adjusted 70 and CPI-H adjusted 40) and for basic refund category $147$ (61; 35), respectively. In $1990 = 100$ index the respective figures were: all drugs $110$ (88; 68), prescription based $105$ (83; 64), reimbursed $102$ (81; 62), Basic Refund (“50%”) $102$ (81; 62), Lower Special Refund (“75%”) $102$ (81; 62) and Higher Special Refund (“100%”) $103$ (82; 63). CONCLUSIONS: Nominal drug wholesale prices have increased in Finland since 1980 and also slightly from 1990, but real prices have constantly decreased. Depending from the adjustment index used, the real prices of all drugs have decreased from 30–60% since 1980, or 12–33% since 1990. For reimbursed drugs the development was similar. The prices in general, and in the Basic Refund category have decreased 19–38% since 1990, and even 40–75% since 1980. Since the effectiveness of drugs has not decreased during the time period studied, we suggest that the drug treatment has clearly become more cost-effective in Finland.

**PHP 15**

**COMPARISON OF MARKET EXCLUSIVITY OF PHARMACEUTICALS IN CANADA, THE UNITED STATES, THE UNITED KINGDOM AND FRANCE**

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**OBJECTIVES:** To compare the periods of market exclusivity for branded pharmaceuticals in Canada with the United States, the United Kingdom, and France.

**METHODS:** We identified the 50 top selling generic molecules in Canada. The dates of first sale of the original brand and corresponding first generic for each molecule were compared to determine the period of market exclusivity of each branded product. Corresponding data were collected and periods of exclusivity calculated for the US, UK and France. In cases where a generic had yet to be introduced in a comparator country, the period of market exclusivity was calculated as of May 2003. Average market exclusivity for the products in the study was calculated for each country.

**RESULTS:**
- The average period of market exclusivity for the 50 brands in Canada was 10.7 years, considerably lower than in the other countries (US 12.1; UK 15.0; France 19.1 years).
- There was incomplete international information for nine of the fifty molecules. When the analysis was restricted to the remaining 41 products the results were similar (Canada 9.8; US 12.0; UK 15.0; France 17.0 years). Although the sample products represent the 50 top selling generic molecules in Canada, many were not yet marketed as generics in the comparator countries (US 6; UK 11; France 21).

**CONCLUSIONS:** The analysis indicates that on average, market exclusivity for the same brands in Canada was significantly shorter than in the US, UK and France. A more favourable regulatory climate for generic drugs in Canada (early working, faster generic approval times, mandatory generic substitution laws etc.) and longer approval times for brand drugs may account for some of the differences. Despite changes in patent legislation (1987, 1993) to restore patent protection, the analysis does not suggest a trend toward longer periods of market exclusivity for newer brands in Canada.

**PHP 16**

**SPANISH NATIONAL HEALTH SERVICE: ANALYSIS OF THE INTRODUCTION OF NEW DRUGS IN THE CLINICAL PRACTICE FROM 1996 TO 2000**

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**OBJECTIVES:** When the selection of treatments financed by public money is considered, rational decisions to incorporate a new drug in clinical practice has to be even more exact. Here, we analyse the incorporation of new medicines financed by the Spanish National Health Service (NHS) into the clinical practice from 1996 to 2000. The Spanish NHS covers more than 95% of the population.

**METHODS:** A retrospective study has been made, selecting new medicines classified following the degree of therapeutic innovation at the moment of authorisation (A*, A, B, C, and D), according to the criterion of the Ministry of Health and Consumer (MHC). Consumed data were provided by the MHC database. They were expressed as Price for Sale Direct to Customer, tax-free (PVP) by means of Millions of Pesetas (MPTA) and in number of consumed units. The rapid incorporation of new medicines into the clinical practice (the one-hundred tops) and the evolution of their consume were the indicators used.

**RESULTS:**
- The total number of new drugs selected was 68 (19, 20, 19, 8, and 2 in the years 96, 97, 98, 99, and 00, respectively). None of them were categorised in type A*. Mostly were types B (29.4%) and C (67.6%). From those, Olanzapine (96), Atorvastatin (97), Cerivastatine (98), Clopidogrel (99), or Celecoxib (00), among others, had a very fast incorporation.
- Analysing the evolution of new drug consumption, it detected that some of them have been withdrawn from the clinical practice because of adverse drug events (Ebrotidine (96) in 1998, Grepafloxacin (98) in 1999 or Cerivastatine (98) in 2001).

**CONCLUSIONS:** The indicators used in this study have permitted analyse the quality of the selection of treatments financed by public money. From the results obtained, it would strongly recommend an urgent revision of type C (67.6%) new drugs financed by NHS.

