PERSONAL DRUG UTILIZATION REPORT (PDUR)—A CONTRIBUTION TO COST REDUCTION AND PATIENT EMPOWERMENT
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OBJECTIVES: The lack of transparency in health care is one of the major obstacles to ensure rational and cost-effective use of health care resources. Reduction of costs for drugs is an important challenge for the statutory sickness funds in Germany. The Techniker Krankenkasse (TK) as one of the largest statutory sickness funds pays special attention to this development by offering an individualized service to their insures called “Personal Drug Utilization Report” (PDUR). This service informs patients about their drug use behaviors and is expected to discuss either with the physician or the pharmacist. PDUR aims to: 1) Improve patients’ knowledge about their drug utilization; 2) influence their behaviors; 3) contribute to patients’ active participation in the medical decision process; and 4) strengthen patients’ compliance. METHODS: Based on pharmacy claims data, the patients receive their PDUR upon request that comprises all drugs and medical devices prescribed by a physician and dispensed by community pharmacies. Currently, PDUR covers the prescription data of the last 24 months and lists following items: product name, dispensing date, dispensing pharmacies, co-prescription data of the last 24 months and lists following items: dispensed by community pharmacies. Currently, PDUR covers the prescription data of the last 24 months and lists following items: product name, dispensing date, dispensing pharmacies, co-payments, central pharmaceutical number. RESULTS: PDUR has found a wide acceptance with the TK insurees: from August, 2003 to May, 2004 50,000 (17.9% of all eligible patients for this service) asked for their individual PDUR. CONCLUSIONS: Expanding health-orientated services, elaborating drug information systems and strengthening the patient role in the health care system are of importance for TK. The high-grade of acceptance shows that PDUR fits the patient’s needs and expectations. PDUR is considered as a first module to implement other tools like an electronic patient dossier and will be supplemented by other health-related services. In the future, all PDUR will be accompanied by a satisfaction survey. First results of a health economic evaluation are expected for the end of this year.

WEIGHING DIAGNOSES IN EVALUATION STUDIES WITH AN APPLICATION TO SYCONE
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OBJECTIVES: It is difficult to assess the efficiency of diagnostic strategies without knowledge of the outcome of subsequent treatment. This is particularly true for strategies that aim to identify various diagnoses, each of which leading to a different treatment. We propose a methodology for weighing different diagnoses, illustrated by a diagnostic study of syncope. METHODS: After listing all diagnoses (n=27) that might explain the occurrences of syncope, we first applied the rectangular grid technique of Kelly’s personal construct theory to a core group of internists, a neurologist and a cardiologist to produce assessment criteria that are relevant for the weighing of diagnoses. Secondly, we invited an extended expert panel of 11 specialists to score the relevance of each criterion on a 0–10 visual analogue scale and, subsequently, to rank each diagnosis at each criterion on a 0–100 scale. The third step consists of calculating the summed products of the criterion relevance scores and the diagnosis rank scores at each criterion for each diagnosis separately to derive diagnosis specific weights. RESULTS: The core specialist group identified eight criteria for the weighing of syncope diagnoses. The criteria were, by descending order of relevance: mortality (7.4), treatability (6.6), quality of life (5.8), prognosis (5.4), frequency of episodes (5.1), presence of presyncope (4.5), treatment costs (3.3), and prevalence (3.0). The most important diagnoses were secondary (2432) and primary (2407) autonomic failure syndromes, acute aortic dissection (2266), and obstructive cardiomyopathy (2156). The least important ones were hyperventilation with hypocapnia (1296) and volume depletion (1152). CONCLUSIONS: The presented methodology successfully generated diagnosis specific weights that can be used for the evaluation of diagnostic strategies during decision modeling. The methodology will further be strengthened by an expert panel consensus meeting between the second and third steps to clarify and minimize score and ranking differences.

VISUAL ANALogue SCALES: Are the elicited preferences analogue?
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OBJECTIVES: This study compared the reliability and feasibility of three different versions of VAS on socioeconomic heterogeneous groups in a developing country. METHODS: Ten health states were described and applied on forty adults with mean age 33. In the first version, 10 cubes were placed against health states, and respondents were requested to remove the number of cubes equivalent to loss in health associated with the state with ten cubes equivalent to full health and zero cube equivalent to death. In the second version, they had the conventional VAS and were requested to point at the scale. Thirdly, respondents were requested to pick from a collection of cubes the number equivalent to each health state with ten cubes equal to death and no cube being equivalent to full health. Mean explanation and valuation times were 5 and 18 minutes respectively. Thirteen percent of the respondents had problems understanding the first version of the instrument. RESULTS: The standard deviation of the elicited values with the second version was highest for all the disease cases (Disease: Std{1st, 2nd, 3rd version}; Epilepsy: Std{0.25, 0.28, 0.23}, Bronchitis: Std{0.20, 0.27, 0.22}, Dental Pain: Std{0.21, 0.23, 0.18}, Vertigo: Std{0.17, 0.23, 0.17}, Madness: Std{0.29, 0.32, 0.28}, etc). ANOVA procedure showed that mean scores obtained using the different versions were statistically different for eight out of the ten diseases (Epilepsy <0.0003, Bronchitis <0.0012, Dental Pain <0.0165, Vertigo <0.0001, Madness <0.8321), etc). CONCLUSIONS: In comparing the preferences elicited with VAS, caution should be exercised as different modifications of the instrument were demonstrated to yield different values. In the elicitation process, the alternative versions of VAS may have allowed the incorporation of other values which lacked with the conventional VAS.

