

ISPOR Europe 2022

6-9 November | Vienna, Austria and Virtual



Poster Tour Guide Packet

Poster Session:	In-Person and Virtual Poster Session 1
Tour Name:	Real-World Evidence
Tour Date/Time:	Monday, 7 November 2022, 2022, 12:30 - 13:15
Tour Area:	Area A, Hall X2, Level -2

Acceptance Code:	EE449
Board Number:	1A
Abstract Title:	Cost-Effectiveness of One Session Treatment (OST) for Children and Young People with Specific Phobias Compared to Multi-Session Cognitive Behavioural Therapy (CBT): Results from a Randomised Controlled Trial
Presenting Author:	Han-I Wang

Abstract Body:

OBJECTIVES: In the UK, around 93,000 children and young people (CYP) experience specific phobias with a substantial impact on daily life. The current gold-standard treatment (multi-session cognitive behavioural therapy - CBT) is effective at reducing specific phobia severity; however, it is time consuming, requires specialist therapists, and can be costly with limited availability. It has been found one-session treatment (OST), a briefer variant of CBT, offers similar effectiveness. The aim of this study was to assess the cost-effectiveness of OST compared to multi-session CBT for CYP with specific phobias through ASPECT, a two-arm, pragmatic, multi-centre, non-inferiority randomised controlled trial.

METHODS: CYP aged 7 to 16 years with specific phobias were recruited nationally via the Health and Social Care pathways, randomised to the intervention group and control groups, and analysed (n=267). Resource use based on NHS and personal social services perspective and quality adjusted life years (QALYs) measured by EQ-5D-Y were collected at baseline and at six-month follow-up. Incremental cost-effectiveness ratio (ICER) was calculated, and non-parametric bootstrapping was conducted to capture uncertainty around the ICER estimates. The results were presented on a cost-effectiveness acceptability curve (CEAC). A set of sensitivity analyses (including taking a societal perspective) were conducted to assess the robustness of the primary findings.

RESULTS: After adjustment and bootstrapping, on average CYP in the OST group incurred less costs (incremental cost was -£302.96 (95% CI -£598.86 to -£28.61)) and maintained similar improvement in QALYs (gained 0.002 (95% CI -0.004 to 0.008)). The CEAC shows the probability of OST being cost-effective was over 95% across all the WTP thresholds. Results of a set of sensitivity analyses were consistent with the primary outcomes.

CONCLUSIONS: Compared to CBT, OST produced a reduction in costs and maintained similar improvement in QALYs. Results from both primary and sensitivity analyses suggested that OST was highly likely to be cost saving.

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:	EE434
Board Number:	2A
Abstract Title:	Health Care Resource Use and Costs in Transthyretin Amyloid Cardiomyopathy - A Swedish Medical Record Review Study
Presenting Author:	Frida Hjalte

Abstract Body:

OBJECTIVES: To estimate healthcare resource use and health care costs of patients with the rare, progressive disease Transthyretin Amyloid Cardiomyopathy (ATTR-CM) in Sweden in relation to different stages of heart failure progression, assessed as deterioration in the New York Heart Association class (NYHA).

METHODS: An observational cross-sectional study based on reviews of medical records in patients with ATTR-CM. The study population included a strategic selection of patients >18 years with a confirmed diagnosis of ATTR-CM in different NYHA classes in two cardiology clinics in Sweden. Health care resource use was calculated for the last 12 months from the last registered contact for each patient.

RESULTS: The study population included 38 patients (mean age: 80 years, 89% male) of which 18% were NYHA class II, 53% NYHA class III and 11% NYHA class IV. Mean time (SD) from any cardiac symptoms prior to ATTR-CM diagnosis was 3.5 (3.1) years. Mean total health care cost during the 12-month period was approximately 200 000 SEK per patient, of which primary care contributed to 5%, specialist outpatient care to 25% and inpatient care to 70%. There was a clear trend of higher use/costs with increasing NYHA stages. The total health care cost per patient increased from 63 000 SEK in NYHA stage II, 212 000 SEK in NYHA stage III, to 632 000 SEK in stage IV, mainly due to an increase in patient hospitalizations. The cost of inpatient care accounted for 47% and 88% of total costs, respectively, in NYHA stage II and IV.

