PFS. Monthly resource utilisation associated with PFS and progression was estimated by a consensus panel of UK experts. Cost of AEs and drug-administration costs were also included. The evaluation accounted for longer treatment duration (24%) with erlotinib compared to docetaxel (mean duration 125 vs. 101 days, respectively). The incremental drug acquisition cost for erlotinib vs docetaxel was consequently £1867. The primary outcome was total direct NHS costs and QALYs. **RESULTS:** Total direct NHS costs were £12,701 and £12,621 for erlotinib and docetaxel, respectively. Erlotinib vs docetaxel offers a cost saving of £971/patient due to its oral administration and £301/patient in the management of AEs. QALYs were 0.201 and 0.176 (erlotinib vs docetaxel, respectively). The ICER for erlotinib vs docetaxel was estimated at £3354. Erlotinib was cost-effective whether or not the calculation assumed improvements in PFS. Improvements in QoL and reduced toxicity with erlotinib led to greater total QALYs vs docetaxel. **CONCLUSIONS:** Erlotinib is a valuable alternative to docetaxel in relapsed NSCLC. Efficacious without compromising QoL and well tolerated, erlotinib can be considered a highly cost-effective treatment for NSCLC in the UK. Orally administered, it may also be associated with a capacity benefit to the NHS through reduction in existing infusion and outpatient requirements.

HEALTH CARE USE & POLICY STUDIES

HP1

CRITICAL APPRAISAL OF ECONOMIC EVALUATIONS OF CHOLESTEROL LOWERING DRUGS: A SYSTEMATIC REVIEW

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OBJECTIVES: The large availability of economic evaluations and their increasing importance for decision making emphasizes the need for economic evaluations that are methodologically sound. The aim of this study is to provide users of economic evaluations of cholesterol lowering drugs with an insight into the quality these evaluations. By focussing on the most relevant studies the gap between research and policy making may be narrowed. **METHODS:** A systematic review was conducted. All publications on economic evaluations of cholesterol lowering drugs were identified by searching Pub Med, the Centre for Reviews and Dissemination database (CRD), the National Health Service Economic Evaluation Database (NHS EED), the Health Technology Assessment database (HTA) and the Database of Abstracts of Reviews of Effects (DARE). A search strategy was set up to identify the articles to be included. These articles were quality assessed using Drummond's checklists. The scoring was performed by at least two reviewers. When necessary, disagreement between these reviewers was decided upon in a consensus meeting. We calculated an average quality score for the included articles. **RESULTS:** The search identified 23 articles that were included. Most studies measured the costs/LYG. The overall score per study varied between 2.7 and 7.7 with an average of 5.4. Most studies score high on the measurement of costs and consequences whereas the establishment of effectiveness leaves room for improvement. Only two studies included a well performed incremental analysis. **CONCLUSION:** This review noticed an increase of quality of economic evaluations over time. Consequently, the value of cost-effectiveness studies for policy decisions increases over time. In general piggy back evaluations tend to score higher on quality and are therefore more valuable in decisionmaking.

