PMD76
ACUTE HEALTHCARE UTILIZATION PATTERNS AMONG PEOPLE WITH TYPE 2 DIABETES USING PROFESSIONAL CGM IN THE UNITED STATES
Sierra JA, Shah M, Vigersky R, Kaufman FR, Flores Z, Gill MS, Stoltenberg LS
Medtronic Diabetes, Northridge, CA, USA
OBJECTIVES: Diabetes treatment costs continue to grow and expand with U.S. expenditures exceeding $245 billion annually. Professional continuous glucose monitoring (pro CGM) has been used in individuals with type 2 diabetes to monitor glucose variability and assess diabetes therapy adjustments. This retrospective analysis quantified the one-year acute healthcare utilization of people with type 2 diabetes following pro CGM compared to those who did not did not receive pro CGM. **METHODS:** This analysis evaluated a large healthcare claims and lab dataset from the US, and identified people with type 2 diabetes, as well as individuals who used professional CGM as noted by CPT codes 95250 and 95251. The date of service for these codes served as the index date. Acute healthcare utilization (e.g. inpatient length of stay and emergency room visits) of those who had pro CGM was compared to a propensity-matched control cohort of those who did not have pro CGM for the following year. Sub-group analysis was conducted for patients who used pro CGM at least twice during the year and had an associated diabetes therapy change. **RESULTS:** For patients having a therapy change, there were significantly fewer number of inpatient stays (-0.10 less visits) and ER visits (-0.61 less ER, $p < 0.05$) among those who used pro CGM compared to those who did not use pro CGM. There was also a lower proportion of patients with any inpatient visit (6% fewer patients overall difference in difference, $p<0.05$). **CONCLUSIONS:** Pro CGM, when used in conjunction with a therapy change, is associated with significantly lower healthcare utilization. This implies the potential value of glycemic data to maximize appropriate therapy regimen selection for patients who may not be achieving their treatment goals. Healthcare systems should consider pro CGM as a method for optimizing treatment of people with type 2 diabetes.

PMD77
ULTRASOUND: A FAST LOW-COST TOOL FOR THE DIAGNOSIS OF RHEUMATOID ARTHRITIS IN A SPECIALIZED CENTER
Santos-Moreno P[1], Buitrago-Garcia D[2], Villarreal L[3], Alvis-Zakzuk N[4], Carrasquilla M[4], Alvis Guzman N[5]
[1]*Biomab, bogota, Colombia,* [2]*SIIES investigation and research, Colombia, bogota, Colombia,* [3]*Biomab, center for rheumatoid arthritis, bogota, Colombia,* [4]*Alzak Foundation, Cartagena, Colombia,* [5]*ALZAK Foundation- Universidad De La Costa, Barranquilla, Colombia*
OBJECTIVES: Ultrasound technology had considerable developments, becoming a safe and efficient alternative to complement the diagnosis of rheumatoid arthritis (RA). We aimed to evaluate the cost and effectiveness of ultrasound in the correct diagnosis of seronegative patients with presumptive RA in a real life setting. **METHODS:** We included patients with presumptive RA but negative rheumatoid factor and anti-CCP. The patient was evaluated by a rheumatologist expert in ultrasound; US studies were carried out with a Esaote MyLab Seven® US equipment. We calculated means and standard deviations for continuous variables and categorical variables were presented as percentages. We calculated the costs for each ultrasound and projected the cost-savings according to RA diagnosis. Costs were presented in US dollars at the official rate of exchange for December 2017. **RESULTS:** We included 120 patients with presumptive RA, 50% were female. Mean age was 58 ±13 years. We found that 25% of patients had erosions in hands, 39% had synovitis and 30% had power Doppler. Also, 2% had erosions in feet, 7% had synovitis and 6% had power Doppler. The costs for ultrasound per patient was USD$37, and for all patients USD$4.400. According to the cost savings, we avoided the use of MRI of hands and feet with a cost of USD$38.400 (USD$320 per/patient). Thus, we confirmed the diagnosis of RA in 50% of our patients. In the remaining patients we avoided the use of treatment for presumptive seronegative RA ranging between USD$64.140 (mean price for conventional DMARDs) to USD$507.480 (mean price for biological DMARDs). **CONCLUSIONS:** In a real life-setting, ultrasound has demonstrated to be a useful and low- cost tool that can complement clinical findings when the diagnosis for RA is complex. As was demonstrated, ultrasound can save resources to health systems due to the non-usage of expensive pharmacological therapy for RA.

