S2 Oral Presentations

**Results.** We highlight three key findings. First, understanding patient preferences is crucial when designing services, and providers sometimes underestimate behavioural barriers and overestimate the extent to which people are motivated simply by health benefits. Optimism is often driven by evidence showing high acceptability, but when preference structures are incorporated in intervention design, there are important insights into how patients plan to utilize services. Second, trade-offs matter in determining which characteristics are perceived to be most important to patients - a key strength of the DCE methodology. Understanding of these trade-offs can help prioritize which characteristics of interventions to target. Finally, disentangling the effect of different characteristics of service delivery models on preferences is important for rethinking how interventions are delivered. If services are designed to better align with preferences, implementers can ensure new interventions have the desired effect on health and economic outcomes.

**Conclusions.** These findings highlight the value of behavioural economic approaches for investigating preferences for health interventions and providing insights into the demand for services, which must feed into the HTA analyses. Incorporating DCEs into HTA is inexpensive and provides robust data for improving HTA.

## OP03 Patient Characteristics Affect Their Treatment Choice: A Discrete Choice Experiment With Breast Cancer Patients In Six European Countries

Eugena Stamuli (eugena.stamuli@pharmecons.com), Sorcha Corry and Petter Foss

**Introduction.** The evolution of breast cancer treatments over the last decade has resulted in tailored therapies for the different types and stages of breast cancer. Each treatment has a profile of benefits and adverse effects which are taken into consideration when planning a treatment pathway. The objective of this study is to examine whether patients' preferences are in line with what is considered important from policy-makers viewpoint.

Methods. An online discrete choice experiment (DCE) was conducted in six European countries (France, Germany, Ireland, Poland, Spain, UK) with breast cancer (BC) patients. The DCE comprised of six attributes: overall survival (OS), hyperglycaemia, rash, pain, functional well-being (FWB) and out-of-pocket payment (OOP). Sixteen choice sets with two hypothetical treatments and a "no treatment" option were presented. Sociodemographic and disease related data were collected. Heteroscedastic conditional and mixed logistic models accounted for scale and preference heterogeneity between countries and patients respectively. Latent class analysis categorized patients in classes. Marginal rates of substitution (MRS) were estimated for OOP versus the rest of attributes to establish the ranking of preferences for each attribute.

**Results.** Two hundred and forty-seven patients with advanced or metastatic BC and 314 with early-stage BC responded. Forty-nine

percent of patients were less than 44 years old and 65 percent had completed university education. The MRS of the analysis demonstrated that "severe pain" is the highest dis-preferred attribute level, followed by "severe impairment in FWB" and OS. Four classes of patients as "decision-makers" were identified. Additionally, there is sensitivity in preferences for both levels of pain and FWB depending on the stage of the disease.

**Conclusions.** This study suggests that there is heterogeneity in treatment preferences of breast cancer patients depending on their sociodemographic and disease related characteristics. In combination with clinical guidelines, patient preferences can support the selection and tailoring of treatment options.

## OP04 Methodological Challenges Of Assessing An Evolving Technology: The Cochlear Implant For Deaf People

Hugo Nijmeijer (hugo.nijmeijer@radboudumc.nl), Hans Groenewoud, Emmanuel Mylanus, André Goedegebure, Wendy Huinck and Gert Jan van der Wilt

**Introduction.** When Cochlear implants (CI) were first introduced, only postlingually, profoundly hearing impaired individuals were implanted unilaterally. As experience grew, eligibility was followed by prelingual deaf children, and a second contralateral CI was being considered. Due to surgical and technological improvements, eligibility criteria for CI are now shifting, encompassing patients with more residual hearing. We aimed to explore, *ex ante*, whether such shift is warranted.

**Methods.** A dynamic, population-based Markov modeling study was conducted. Model parameters were based on available evidence, expert opinion, and calibration. The model mimics Dutch demographic development in three age categories over a period of 20 years. Impact of changing eligibility was explored in terms of number of CI recipients, costs, quality of life and cost-effectiveness from a societal perspective.

**Results.** If those with severe hearing loss would qualify and opt for CI similar to those with profound hearing loss, this would lead to a fourfold increase of CI recipients (from 8,815 to 35,630) over a 20 year period, resulting in an increase in costs (EUR 550 million) and QALYs (54,000), with an Incremental Cost Utility Ratio of EUR 10,771/QALY (2.5–97.5 percentiles: 1,252–23,171).

Conclusions. Results suggest that expected health gains could be such, that the investment may be considered cost-effective against the backdrop of currently prevailing criteria. However, for this, a substantial increase in operating capacity, follow-up care and rehabilitation are required. Further inquiries are needed to investigate whether such increased capacity can be achieved, to ensure equitable access to those services.