HP2

TRENDS IN ANGIOTENSIN II RECEPTOR BLOCKER (ARB) PRESCRIBING AMONG GENERAL PRACTITIONERS IN THE UK

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OBJECTIVES: ARBs were introduced into the UK antihypertensive drug market with conflicting data on their relative effectiveness compared to other classes, which offered lower cost alternatives. The study aim was to determine patient-level characteristics of ARB prescribing patterns and how these changed over time since the first ARB market launch December 1994. **METHODS:** The study population was identified from the Health Improvement Network (THIN) database, an electronic medical record dataset of patients seen by general practitioners in the UK. Patients who received an oral drug approved for hypertension treatment at any point in time from 1995 through 2003 were included. The multinomial logit model was applied to two time periods to predict the likelihood of receiving an ARB prescription compared to other antihypertensive drug classes, after controlling for patient characteristics. A time dummy tested for changes between the time periods. **RESULTS:** Immediately after the first ARB introduction (1995–1997), 0.25% (N = 537,309) of the study population was allocated to ARB therapy. This rose to 6.22% (N = 803,981) for the more recent time period (2001–2003). In the early time period, patients with high blood pressure readings and patients seen by a Cardiologist were more likely to receive prescriptions for ARBs than other antihypertensive classes. This did not persist for the more recent time period. Over time, prescribing antihypertensive drugs for patients with diabetes shifted away from all classes (P < 0.01), except the angiotensin converting enzyme inhibitor (ACEi) class (P = 0.6334), towards ARB prescribing. For patients with heart failure, there was a statistically significantly shift away from prescribing ARBs towards the beta-blocker and "Other" classes. In general, patients with diabetes or heart failure were more frequently prescribed ACEi than ARB therapy. **CONLUSIONS:** ARBs were prescribed cautiously in the UK and ARB prescribing patterns altered over time as new safety and effectiveness evidence emerged.

HP3

THE ROLE OF GENERAL PRACTITIONERS IN THE INITIAL MANAGEMENT OF WOMEN WITH URINARY INCONTINENCE IN FRANCE, GERMANY, SPAIN AND THE UK

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OBJECTIVES: To describe the role of general practitioners (GPs) in the initial management of women with UI in 4 European countries with different health care systems. **METHODS:** Cross-sectional community postal survey of 2,953 community-dwelling women with UI in France, Germany, Spain and the UK. **RESULTS:** There was an overall response rate of 53% (n = 1573). Forty eight percent had discussed their UI with a doctor. More women discussed UI in France and Germany than in the UK and Spain. The patient usually raised the issue, during consultations for some other reason. Fear of, or actual deterioration in UI was the most important reason for discussing UI. Overall 52% of incontinent women first discussed their UI with a GP and almost a third of women reported having all their UI discussions in a GP setting. Twenty nine per cent of women reported that GPs had either recommended treatment or monitoring of their condition before beginning treatment and 24% reported

that the GP had referred them to another doctor for evaluation and treatment. Most women in the UK first discussed UI with a GP whereas in Germany most discussed UI with a specialist. In Spain and France about half the women first discussed their UI with a GP. **CONCLUSIONS:** GPs are involved to varying degrees in the initial management of UI in France, Germany, Spain and the UK. Even in countries where women have a choice of whether to see a GP or specialist about UI many choose to have their first contact with a GP.

HP4

SUMMARIZING POPULATION HEALTH USING EQ-5D

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OBJECTIVES: Summary measures of population health (SMPH) are used by national governments and international agencies for comparative purposes. Such measures have other uses, for example, in monitoring changes in health status over time. Competing approaches for calculating SMPH have been developed using different metrics: disability-adjusted life years (DALY) and quality-adjusted life years (QALY). This lack of standardization in approach might produce conflicting results. The present study was designed to measure disease burden in a US national population survey (MEPS) to test both approaches. **METHODS:** Two methods are compared here: first, the health expectancy method, computing health-adjusted life expectancy by combining health related quality of life (HrQoL) and survival data; second, the health gap method, measuring disease burden by combining the losses due to premature mortality and non-fatal conditions. Both EQ-5D social preference weights and Global Burden of Disease disability weights are employed to assess the effect of different scoring systems. Four disease areas were studied: diabetes, stroke, coronary heart disease (CHD) and asthma. **RESULTS:** Using the health expectancy method based on EQ-5D values, the highest QALY loss of 3.67 years per person was associated with CHD, followed by diabetes (1.26), stroke (1.15) and asthma (0.57). The results based on disability weights had the same rank order among diseases but varied in magnitude by between 1% and 42% compared to EQ-5D estimates. Results were similar using the health gap method. Disability-weighted estimate for CHD was 8508 thousand DALYs, followed by diabetes (4378), stroke (3277) and asthma (1429); EQ-5D values produced the same rank order but variation was lower (2% to 15% lower). **CONCLUSIONS:** A single metric for measuring health status in clinical and population studies would help improve knowledge transfer between health care decision-makers. EQ-5D has potential value as a summary measure of population health.