MEDICAL DEVICES/DIAGNOSTICS - Patient-Reported Outcomes & Patient Preference Studies

PMD78
USING TIME TRADE-OFF (TTO) SURVEYS TO MEASURE HEALTH UTILITIES ASSOCIATED WITH DIFFERENT URINARY CATHETER INNOVATIONS
Igawa Y[1], Krassioukov A[2], Averbeck MA[3], Madersbacher H[4], Lloyd A[5], Sørensen J[6], Bøgelund M[7], Thiruchelvam N[8]
[1]*The University of Tokyo, Tokyo, Denmark,* [2]*University of British Columbia, Vancouver, Denmark,* [3]*Moinhos de Vento Hospital, Porto Alegre, Brazil,* [4]*Medical University Innsbruck, Innsbruck, Austria,* [5]*Acaster Lloyd Consulting Ltd., London, UK,* [6]*Coloplast A/S, Humlebæk, Denmark,* [7]*Incentive, Holte, Denmark,* [8]*Cambridge University Hospitals NHS Trust, Cambridge, UK*
OBJECTIVES: To use the Time Trade-Off (TTO) method to estimate health utilities for different intermittent catheter innovations and a support service related to the use of intermittent catheters. **METHODS:** To increase validity and avoid respondent fatigue bias three separate internet-based TTO surveys with vignettes were developed. Respondents represented the general public, were recruited from existing email panels and could participate in one survey only. The surveys were carried out in the UK/Canada. The first survey (UK only) focused on compact catheter design and the availability of a support service for users; the second survey on avoidance of potentially harmful phthalates in the catheter material (UK only) and the third survey on multiple-use catheters vs two types of one-time use catheters (UK and Canada). **RESULTS:** A total of 1846 respondents answered the three TTO surveys. Respondents from the UK estimated an incremental value of 0.032 [CI: 0.019-0.045] for catheters with compact design, 0.008 [CI: -0.002-0.017] for availability of a support service and 0.046 [CI: 0.032-0.061] for catheters not containing phthalates. Compared to multiple-use catheters, the one-time use catheters gained incremental values of 0.013 [CI: 0.003-0.024] for Canada and 0.023 [CI: 0.012-0.034] for UK and pre-lubricated one-time use catheters gained incremental values of 0.043 [CI: 0.029-0.057] for Canada and 0.052 [CI: 0.039-0.066] for UK. The utility values for the one-time use catheters were associated with the attributes of steps/time needed for catheterization, pain during catheterization and frequency of urinary tract infections (UTIs). **CONCLUSIONS:** The investigated attributes of compact catheter design, phthalates, steps/time needed, pain related to catheterization and frequency of UTIs have a significant impact on health utilities, which highlight the value of catheter innovations in these areas. No cut-off limit was applied to exclude extreme values and it would be relevant to explore the impact of outlier responses in future research.

PMD79
THAI ADULTS' PREFERENCES AND WILLINGNESS-TO-PAY FOR COLORECTAL CANCER SCREENING: A DISCRETE CHOICE EXPERIMENT
Phisalprapa P[1], Chaiyakunapruk N[2], Ngorsuraches S[3], Supakankunti S[1]
[1]*Faculty of Economics, Chulalongkorn University, Bangkok, Thailand,* [2]*Naresuan University, Phitsanulok, Thailand,* [3]*South Dakota State University, Brookings, SD, USA*
OBJECTIVES: To examine Thai adults' preferences and their willingness-to-pay (WTP) for colorectal cancer (CRC) screening. **METHODS:** A discrete choice experiment was conducted among screening-naïve adults aged 50-75 years in the outpatient department of a tertiary care hospital. Six CRC screening attributes, i.e., bowel preparation, pain, risk of complications, risk reduction of CRC-related mortality, screening interval, and out-of-pocket cost, from literature and patient interviews were used to develop a discrete choice experiment questionnaire. Each questionnaire was composed of six choice sets and each choice set contained those six attributes with different levels. Subjects were asked to choose one CRC screening alternative in each choice set. Multinomial logit model was used to determine relative preferences of each attribute and the WTP for all attributes and screening modalities were calculated. **RESULTS:** A total of 363 respondents was included in this study. Their average age was 63 years. All attributes, except pain, were statistically significant ($p<0.05$). The respondents preferred screening with less bowel preparation, no risk of complications, higher risk reduction of CRC-related mortality, longer screening interval, and lower cost. The respondents were willing to pay US$46 and US$44 for less bowel preparation and 10-year screening interval, respectively, and US$3 in exchange for every 1 % increased risk reduction of CRC-related mortality. The respondents were willing to pay for fecal immunochemical test (FIT), colonoscopy, barium enema, CT colonography, and flexible sigmoidoscopy US$244, US$184, US$181, US$149, and US$142, respectively. **CONCLUSIONS:** Bowel preparation, risk of complications, risk reduction of CRC-related mortality, screening interval, and cost influence the CRC screening preferences of Thai adults. They preferred FIT to other screening tests. Policy makers can use these findings to improve the success rate of CRC screening campaign.

