Poster Tour Guide Packet

Poster Session:	**In-Person and Virtual Poster Session 1**
Tour Name:	**Student Research Spotlight**
Tour Date/Time:	Monday, 7 November 2022, 2022, 12:30 - 13:15
Tour Area:	Area B, Hall X2, Level -2

Acceptance Code:	EE381
Board Number:	1B
Abstract Title:	Cost-Effectiveness Analysis of Atrial Fibrillation Screening in the Elderly Population of Taiwan
Presenting Author:	Yu-Hua (Iris) Fu

Abstract Body:

OBJECTIVES: Screening for undiagnosed AF can identify patients who could benefit from anticoagulant therapy and reduce the burden of ischemic stroke (IS) through early intervention. The aim of this study was to evaluate whether population screening for AF in Taiwan could be cost-effective from a government perspective.

METHODS: Our study was based on an AF population screening study that enrolled 23,572 Taiwanese adults tested by a single-lead electrocardiogram. A Markov decision-analysis model was constructed to simulate the lifelong outcomes and costs of a hypothetical cohort of 10,000 65-year-old individuals with and without one-off screening for AF. Clinical events considered included IS, intracranial hemorrhage, and death. Direct costs were estimated from a government perspective, and future costs and benefits were discounted at an annual rate of 3%. Deterministic and probabilistic sensitivity analyses were performed to assess model uncertainty. Threshold analyses were used to determine the optimal age for implementing screening.

RESULTS: In a hypothetical cohort of 10,000 individuals aged 65 years, one-off population screening for AF compared with no screening could detect 49 undiagnosed AF cases, increasing 26.19 quality-adjusted life years (QALYs) and preventing 22 ischemic strokes in the remaining lifetime with additional costs of 309,337 USD. The incremental cost-effectiveness ratio of screening versus no screening was USD 11,810 per QALY gained. The results were robust in all sensitivity analyses. One-way sensitivity analyses showed that the ICERs were most sensitive to the effectiveness of anticoagulants in IS prevention and the incidence of IS. In the probabilistic sensitivity analysis, 99.92% of iterations produced ICERs below the willingness-to-pay threshold of one GDP per QALY. Screening at the age of 80 resulted in the lowest cost per QALY gained (USD 10,144/QALY).

CONCLUSIONS: Screening for AF to detect undiagnosed AF in the elderly population can be a cost-effective intervention for stroke prevention in Taiwan.

Tour Guide's Questions for Starting Q&A (Each poster will have ~5 minutes for Q&A with attendees/Tour Guide)

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Acceptance Code:	EE604
Board Number:	2B
Abstract Title:	Cost-Benefit Analysis of the New Jersey Prescription Drug Monitoring Program
Presenting Author:	Andrew Peterson (Presenting for Rushabh Lagdiwala)

Abstract Body:

OBJECTIVES: Prescription drug monitoring programs (PDMP) are in place to limit drug misuse and diversion of opioids. These state-run programs use a variety of expensive resources to operate successfully. However, the long-term benefits of such programs are still unknown, and opioid deaths are still increasing. Therefore, the objective of the study was to determine if the PDMP in the state of New Jersey (NJPMP) serves a financial benefit to society.

METHODS: A cost-benefit analysis (CBA) was completed to compare the projected costs and benefits associated with continuing to run the NJPMP. Data was collected through the NJ Division of Consumer Affairs, Office of the Attorney General, and other state divisions. The value of lives saved through non-fatal hospitalizations and opioid related deaths were calculated by multiplying the average difference between the projected deaths with and without the NJPMP by the value of a statistical life. Then, the costs of running the NJPMP were calculated using personnel, software, and other related costs. The CBA ratios for the years 2012-2019 were calculated.

RESULTS: The CBA ratios for the years 2012-2019 ranged from 5.71 to 6.55, indicating that for every dollar invested into the NJPMP, $5.71 to $6.55 was saved annually with respect to the value of lives saved from fatal and non-fatal opioid overdoses. There was a decline in the CBA ratio when fentanyl related overdoses were incorporated, decreasing from 6.55 in 2016 to 6.31 in 2019.

CONCLUSIONS: The positive CBA ratio shows that the NJPMP serves a financial benefit to the payers of the program and that it benefits society. However, the decreasing trend in the ratio suggests that this may not be the case in the long-term. Unfortunately, the lack of impact on illicitly distributed fentanyl may limit the effectiveness of the NJPMP.

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Acceptance Code:	EE569
Board Number:	3B
Abstract Title:	Axicabtagene Ciloleucel for Relapsed/Refractory Diffuse Large B-Cell Lymphoma in the Irish Healthcare Setting: Cost-Utility and Value of Information Analysis
Presenting Author:	Niamh Carey

Abstract Body:

OBJECTIVES: This study evaluates the cost effectiveness of axicabtagene ciloleucel (CAR T-cell therapy), versus salvage chemotherapy, for the treatment of relapsed/refractory diffuse large B-cell lymphoma (R/R DLBCL) in the Irish healthcare setting. The value of conducting further research, to investigate the value of uncertainty associated with the decision problem, is assessed by expected value of perfect information (EVPI).

