devices to patients may have a positive impact on treatment outcomes. The aim of this study was to determine the preferences of MS patients for attributes of self-injection devices. METHODS: A discrete choice experiment (DCE) survey was developed on the basis of a review of published literature. The attributes identified for inclusion in the survey were: ease of use, comfort of use, presence of additional functions, needle visibility, practicality and efficacy. Choice sets were presented as pairs of hypothetical treatments, with two attributes fixed across the choice and the third varying. One hundred and one device-using MS patients completed the survey online. Analysis was conducted using a mixed-logit approach. RESULTS: Analysis of the DCE data revealed that all attributes significantly predicted treatment choice. As anticipated, efficacy exhibited the strongest effect, with treatment selection and the trade-off for understanding the magnitude of impact for the other attributes. Reducing the discomfort associated with device use and eliminating the necessity for assembly or drug reconstitution were highly valued by patients. The addition of reminder and time-stamping functions, improved needlestick injury prevention and a reduction in device size were secondary concerns but still deemed desirable. CONCLUSIONS: Although efficacy is of primary importance to MS patients, the characteristics of drug delivery devices can play an important role in treatment decision-making. The findings suggest that there is significant potential value in developing self-injection devices that are not only efficacious but also convenient and comfortable to use. Reducing barriers to adherence could potentially translate into improved treatment outcomes for patients with MS.

**PMID44**

**ASSESSING PERFORMANCE FOLLOWING PRIMARY TOTAL KNEE ARTHROPLASTY: DEVELOPMENT OF THE PATIENT’S KNEE IMPLANT PERFORMANCE (PKIP) SCALE**

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**OBJECTIVES:** While a variety of knee-specific instruments currently exist, no patient-reported outcome (PRO) measure correlates functionality with improved stability, motion, satisfaction, and confidence. The objective of our study was to develop: (i) a new identifiable gap in available PROs assessing this phenomenon of a “normal” knee following primary TKA. METHODS: A conceptual model linking the impact of clinical mechanics to hypothesized functional outcomes was generated following a literature review of available assessment tools. Participants aged 18 to 80 who had undergone TKA within the past 10 to 18 months were identified through clinical sites to participate in Phase 1) focus groups, or Phase 2) in-depth interviews. Participants were asked to describe experiences with their knee replacement and general questions about how their knee feels now, since they had the surgery, followed by cognitive debriefing of the items. Specific inclusion and exclusion criteria were developed in addition to a semi-structured interview guide. Content comparative analysis was employed to identify key points and compared across all results to observe themes in participant experiences. RESULTS: Results from the first phase of the project indicated that the concepts of confidence, stability, and satisfaction in their replacement knee when performing activities requiring certain motions were felt to be distinct from each other and important in the patients’ assessment of their TKA. Phase 2 efforts yielded a final version of the PKIP scale containing 9 items assessing the broader concepts of stability, confidence and satisfaction in association with activities. Both a pre- and post-surgical version of the measure were created. CONCLUSIONS: Results of this qualitative study support the use of the PKIP to assess performance following primary TKA. Psychometric evaluation of the PKIP is planned.

**PMID45**

**VARIATION IN HEALTH RELATED QUALITY OF LIFE IMPROVEMENT AFTER PERCUTANEOUS CORONARY INTERVENTION**

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**OBJECTIVES:** It is not clearly established whether percutaneous coronary intervention (PCI) provides similar incremental benefit in terms of health related quality of life (HRQoL) among all patients. METHODS: We analysed 793 consecutive patients undergoing PCI within the past 10 to 18 months who were identified through clinical sites to participate in a phase 1 focus group. PCI quality assessed as ‘normal’ knee following primary TKA. RESULTS: from the first phase of the project indicated that the concepts of confidence, stability, and satisfaction in their replacement knee when performing activities requiring certain motions were felt to be distinct from each other and important in the patients’ assessment of their TKA. Phase 2 efforts yielded a final version of the PKIP scale containing 9 items assessing the broader concepts of stability, confidence and satisfaction in association with activities. Both a pre- and post-surgical version of the measure were created. CONCLUSIONS: Results of this qualitative study support the use of the PKIP to assess performance following primary TKA. Psychometric evaluation of the PKIP is planned.