THERE’S NO F IN UTILITY
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OBJECTIVES: It is generally held that quality-adjustment weights used to compute QALYs must be elicited using utilities. This paper challenges that orthodoxy in three ways. METHODS: Firstly, the legitimacy of cardinal utility measurement itself is questioned. The absence of a single standard method for eliciting utilities and the divergence of results obtained by variants of techniques such as Standard Gamble and Time Trade-Off provides evidence of the non-unique status of utility measurement. The failure to identify an ex post test of the status of utility measurement means that it is impossible even to
test the claim that any set of values are in fact utility weights. Secondly, quality-adjustment weights play a crucial role in determining cost-utility ratios. Different weights are elicited when different utility measurement techniques are used, so that cost-utility ratios can be susceptible to systematic bias depending upon the choice of method used. Examples of this weakness are provided from the published literature and reveal the extent to which cost/QALY ratios can vary in the analysis of a single intervention. Finally, the paper argues for a less technically demanding approach to the determination of preferences in the valuation of health. RESULTS: It specifies the minimum requirements for any quality-adjustment index and proposes the use of stated preference methods that have an established theoretical basis but that are also grounded in the practical day-to-day experiences of ordinary people. The case is demonstrated using VAS data collected in a UK national postal survey (n = 682) designed to establish values for EQ-5D health states but where paired comparisons methods have been used to establish health state values. CONCLUSIONS: The paper concludes that there is no basis for the continued reliance on utility weights in calculating cost/QALY ratios.

**STATISTICAL ISSUES IN DISCRETE CHOICE MODELLING**

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Discrete choice models are used to elicit preference data from patients, medical and allied healthcare experts, and representative community samples. The resulting data are used in economic evaluation studies to derive health utility values. In most reported studies, statistical methodology issues are usually glossed over and standard assumptions are made. However, statistical properties of discrete choice models present some interesting challenges to these more traditional views. OBJECTIVES: In this presentation we focus on two areas fundamental to the conduct of any discrete choice study: the use of orthogonal designs in experimental design and interpretation of model results, and highlight some misconceptions surrounding their current use. METHODS: More specifically, we highlight, with examples, that important properties of orthogonal designs assumed to underlie methods used in discrete choice studies don’t hold in general. RESULTS: We also discuss implications of applying the usual random effects or conditional models to discrete choice data. In both cases we discuss alternative approaches. CONCLUSIONS: The intention of this presentation is to inform researchers about these potential shortcomings in statistical methodology which is widely applied to discrete choice studies, and to encourage the development and use of alternative methods which may improve validity.

**DEVELOPMENT OF A NUTRITION RELATED QUALITY OF LIFE SCALE IN CHILDREN**

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OBJECTIVES: To develop a scale of Nutrition Related Quality of Life (NRQoL) in healthy children of 6 to 12 years old to be used in nutritional interventional studies in Spain. METHODS: The process of development of the DANN scale (Escala DAnone de calidad de vida relacionada con la Nutrición en Niños/as) included a literature review to define potential dimensions, a qualitative research phase for the elicitation of concepts including interviews to clinicians, psychologists, Focus Group with the target population and expert meetings for the item generation (version one). The face and content validity was analyzed by means of a cognitive debriefing process (version two). The quantitative research phase consisted of an evaluation of the scale in 123 children followed by a standard item reduction (version 3). This new version was administered to 500 children from different sites in Spain to evaluate the psychometric properties (reliability, construct-related and content-related validity) of the final version. RESULTS: The internal consistency of the DANN self-administered scale appears satisfactory (Cronbach’s alpha = 0.78). The underlying dimension structure of the scale was conducted by a principal component analysis with varimax rotation. The three first dimensions explained 42% of the total variance and conceptually corresponded to the dimensions initially defined (construct-related validity). The first dimension gathers the attitudes and beliefs related with healthy nutrition, consisting of ten items (23%). The second dimension is related to the physical well-being and includes six items (11%). The third dimension is related to the psychos well-being and contains three