Bayesian regression models, which are more flexible and are simple to implement in freely available software. RESULTS: Using health outcomes research examples for illustration in each case, we describe common methodology issues arising from use of these methods, such as when small numbers of trials are analysed, when unequal trial sizes are included and when excess variability between trials (or heterogeneity) is encountered. CONCLUSIONS: For the methods considered, we offer possible solutions, make recommendations for their use and point out situations in which caution should be exercised.

EVALUATING THE DIFFERENCE BETWEEN AVERAGE WHOLESALE PRICE AND WHOLESALE ACQUISITION COST FOR PHARMACEUTICALS IN THE UNITED STATES
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OBJECTIVES: 1) To examine the percent difference between average wholesale price (AWP) and wholesale acquisition cost (WAC) for pharmaceuticals in the United States, accounting for patent status and manufacturer type, and 2) to evaluate the relationship between brand manufacturers and relabelers.
METHODS: Data for this study came from the Master Drug Data Base (MDDB), which is a proprietary drug file containing pricing information for all prescription and non-prescription products available in the US. The percent difference between AWP and WAC for prescription pharmaceuticals was compared on a variety of facets, including single source, type of manufacturer (original or repackager). The difference was expressed as a percentage of AWP (a commonly used method for reimbursing pharmacies in the US). We also compared the AWP among brand name manufacturers and relabelers (who repackage brand name pharmaceuticals produced by the original manufacturer).
RESULTS: A total of 23,607 unique drug products were included in the analysis examining AWP and WAC. The mean percent difference for brand name pharmaceuticals was 0.23 + 0.11, as compared to 0.44 + 0.26, p < 0.001. Brand name drugs that were available from multiple companies had a mean difference of 0.25 + 0.14, compared to 0.20 + 0.05 for single source products (p < 0.001). The median AWP for brand name manufacturers was 3.04 per unit, compared to 3.11 per unit for relabelers. CONCLUSION: This study documents the magnitude of well-known differences between AWP and WAC for brand name and generic products. Further, branded products produced by more than one manufacturer will have larger differences between AWP and WAC than single source products. The findings suggest the need for analysts to critically evaluate the use of AWP for determining product costs in the US and substantial differences exist between single source and multiple source products. A more transparent and accurate pricing system is needed for economic analyses in the US.

ECONOMIC EVALUATION OF MEDICAL DEVICES IN FRANCE: A CHALLENGE FOR HEALTH ECONOMISTS
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OBJECTIVES: Pharmacoeconomic evaluation activities have grown rapidly in recent years, but few economic evaluations have focused on Medical Devices (MD). This study addresses the barriers to conducting economic evaluations of MD, in comparison with pharmacoeconomic evaluations, in order to develop a framework for MD economic evaluation. METHODS: First, we studied the differences between MD and drugs that possibly impact on the completion of economic evaluations. Then, we analyzed items of the French Guidelines for Economic Evaluations of Health Care Technologies developed by the “Collège des Economistes de la Santé” [http://www.ces-asso.org/docs/France_Guidelines_HE_Evaluation.PDF] that might be barriers to the completion of MD economic evaluations, as compared to drugs, and we developed suggestions to overcome these barriers. RESULTS: In this abstract we present three of eight barriers to performing economic evaluations of MD. The first one relates to the feasibility of clinical trials, e.g. inadequacy of “placebo” and “double blinding” for MD testing and difficulty to include large numbers of patients. We suggest performing comparative studies for assessing clinical outcomes to be included in economic evaluations and to discuss potential bias. Secondly, MD is developed by engineers who are used to assessing technical performance, but not clinical and economic outcomes. We propose setting up collaborations between engineers, health care professionals and health economists from the very beginning of MD development. Besides, MD effectiveness often depends on the operator (health care professional or patient) and may change over time, when the operator gains experience. Health economists must, therefore, analyse the transferrability of economic evaluation results from one setting to another and over time. CONCLUSION: We recommend setting up multidisciplinary groups of engineers,
health care professionals and health economists from the beginning of MD development; and defining MD to be evaluated in priority, on which economic evaluation methods should be tested before being applied to others.