**PMID46**

**DOCTOR KNOWS BEST: THE EFFECT OF YEA-SAYING BIAS ON WILLINGNESS TO PAY IN CHOICE-FORMAT CONJUNCT ANALYSIS STUDIES**

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**OBJECTIVES:** To determine the effect of adjusting colorectal-cancer (CRC) screening willingness-to-pay (WTP) estimates for uptake bias from yea-saying in a choice-format conjunct-analysis study. Yea-saying refers to a tendency to express agreement with the view of one’s actual or perceived preferences when responding to hypothetical questions. Screening tests offering an opportunity to compare stated and actual uptake rates. METHODS: Adults aged 45–70 years with no history of CRC and physicians from the United States and Canada completed a web-enabled choice-format conjunct survey that presented choice profiles with attributes included test type, frequency, accuracy, and cost. Each test-preference question was followed by a question asking if the respondent preferred no screening to the chosen test. A bivariate probit model combined data from both questions. Predicted WTP conditional on purchasing a test and societal expected WTP adjusted for uptake probability were estimated for both samples. RESULTS: A total of 501 and 1,087 adults from Canada and the United States respectively, and 100 physicians from both countries completed the survey. Patients opted for a screening test in about 70% of the questions. Physicians expected their patients to opt for a screening test only 50% of the time, which is the same as the observed uptake rate. For any given testing option, physicians’ surrogate WTP values were significantly less than patients’ values. Moreover, patients had significantly lower divergences between conditional and expected WTP values. The US patient expected WTP for colonoscopy, adjusted for yea-saying bias in predicted uptake, was $485, which was 29% smaller than the unadjusted expected WTP. CONCLUSIONS: If stated-preference subjects choose testing more frequently than they would if actually offered the hypothetical alternatives, the upwardly biased uptake estimates distort societal WTP measures. Minimizing incentives for yea-saying, detecting potential omitted variables, and adjusting resulting WTP estimates is a high priority for state-based research preference.

**MEDICAL DEVICE/DIAGNOSTICS – Health Care Use & Policy Studies**

**PMID47**

**USING HOSPITAL PAYMENTS TO ENCOURAGE THE COST-EFFECTIVE USE OF HEALTH TECHNOLOGY**

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**OBJECTIVES:** To explore the ways in which hospital payments can be used to encourage cost-effective use of health technology. METHODS: A survey of the development of hospital payment systems was conducted in 14 jurisdictions in order to ascertain if and how existing payment systems facilitate the adoption of new technologies, whether evidence of value (eg therapeutic benefit, cost-effectiveness) is considered when determining codes/tariffs, and in what ways payment systems could be adjusted to link payment levels more closely to evidence on value for money. RESULTS: Around 50% of the jurisdictions had developed their own payment classifications, as opposed to importing/adapting a system from elsewhere. A minority had created new codes/tariffs outside of a general update in response to a new technology. Three jurisdictions used evidence of value when creating new codes/tariffs, although they tended to only consider therapeutic benefit, not cost-effectiveness. The main barriers to using evidence in creating new codes/tariffs were the lack of a clear mechanism to do so, lack of standardization in the collection, collation, analysis, and cost data and/or unavailable cost and/or effect data. Around 70% of jurisdictions had used special payments, outside of the standard codes/tariffs, in response to specific new technologies and 50% used evidence of value when setting payment levels. In the case of special payments, consideration of evidence of both therapeutic benefit and cost-effectiveness was more common. Overall, respondents felt that hospital payment systems had only a modest to moderate impact on the uptake of new technologies, due primarily to the time taken in establishing new codes/tariffs, or negotiating special payments. CONCLUSIONS: Hospital payment systems have the potential to encourage the cost-effective use of new health technologies. More attention, however, is needed regarding the procedures for updating codes/tariffs or negotiating special payments, and in particular the ways of considering evidence of value.

**PMID48**

**DO HTA REQUIREMENTS AND PROCUREMENT INCENTIVES IN MEDICAL DEVICES NEED RE-ALIGNING?**

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**OBJECTIVES:** This study evaluates the impact on market dynamics of applying existing Health Technology Assessment (HTA) methodologies to medical devices. METHODS: Using a case study on drug-eluting stents (DES), we examine whether the economic characteristics of medical devices introduce particular challenges to the application of HTA and whether the experience of DESs suggests directions for policy formulation. RESULTS: for a case study found a market that encouraged rapid competition, leading to value for the end user though price competition. The application of existing HTA methods has the potential to disrupt this dynamic and reduce the rewards of medical devices to innovators - through higher evidence competition, leading to value for the end user though price competition. The application of existing HTA methods has the potential to disrupt this dynamic and reduce the rewards of medical devices to innovators - through higher evidence competition, leading to value for the end user though price competition.