comprehend the underlying factors relating QOL, utility, and WTP.

QL2

CLINICAL IMPROVEMENT AND RESPONSIVENESS OF PHYSICAL FUNCTION MEASURES: TREATMENT WITH CTLA4IG (BMS-188667) IN PATIENTS WITH ACTIVE RHEUMATOID ARTHRITIS

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OBJECTIVES: To examine the treatment effect of CTLA4Ig on physical function and to evaluate the responsiveness of different domains of physical function compared to tender joint count, a highly sensitive efficacy measure for rheumatoid arthritis (RA). **METHODS:** In a randomized, double blind, placebo-controlled trial, 339 subjects with active RA receiving methotrexate (MTX) were randomized to 3 treatment arms (CTLA4Ig 2 or 10 mg/kg and placebo) given intravenously once monthly. The Modified Health Assessment Questionnaire (mHAQ) was used to assess physical function and was administered monthly. It consisted of questions assessing eight domains of physical function: dressing, arising, eating, walking, hygiene, reach, grip, and common activities. Mean change from baseline in the mHAQ scores were compared between the CTLA4Ig and the placebo groups. Relative efficiency of mHAQ domains were calculated as $(SES_{mHAQ} / SES_{tender\ joint\ count})^2$, with SES denotes standardized effect size. A relative efficiency >1 suggested that the domain was more efficient than the tender joint count in detecting the observed treatment effect. **RESULTS:** At 6 months, the mHAQ summary score improved 42% for the CTLA4Ig 10 mg/kg group compared to 14% for the placebo group. This improvement was considered to be clinically meaningful based on the commonly accepted threshold. Patients in the 10 mg/kg group also experienced statistically significant improvements compared to the placebo group in the following domains: eating (32% more improvement), hygiene (32% more), grip (24% more), dressing (20% more), and walking (16% more). Moreover, these physical domains were shown to be as responsive as the tender joint count to detect a treatment effect, with relative efficiencies close to one. **CONCLUSIONS:** treatment with CTLA4Ig significantly improved physical function in patients with active RA, especially in areas related to eating, hygiene, grip, and walking ability. Measures in physical function are efficient in detecting clinical improvements important to patients.

QL3

DIABETIC PATIENTS' WILLINGNESS TO PAY FOR DIABETES EDUCATION BY PHARMACISTS: VALIDITY OF CONTINGENT VALUATION METHOD

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OBJECTIVES: This study was conducted to measure diabetic patients' willingness-to-pay (WTP) for diabetes education provided by pharmacists utilizing the contingent valuation method, to determine factors which influence patients' WTP, and to test starting point bias and scope effects. **METHODS:** Diabetic patients, randomly selected at 2 hospital endocrinology clinics, were interviewed to measure their WTP for education resulting in 3 hypothetical risk-reductions in diabetic complications (reduction from 75% without education to 37.5% with education, 50%®25%, and 25%®12.5%) using a bidding game with randomly assigned starting amounts ($10/$40). Sample mean (SM) and mean based on log-normal distribution (LNM) were calculated. Mean WTP was calculated using 2-part model (PM) with a smear estimator, and Heckman 2-stage model (HM) for sample selection correction, which were further used to determine significant factors influencing WTP amount. **RESULTS:** A total of 283 patients were interviewed. Patients' mean age and household income was 53.5 years and $60,202 respectively. In total, 59% of patients were willing-to-pay. SMs were $36 ± $49 for 75%→37.5%; $35 ± $50 for 50%→25%; and $26 ± $42 for 25%→12.5%. SMs were similar to LNMs. Means based on HM were $41 ± $23 for the 75%→37.5%, $38 ± $19 for 50%→25%; and $27 ± $16 for 25%→12.5%, which were nearly the same as means calculated based on PM. In HM model, patients were willing-to-pay significantly larger amounts as risk-reduction level increased (P < 0.001), as starting amount increased (P < 0.001), and if neuropathy was present (P < 0.001). Patients' age, race, hemoglobin A_{1c}, type of diabetes, and history of retinopathy were not significant factors in predicting WTP amount. **CONCLUSIONS:** Patients, on average, were willing-to-pay between $26 and $41 for pharmacist provided diabetes education, depending on risk reduction level (scope effect) and starting amounts (starting point bias). The contingent valuation method is useful for determining the economic value of pharmacists' education. Further investigations are recommended to elucidate factors influencing patients' WTP for a variety of other services.

QL4

SMOKING STATUS AND HEALTH-RELATED QUALITY OF LIFE (HRQOL): FINDINGS FROM THE BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS) DATA

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OBJECTIVES: Smoking is one of the leading causes of preventable mortality in the United States. The benefits of smoking cessation have been well documented, and understanding the relationship between smoking and