**PMC24**

**USE OF PHARMACOECONOMICS/HEALTH ECONOMIC TOOL (PE/HE) IN LOCAL HEALTH CARE DECISION MAKING (DM)**

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**OBJECTIVE:** To evaluate the basic knowledge level of DM (General manager of the Hospital-GMH- and Chief of clinical service-SCS-) about the application of PE/HE tool as influence factors in decision make as well as main advantages and obstacles. **METHODS:** A transversal survey was performing. In a not related forum, DM was invited to complete a self-report questionnaire about utilization of concepts of PE/HE in local health care decision make. The main inclusion criteria were the DM taken part in the process of evaluation inclusions of drugs on the basic formulary. Descriptive and multivariate analysis test were applied. **RESULTS:** A total of 139 questionnaires were included for the analysis. Male 76.98%, the mean of (SD): age 48.28 (+6.35), time of labour experience 19.5 (+7.02). The 30.22% was SCS and 14.39% were GMH. The more important characteristics for inclusions of drugs on the basic formulary are efficacy (82.73%) and safety and tolerability (76.94%). The PE/HE was fifth (64.03%). 44.60% had training in PE/HE topics. Cost-benefit was the concept mentioned more frequently (73.54%). The 68.35% used PE/HE for inclusions of drugs on the basic formulary. The probability of using PE/HE is 3.97 times stolen high if DM has taken PE/HE course. The perception of the group of the advantages de PE/HE help them to optimize the basic formulary. The probability of using PE/HE is 3.97 times stolen high if DM has taken PE/HE course. The perception of the group of the advantages de PE/HE help them to optimize the basic formulary. The probability of using PE/HE is 3.97 times stolen high if DM has taken PE/HE course. **CONCLUSIONS:** It is important to strengthen the knowledge and utilization of the PE/HE tools in Mexican DM.

**PMC25**

**ANALYSIS OF QUALITY OF LIFE DATA FROM DIFFERENT UTILITY INSTRUMENTS—AN EXAMPLE USING IMPUTATION**

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**OBJECTIVES:** Utilities are increasingly used to measure quality of life (QoL) for health states, and a variety of instruments can be used for this purpose. When QoL measures for different groups are obtained using different instruments, comparing summary statistics formally is difficult and there is nothing described in the methodology or applied literature. In this presentation we propose a relatively simple approach for comparing QoL mean scores from EuroQol and Aqol questionnaires indirectly when this situation is encountered, which leads to a result equivalent to that of a t-test. **METHODS:** Using an example from a utility study for illustration, we describe a method based on multiple imputation (MI), an approach commonly used to deal with missing data. From an estimate of the correlation between the total mean scores, we describe how simple linear regression can be used to obtain imputed values of EuroQol scores from Aqol scores. The multiple imputation approach then offers simple techniques to obtain pooled estimates of mean difference and variance on the EuroQol scale.

**RESULTS:** We show how the resulting data can be used in a simple way to generate a valid t-test statistic on the same QoL scale. We then briefly discuss the strengths and weaknesses of this approach from the point of view of QoL measures as well as methodology. **CONCLUSIONS:** The approach we present can be used to compare data from different QoL instruments. We summarise the circumstances under which such comparisons would be valid, and also highlight situations when this approach should not be used.

**PMC26**

**DEVELOPMENT AND VALIDATION OF A DUTCH VERSION OF THE LONDON HANDICAP SCALE**

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**OBJECTIVES:** To describe the development and validation of a Dutch version of the London Handicap Scale (DLHS). This questionnaire was based on the London Handicap Scale, a valid and reliable utility instrument for measuring social participation in adults. **METHODS:** The DLHS was tested in 803 adults with a questionnaire consisting of the DLHS itself, the Impact on Participation and Autonomy questionnaire (IPA), the Dutch version of the EuroQol EQ-5D and questions concerning e.g. chronic diseases, use of medical devices. The study population consisted of patients with rheumatoid arthritis, car/asthma, epilepsy, larynchetomy and multiple sclerosis. **RESULTS:** Content validation, evaluated by relating the scores on the dimensions of the DLHS and the number of chronic diseases was satisfactory. Conceptual validation was shown by large (or some moderate, almost large) correlations of predefined pairs of the DLHS dimensions with domains of the IPA. Correlations between the DLHS sumscore and the IPA subscales were considerably larger than corresponding correlations between the EQ-5D and the IPA subscales, indicating a good concurrent validity of the DLHS. The ability of the DLHS to discriminate between various subgroups of chronically ill persons five criteria was shown by correlating the DLHS sumscore with five predefined criteria. **CONCLUSIONS:** Based on this evaluation the questionnaire seems feasible and valid for assessing differences between different subgroups of chronically ill or disabled persons in The Netherlands.

**PMC27**

**THE DEVELOPMENT OF A TREATMENT SATISFACTION QUESTIONNAIRE FOR IRON OVERLOAD (IO) PATIENTS ON CHELATION THERAPY (CT)**

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**OBJECTIVES:** Desferal (DFO), the most common CT for IO, requires infusions of 8–12 hours, 5–7 days per week. Oral formulations are in development. Consequences of the high burden of current chelation therapy with Desferal are poor treatment adherence and satisfaction potentially leading to sub-optimal clinical outcome. However, CT-specific satisfaction questionnaires have not been developed. **METHODS:** Five steps were taken to develop the satisfaction questionnaire: literature review, patient interviews, clinician interviews, item generation and content validity testing. Three IO expert interviews and four patient interview transcripts were reviewed to assess satisfaction with DFO and reactions to a hypothetical oral CT. Items were developed based on these steps and tested in nine patients