pathways for biopharmaceuticals are well established, it is only in the past decade that regulatory development has evolved to secure guidelines and controls for stem cell based therapies, creating evaluation challenges for payers as these agents enter the market. METHODS: Conventional pharmaceuticals are generally assessed using a "value based" approach, in which their value is assessed by evaluating the positive and negative differentiation from established references. As no true direct reference will be available for allogenic products, potential references will be identified to support the "value based" approach and identify market access challenges. RESULTS: Skin replacement therapies are the only commercialized allogenic products to date (e.g. TransCyte and Apligraf), and serve as interesting case studies to evaluate how these types of therapies may be valued. Biologic agents faced a similar dilemma when first launched and demonstrated the importance of identifying appropriate indirect references to support these novel drugs. CONCLUSIONS: In the evolving regulatory and F&R environment, a greater unknown in regenerative medicine concerns the process of pricing and market access. Learning from biologics and skin replacement therapies can infer challenges and opportunities for these new therapies.

**PHP20**

**COST-EFFECTIVE PHARMACEUTICAL CARE IN THE NETHERLANDS? A REVIEW OF THE PHARMACOECONOMICS AND ITS ROLE IN THE ASSESSMENT OF NEW DRUGS**

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BACKGROUND: In The Netherlands, the reimbursement of new drugs is not only based on their therapeutic value and budget impact but also on their cost-effectiveness. Since 1 January 2005, economic evaluations are formally required for establishing a cost-effectiveness. These evaluations should follow pharmacoeconomic guidelines. OBJECTIVES: This study reviews: 1) the extent to which guidelines are followed in pharmacoeconomic evaluations; 2) the use of guidelines in assessing the evaluations and cost-effectiveness of drugs; and 3) the role of pharmacoeconomics in reimbursement and decisions. METHODS: All reimbursement files that were submitted and assessed between 1 January 2005 and 1 October 2008 are reviewed (n = 21). Information on the follow-up and use of pharmacoeconomic guidelines as well as the advisers and decisions on drug reimbursement is extracted from publicly available information in two independent reviews. Both quantitative and qualitative descriptive analyses are conducted. RESULTS: Formally required pharmacoeconomic evaluations increasingly follow guidelines, particularly those concerning the analytic perspective (81%), the relevant comparators (81%) and both the total and incremental cost-effectiveness analyses (100%). Due to flaws in drug indication, type of analysis and time horizon, however, the cost-effectiveness of drugs is not always well established (62%). Moreover, the costs and effects are not always correctly analysed and modelling studies are often non-transparent. Partly based on pharmacoeconomics, 12 new drugs were reimbursed, and 9 rejected. CONCLUSIONS: Cost-effectiveness of new drugs and sound pharmacoeconomic evaluations become increasingly important in drug reimbursement and ensuring the quality and affordability of Dutch pharmaco-economic.

**PHP21**

**THE ROLE OF MONETARY AND NON-MONETARY INCENTIVES ON THE CHOICE OF PRACTICE ESTABLISHMENT: A STATED PREFERENCE STUDY OF YOUNG PHYSICIANS IN GERMANY**

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OBJECTIVES: Descriptive analysis of the growth in the number of physicians in many industrialized countries, significant inequalities in their distribution exist between rural and urban areas. Therefore, decision-makers need detailed information about young physicians' preferences in establishing a practice. The aim of the study was to quantify the preferences for different attributes relevant to practice establishment in Germany. METHODS: In the qualitative part of the study, in-depth interviews of 22 physicians were conducted to identify relevant practice attributes. Based on this information a questionnaire was developed containing a discrete choice experiment comprised of a "best-worst scaling" (BWS) task. It was mailed to a representative sample of 14,939 young physicians who were close to make a decision regarding practice establishment. Regression analysis was used to estimate utility weights quantifying physicians' preferences for practice attributes. RESULTS: From the qualitative part six attributes were identified relevant to practice establishment: "professional coopera-tion", "income", "career opportunities of the partner", "availability of child care", "leisure activities", and "on-call duty". For the BWS task, 5026 returned questionnaires were analyzed. The results indicated that a change in income is most important to physicians. It would result in the largest utility change compared with changes in the remaining attributes. Physicians' preferences showed that the additional net income per month to compensate the disutility of a practice in a rural area was $9044 (US$11,938). Yet, non-monetary attributes as on-site availability of childcare and few on-call duty would decrease the additional income required to compensate the disutility of a practice in rural areas.

CONCLUSIONS: Physicians offer detailed and quantifiable information to health policy makers to develop tailored incentive-based interventions to diminish urban-rural inequalities in physician coverage. Only a substantial rise in income increases the probability that young physicians establish a practice in more rural area.