METHODS: A three-state partitioned survival model was developed to extrapolate outcomes to the time horizon of the model (44 years). A short-term decision tree partitioned patients in the axicabtagene ciloleucel arm according to infusion status. The ZUMA-1 trial informed the efficacy of axicabtagene ciloleucel. CORAL Extension 1 informed the efficacy of salvage chemotherapy. Survival was extrapolated to 5 years; general population mortality with a standardised mortality ratio was then applied. Irish cost data were used, where available. Utility data were sourced from the literature. EVPI estimates were scaled up to population according to the incidence of the decision. The assumed technology time horizon was 10 years. A discount rate of 4% was applied.

RESULTS: At list prices, the incremental cost-effectiveness ratio (ICER) was €78,634 per quality-adjusted life year (QALY) (incremental costs €288,825; incremental QALYs 3.67). The probability of cost effectiveness, at the defined €45,000 per QALY threshold, was 0%. Here, population EVPI was €0.00. Population EVPI, at the price of axicabtagene ciloleucel that reduced the ICER to €45,000 per QALY, was €6,137,514.

CONCLUSIONS: At list prices, axicabtagene ciloleucel is not cost effective, versus salvage chemotherapy, for R/R DLBCL in Ireland. Further research to decrease decision uncertainty may not be of value. If the price of axicabtagene ciloleucel is reduced to generate an ICER of €45,000 per QALY, further research to decrease decision uncertainty should not exceed €6.1 million. However, structural and methodological uncertainty may not be adequately captured by the EVPI analysis.

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Acceptance Code:	PCR210
Board Number:	4B
Abstract Title:	Quality of Life and Productivity Losses of Dysmenorrhea Patients in Korea
Presenting Author:	Hyuna Yoon

Abstract Body:

OBJECTIVES: Dysmenorrhea is a common symptom in women. Dysmenorrhea impairs patients' quality of life and causes productivity loss in patients. However, there is a limited study on the disease burden of dysmenorrhea. This study was conducted to measure health-related quality of life and productivity loss of dysmenorrhea patients in Korea.

METHODS: Secondary analysis with the data of a multicenter, randomized controlled trial evaluating efficacy, safety, and economic effect of Dangguijagyak-san on primary dysmenorrhea patients was performed. 16-40 years old women who had primary dysmenorrhea for three consecutive months with at least 50 VAS scores were included in the trial. We descriptively analyzed the health-related quality of life and productivity loss of the patients. Subgroup analysis was conducted by five-year age groups. EuroQol-5D (EQ-5D), Verbal multidimensional scoring system (VMSS), Retrospective symptom scale (RSS), and Short form McGill pain questionnaire (SF-MPQ) were used to measure patients' quality of life. iMTA productivity cost questionnaire (iPCQ) was used to estimate patients' productivity loss due to dysmenorrhea.

RESULTS: A total of 240 dysmenorrhea patients were included in the analysis. The mean EQ-5D score was 0.5702. The average VMSS grade was 2 ("daily activity is affected; analgesics required and give sufficient relief so that absence from school is unusual; moderate pain"). RSS results showed during one menstruation cycle, patients slept 4.24 hours more than usual because of dysmenorrhea, and 57.5% of total patients took an average of 3.52 analgesics to relieve pain. The mean productivity loss due to absenteeism, presenteeism, and unpaid work was $11.40, $151.53, and $58.91, respectively. Total productivity loss due to dysmenorrhea was $ 221.85 per month.

CONCLUSIONS: This study provides an overview of dysmenorrhea women's health-related quality of life in Korea by presenting measurement results of various health-related quality of life instruments. Also, this study provides information on productivity loss due to dysmenorrhea in Korean patients.

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Acceptance Code:	P5
Board Number:	6B
Abstract Title:	Patient Preferences on Decentralization of Clinical Trials: Identifying Attributes in a Focus Group Study
Presenting Author:	Julia Kopanz

Abstract Body:

OBJECTIVES: Decentralized clinical trials (DCTs) move away from conventional in-person study-site-visits to the participant's environment by using innovative digital technologies. This centering of trial activities around participants promises easier trial access and less burden for participants, but will also result in less face-to-face contact with health-care-professionals. Little is known about the drivers for participation in clinical trials with different decentralization levels. The aim of this focus group study was to identify these drivers (attributes) of participation for persons with type-2-diabetes (T2D). The findings will be used to elicit preferences in a discrete-choice-experiment (DCE).

METHODS: Attributes identified from literature were narrowed down in iterative discussion sessions by researchers by removing duplicates and interacting attributes and by grouping similar attributes. Focus group sessions were held in two European countries with persons with T2D (4-6 participants per group) using the nominal group technique to prioritize attributes for the DCE. Participants first generated their own ideas which were subsequently discussed, complemented with attributes from literature and compounded to a final set. Finally participants were asked to individually rank the attributes from most important to least important and an overall ranking score was estimated.

RESULTS: A total of 30 attributes identified from literature were condensed to nine attributes by researchers. Through several focus group sessions attributes were further defined, discussed, and sharpened to a final set for DCE use. Some of the attributes identified were the location of trial activities, travel time per visit, data collection, risk and safety of the investigational medicinal product.

CONCLUSIONS: Focus group sessions are essential in defining relevant attributes. A transparent process is warranted to arrive at those that are most meaningful and relevant. Further elicitation of preferences within a DCE is an important next step to understand patient preferences and drivers of participation in DCTs.

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