**PHP 17**

**SURVEY ON DRUG VALUE ASSESSMENT AMONG PRESCRIBERS AND PAYERS IN ITALIAN HOSPITALS**

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**OBJECTIVES:** To identify and analyse elements on which hospital decision makers base their therapy value assessment, both in general terms and in relation to acute Heart Failure (aHF) treatment.

**METHODS:** Thirty face to face interviews (15 hospital pharmacists and 15 cardiologists)
were major topics were investigated, Hospital Formulary (HF) listing process, epidemiology and medical need in aHF, HF listing process for aHF drugs, a semi-structured questionnaire was used and both spontaneous and elicited citations were recorded. RESULTS: Most quoted requisites were: superior efficacy in comparison to available alternatives, better cost-effectiveness profile, credibility, and size of clinical studies. Innovation is relevant to pharmacists, while QoL and length of hospital stay are important mostly for cardiologists. Cardiologist and pharmacists showed different level of information regarding aHF. Similar average yearly number of aHF hospitalisation were reported by both targets (cardiologists = 968,7 range 1–1000; pharmacists = 937,5 range 250–1500) but response rate was only 27% among pharmacists. Eighty-seven percent of the pharmacists were unable to rate aHF mortality in their hospitals, estimated by cardiologists from 6–7% to 60–70%. Cardiologists scored clinical efficacy (93%) and absence of contra-indication/interactions (60%) as the most important characteristics of aHF products, while innovation and clinical documentation size and credibility (40% and 47% respectively) are important to pharmacists. Drug price may negatively influence drug listing, limiting the adoption of new products. Reimbursement level assigned by the Ministry of Health is considered an indicator of drug benefit evidence. CONCLUSIONS: Drug efficacy is still guiding product assessment process but cost-effectiveness information is progressively gaining relevance. Decision makers information on disease epidemiology and medical need may be reinforced, allowing for better acceptance of new effective product. Global treatment cost might be considered in drug assessment instead of product price in order to motivate manufacturers in producing robust and credible economic information.

REIMBURSING OFFICE-BASED DRUG MANAGEMENT COSTS: POLICY OPTIONS

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OBJECTIVE: The Centers for Medicare and Medicaid Services (CMS) computes clinical staff incident-to services in physician offices under a zero work hour alternative method. This study compares the results of CMS alternative method payment computations for indirect overhead costs with the actual resource-based level of effort for office-based drug management costs as incurred in U.S. physicians’ offices. METHODS: Phase I: CMS methods used for zero work hour practice expense rate-setting were identified. Underlying assumptions were examined and formal methodology evaluations were collected. Phase II: On-site activity analyses were performed in over 70 physicians’ offices located in 27 states. An activity database was created from study data obtained through direct observation and on-site interviews. Analysis employing descriptive statistics identified activities, tasks, and staff type involved in specific tasks, including drug management. The activity analysis findings were compared to the CMS reimbursement assumptions about these activities. RESULTS: A database of CMS methodology explanations, visuals, and evaluations was created. Activity analysis identified costs of labor and space to order, track, receive, store and pay for the drug; drug inventory carrying costs; net receivables carrying costs and average bad debt cost. Study analyses illustrate that current CMS practice expense payments do not adequately recognize drug management costs in physicians’ offices. Study results revealed a statistically significant differential between actual and assumed use of administrative labor for indirect overhead zero work pool tasks, including those of drug management. CONCLUSIONS: CMS zero work hour methodology to compute payments for office-based practice expense is deficient as to drug management costs. Payment for this component does not align with actual practice occurring within the physicians’ offices. These findings will be of use to economists, cost accountants, and policy makers interested in arriving at an equitable resource-based payment for drug management.

CONSUMER VALUATION OF PRESCRIPTION DRUG BENEFIT PLANS

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OBJECTIVE: To examine consumers’ perspective of the quality of prescription drug benefit plans (Rx plan) using a prescription-drug quality index. Additionally, consumers’ satisfaction and perception of importance of Rx plans were evaluated. METHODS: Consumers with prescription drug benefits were recruited from community pharmacies and random-digit dialing (RDD) to participate in a telephone survey. The questionnaire was constructed from published literature and in-depth interviews with six pharmacists, four consumers, and two employee benefit managers. RESULTS: Two hundred and one consumers participated in a 20-minute telephone interview. When asked to select optional health services over and above hospital and medical services, 62.6% selected prescription drugs services as most important. Using a 10-point scale, with 10 as the highest score, the average perceived quality rating of prescription drug benefit plans was 7.91 (2.0); the average rating for satisfaction with the plan was 7.22 (2.3); and the average rating for importance of the plan was 9.15 (1.3). Few consumers (20%) reported having plan-related problems when obtaining prescription medications. The majority (87%) reported having a copayment/coinsurance. The average prescription drugs out-of-pocket payment was $560 (ranging from $0–$7200) and the median was $200. Of the six prescription-drug quality indicators, only two were found