INFECTION

IN1

BUDGETARY IMPACT OF PNEUMOCOCCAL CONJUGATE VACCINATION OF NEWBORNS IN THE PERSPECTIVE OF THE REGIONAL HEALTH CARE SYSTEM OF LOMBARDY

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OBJECTIVES: Pneumococcal (Pnc) disease represents a major health care concern being associated with severe complications. Scope of this study was to evaluate the budgetary impact effect of providing vaccination with seven-valent pneumococcal conjugate vaccine (PCV) to newborns in Lombardy (Italy). **METHODS:** Budget impact analysis was applied to the 2004 cohort of newborns of Lombardy: efficacy data as number of pneumonia and acute otitis media (AOM) cases, and consumption of resources were derived from a large multicenter single-blind clinical study (results published) of vaccinated versus unvaccinated Italian children. Vaccinated children were administered 3 doses of PCV at 3, 5 and 11 months of age; Pnc morbidity was recorded until the 30th month of age. Economic analysis was performed in the perspective of the third party payer, considering direct costs (vaccine doses, administration costs, drugs, visits and hospitalisations for management of Pnc disease complications); unit cost of resources (2006 values) was retrieved from national reimbursement tariff lists and other published sources. **RESULTS:** The cost of vaccination was calculated as €133/patient; cost of pneumonia and AOM were calculated as €2258 and €31 per case. Vaccination of the whole newborns population of Lombardy would avoid about 6700 cases of AOM and 2700 cases of pneumonia. The economic effect of vaccination would be a net saving, ranging from €million 1.0 to 0.8 and 0.5 for respectively 100%, 80% and 50% vaccination coverage. These savings may be underestimated when considering the economic effects on cases of meningitis, the extension of vaccination benefits after the second year of age in the vaccinated infants and the effect of herd immunity on total population. **CONCLUSION:** Our analysis suggests that the use of PCV in infants is likely to be economically justified due to savings from pneumonia and AOM cases averted, in the population of newborns of Lombardy.

IN2

EUROPEAN SURVEILLANCE OF ANTIMICROBIAL CONSUMPTION (ESAC): DEVELOPING VALID ANTIBIOTIC PRESCRIBING QUALITY INDICATORS FOR AMBULATORY CARE

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OBJECTIVES: Indicators to measure the quality of health care are increasingly being developed and used both by health care professionals and policy makers. In the context of increasing costs related to antimicrobial use and resistance we aimed to develop valid antibiotic prescribing quality indicators for ambulatory care, producible on the basis of present ESAC (www.ua.ac.be/ESAC) data on antibiotic utilisation. **METHODS:** Experts from 15 countries participating in a European Science Foundation workshop in September 2005 proposed a set of 24 indicators and subsequently scored these indicators for their relevance to controlling antimicrobial resistance, patient health benefit, prescription cost-effectiveness and public health policy making using a scale ranging from 1 (= completely disagree), over 5 (= uncertain) to 9 (= completely agree). The scores were processed according to the UCLA-RAND appropriateness method and each indicator was judged valid if there was consensus and the median score was not within the 1–6 interval. **RESULTS:** Twenty-two participants scored. Nine indicators were rated as valid antibiotic prescribing indicators on all four dimensions and three extra for their relevance at least to prescription cost-effectiveness. The 2004 indicator values of a valid set of 12 quality indicators of cost-effective antibiotic utilsation are available for 28 individual countries. The most informative indicator "total outpatient use" varied more than threefold between the countries with the highest (33.4 DDD per 1000 inhabitants per day (DID) in Greece) and lowest (9.2 DID in Russia) use. **CONCLUSIONS:** In line with the main objectives of antimicrobial use surveillance at the European level, this subset can be used to describe antibiotic use in ambulatory care in order to assess the quality of antibiotic prescribing and its cost-effectiveness. The indicator values allow individual countries to position themselves and to define their own benchmark,