disease patterns among loyal patients visited toward China Medical University Hospital (CMUH), a 2000-bed medical center in Taiwan. **METHODS:** Patients' visits made toward CMUH accounted for more than 50% of their total outpatient visits in Taiwan during January 2008 to June 2009 (retrospective period) were assigned as CMUH loyal patients by Bureau of NHI. The corresponding data documented in CMUH from January 2008 to April 2010 were retrieved and analyzed. Those assigned loyal patients persistently visited CMUH during July to September 2009 were grouped into four levels of utilization base upon their numbers of outpatient department (OPD) visits made toward CMUH during retrospective period. The comparisons of disease statuses, healthcare utilization, medical expenditure and visits toward different specialties among different utilization groups and across different study periods in CMUH were made. **RESULTS:** 11,846 CMUH loyal patients were groups into four levels of OPD utilization (<20, 21~23, 24~35, >36) during 18 months (mean OPD visit =1.83/person/month). Those loyal patients used more OPD visits were elder, more co-morbidities, taken care by more physicians and medical specialties, and prescribed more medications. The more visits made toward OPD, the higher likelihood to consume more medical expenditures and utilize more medical resources in CMUH. Although more than 75% of OPD visits were made toward one or two medical departments, more medical resources in CMUH were attributable to those patients visited more than three medical specialties. **CONCLUSIONS:** Results suggest in-house programs to facilitate integrated care and medication reconciliation toward high utilization loyal patients are more demanded than other loyal patients in CMUH.

PHP46

THE STATE OF HEALTH ECONOMIC EVALUATION IN SOUTH AFRICA: A SYSTEMATIC REVIEW

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OBJECTIVES: The study assessed the state of health economics (including pharmacoeconomics) research in South Africa. **METHODS:** A literature search was conducted to identify health economics articles pertaining to South Africa. Two reviewers independently scored each article in the final sample using the data collection form designed for the study. **RESULTS:** In total, 108 studies investigating a wide variety of diseases were included in the study. These articles were published in 39 different journals mostly based outside of South Africa between 1977 and 2010. On average, each article was written by four authors. Most first authors had medical/clinical training and resided in South Africa at the time of publication of the study. Based on a 1 to 10 scale, with 10 indicating the highest quality, the mean quality score for all studies was 7.59 (SD = 1.42) and half of the articles were of good quality (score 8-10) The quality of studies was related to the country in which the journal publishing the article was based (outside South Africa = higher), current residence of the primary author (outside South Africa = higher), method of economic analysis (economic evaluations higher than cost studies), type of data used (secondary higher than primary), primary training of the first author (health economics/pharmacoeconomics = higher), type of medical function (diagnosis = higher), study perspective (society = higher), primary health intervention (pharmaceuticals = higher), study design (modeling = higher), number of authors (more = higher), and year of publication (more recent = higher) ($p < 0.05$). **CONCLUSIONS:** Half of the articles were of poor or fair quality. Measures are needed to promote the commissioning of more and better quality health economics and pharmacoeconomics studies in South Africa.