**PHP22**

**TOO MANY AGENCIES FOR DRUG EVALUATION IN SPAIN?**

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OBJECTIVES: Identify the health agencies/committees that are involved in new drug evaluations in Spain. METHODS: Search in the Spanish Health System and in the several Regional Health Systems databases the different agencies/committees that are developing new drug evaluations. RESULTS: Five regional drug evaluation committees which are working since late 2003 in a coordinated way are playing the main role of new drug evaluations in the primary care (PC) setting, conforming a Joint Committee. Other 12 regions are publishing with different degrees of periodicity their own new drug information leaflets in the PC setting. In the hospital setting each centre has a single entity for accepting new drug applications (own formulas, although there is a working group in the SEFH (Spanish Society of Hospital Pharmacy), named GENESIS, which is leading an initiative to have a common methodology for evaluating new drugs and to avoiding potential duplicities in drug evaluations in the hospital background. Besides, there are different health technology agencies (1 national + 6 regional) in Spain that rarely evaluate new drugs. CONCLU-SIONS: Spain has one of the biggest European framework of health technology agencies that is seldom used to develop new drug evaluations. In parallel, all the Regional Health Systems have developed their own new drug evaluation entities to evaluate drugs with a high potential consumption in the PC setting. Other initiatives have been developed to diminish potential evaluation duplicities either in the PC or in the hos-pital setting. Most of the new drugs evaluations are negative and focused to restrict the consumption of new drugs available in the market to control drug expenditure.

**PHP23**

**GENERAL PRACTITIONERS’ PRESCRIPTIONS INDICATORS TRENDS, A TIME-SERIES REVIEW DURING 1998–2003 IN IRAN**

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OBJECTIVES: Regular monitoring of drug consumption is an important tool for planning and policy making in rational use of drugs. This study has evaluated the general practitioners’ prescriptions indicators’ trends in prescriptions during 1998–2003 periods. METHODS: In this eco-logic study, over 9 million prescriptions from the data bank of National Committee of Rational Drug Use (NCRUD) of Iran were analyzed. Mean items per prescription, mean cost of prescription, percentage of prescription parenteral drugs, percentage of prescript antimicrobial drugs, percentage of prescript NonSteroidal Anti Inflammatory Drugs (NSAIDs) and percentage of prescript corticosteroid drugs were calculated quarterly from 1998 to 2003. Time series analysis by using appropriate regression models was performed with SPSS software version 11.5. RESULTS: Mean items per prescription shows descending trend during the study period. This indicator decreased from 4.9 in 1998 to 3.07 in 2003. Linear regression model predicted 0.037 decrease for this indicator per each season. Percentage of pre-scription antimicrobial drugs had an ascending pattern at first, following with a descending trend. Injectable drugs prescription decreased from 52.2% in the spring of 1998 to 45.5% in the fall 2003. NSAIDs prescription had 0.37% decrease per season. CONCLU-SIONS: Observed descending trends of the study indicators shows the effective-ness of NCRUD committees’ activities and it is suggested to promote their activities.

**PHP24**

**ANTIPSYCHOTICS CONSUMPTION IN THE REPUBLIC OF CROATIA IN 2005, 2006 AND 2007**

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OBJECTIVES: Evaluation of the drug use is a system of continuous, systematic, cri-teria-based drug evaluation that ensures the appropriate use of drugs. Drug utilization research in itself does not necessarily provide answers, but it contributes to rational drug use. Antipsychotics are used to treat the symptoms of schizophrenia and bipolar disorders. A review of the cost and consumption for all medicines and antipsychotics in Croatia, as well as the data on medicine usage for these two groups are obtained. Collecting and analyzing the data on antipsychotic consumption may lead to the improvement of the antipsychotic therapy. METHODS: Agency for Medicinal Prod-ucts and Medical Devices in Croatia collected and processed data on consumption of the medicines. Data on medicines usage between 2005–2007 was gathered, processed by the DDD/1000 inh/day and ATC classification, and analyzed according to the financial indicators. RESULTS: The total medicines market in Croatia in 2005 was €520 million, in 2006 market was €562 million and in 2007 it was €546 million. By processing consumption data as DDD, between 2005–2007 consumption of N05A group the result was 8.30, 9.56 and 9.65 DDD/1000 inh/day, respectively. Expendi-ture of antipsychotic drugs individually was as follow: haloperidol held the first place with 1.97 DDD/1000 inh/day in 2005, 1.93 in 2006 and 1.93 in 2007, respec-tively. Clozapine was second with 1.80 DDD/1000 inh/day in 2005, 1.86 in 2006 and third with 1.89 in 2007. Olanzapine was third with 1.07 DDD/1000 inh/day in 2005, 1.46 in 2006 and second with 1.92 in 2007. CONCLUSIONS: Within the period of 2003–2007, the prescribed antipsychotics in Croatia showed a continuous increase in prescribed DDD/1000 inh/day. Haloperidol, promazine and olanzapine were the most prescribed drugs. By collecting and analyzing data useful for the improvement of pharmacother-apy, we also obtain information for the many other factors essential for the rational health care.