PMD80
PATIENT AND CLINICIAN SATISFACTION WITH PHARMACOLOGICAL STRESS AGENTS (PSAS) USED IN SINGLE PHOTON EMISSION COMPUTERIZED TOMOGRAPHY MYOCARDIAL PERFUSION IMAGING (SPECT-MPI)
Shields AL[1], Hudgens S[2], Spalding J[3], Kitt TM[3], Ojo O[1], Kristy RM[4], Mathias A[1], Morrissey L[1], Litcher-Kelly L[1], Houle CR[3]
[1]*Adelphi Values, Boston, MA, USA,* [2]*Clinical Outcomes Solutions, Tucson, AZ, USA,* [3]*Astellas Pharma Global Development, Inc., Northbrook, IL, USA,* [4]*Astellas Pharma Global Development, Northbrook, IL, USA*
OBJECTIVES: This study assessed patient and clinician satisfaction with three pharmacological stress agents (PSAs)-- regadenoson (REG), adenosine (ADE) and dipyridamole (DIP)— used in single photon emission computerized tomography myocardial perfusion imaging (SPECT-MPI), a non-invasive imaging test commonly used for the diagnosis and assessment of coronary artery disease. **METHODS:** This multisite, non-interventional, non-randomized study involved patients undergoing PSA-facilitated SPECT-MPI and clinicians administering or assisting in the test. Patients completed two patient-reported outcome (PRO) questionnaires: the Patient Satisfaction Questionnaire (PSQ), to assess satisfaction with services provided at the site, and the Patient Satisfaction and Preference Questionnaire (PSPQ), to assess satisfaction specifically with the PSA. Clinicians completed one of two clinician-reported outcome (ClinRO) questionnaires: the Clinician Satisfaction and Preference Questionnaire (CSPQ; for physicians) or the modified CSPQ (mCSPQ; for nurses and technologists) to assess satisfaction utilizing a specific PSA. Differences on the PSPQ and PSQ between the PSAs were assessed using analysis of variance and Tukey tests. Differences on the CSPQ and mCSPQ with the PSAs were reported descriptively. **RESULTS:** Across 10 sites, 291 patients (n=147, 100, and 44 with REG, ADE and DIP, respectively), and 47 clinicians (physicians n=11; nurses/technologists n=36) participated. Patients receiving REG rated their satisfaction with services experienced at the site (PSQ) more favorably relative to those receiving ADE ($p<.05$). There were no significant pairwise differences for PSA-related Overall Satisfaction (PSPQ), but patients rated REG more favorably relative to ADE on Satisfaction with Administration ($p<.05$), and DIP more favorably relative to ADE for Visit Preparation ($p<.05$). Clinicians reported highest satisfaction for REG on Preparation, Administration, Monitor, Side Effects, and Overall Satisfaction domains of the CSPQ and mCSPQ. **CONCLUSIONS:** This study shows that clinicians and patients have quantifiable differences in satisfaction with PSAs. A cross-over clinical trial would be needed in order to measure actual preference between agents.

MEDICAL DEVICES/DIAGNOSTICS - Health Care Use & Policy Studies

PMD81
A DIGITAL HEALTH PLATFORM TO CREATE PERSONALIZED CARE EXPERIENCES FOR PATIENTS WITH CHRONIC DISEASE
Schultz A[1], Mehta J[2], Mehta S[2]
[1]*Partners Healthcare, Brookline, MA, USA,* [2]*KEVA Health, Lexington, MA, USA*