CONCLUSIONS: Severe stages of ATTR-CM are associated with extensive health care resource use. This study emphasizes the importance of early diagnosis, appropriate care, and treatment, which potentially can slow disease progression, reduce costly hospitalizations and decrease the burden of disease.

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Acceptance Code:	EE553
Board Number:	3A
Abstract Title:	Hospitalisation and Healthcare Costs in Adults with Systemic Lupus Erythematosus in Sweden: A Real-World Observational Cohort Study
Presenting Author:	Thomas Stephens

Abstract Body:

OBJECTIVES: Systemic lupus erythematosus (SLE) is a chronic multi-organ autoimmune disease, often with a relapsing-remitting pattern, which causes significant morbidity and mortality. This study estimated the costs and resource burden associated with SLE and disease flares in Sweden.

METHODS: Adult patients with ≥ 2 hospital visits with a primary diagnosis of SLE between July 2005 to December 2020 were identified in the Swedish National Patient Registry. Follow-up started at the first recorded hospital visit for SLE. Population controls were matched 5:1 on age, sex, and county. Average annual number of outpatient visits, inpatient stays, average length of stay (LOS), and total costs of secondary care and prescription drugs (reported in 2021 SEK) were derived. Data on hospital-administered medications and indirect costs were not available. Flares were identified using an algorithm integrating medications and healthcare used for specified diagnoses and classified as mild, moderate, or severe. Costs per flare were estimated based on hospital visits and prescription medications dispensed within 45 days of the start of the flare.

RESULTS: The 9,672 identified SLE patients (mean age [SD] at inclusion 50.2 years [17.2], 85.5% female) used significantly more healthcare than matched controls, including more outpatient visits (2.75 vs. 0.26 per year), more inpatient stays (0.43 vs. 0.08 per year), longer LOS per admission (13.2 days vs. 9.2 days; all $p < 0.0001$), and had higher annual healthcare costs (43,758 vs. 7,898 SEK). The average costs per flare (average annual flares per patient) were 3,029 SEK (0.33), 7,683 SEK (1.10), and 49,434 SEK (0.27) for mild, moderate, and severe flares, respectively.

CONCLUSIONS: This nationwide analysis showed that patients with SLE in Sweden use 5-10 times more hospital care than controls, with a higher overall direct costs. Managing flares is a key component of costs in SLE. Effective treatments reducing flare rates could reduce the economic burden of SLE.

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Acceptance Code:	EPH91
Board Number:	4A
Abstract Title:	Association Between Mental Disorders and COVID-19 Outcomes in Hospitalized Patients in France: A Retrospective Nationwide Population-Based Study
Presenting Author:	Alexandre Descamps

Abstract Body:

OBJECTIVES: Mental disorders are at-risk of severe COVID-19 outcomes. There is limited and heterogeneous national data in hospital settings evaluating the risks associated with any pre-existing mental disorder, and susceptible subgroups. Our study aimed to investigate the association between pre-existing psychiatric disorders and outcomes of adults hospitalised for COVID-19.

METHODS: We used data obtained from the French national hospital database linked to the state-level psychiatric registry. The primary outcome was 30-days in-hospital mortality. Secondary outcomes were to compare the length of hospital stay, Intensive Care Unit (ICU) admission and ICU length. Propensity score matching analysis was used to control for COVID-19 confounding factors between patients with or without mental disorder and stratified by psychiatric subgroups.

RESULTS: Among 97,302 adults hospitalised for COVID-19 from March to September 2020, 10,083 (10.3%) had a pre-existing mental disorder, mainly dementia (3,581 [3.7%]), mood disorders (1,298 [1.3%]), anxiety disorders (995 [1.0%]), psychoactive substance use disorders (960 [1.0%]), and psychotic disorders (866 [0.9%]). In propensity-matched analysis, 30-days in-hospital mortality was increased among those with at least one pre-existing mental disorder (hazard ratio (HR) 1.15, 95% CI 1.08–1.23), psychotic disorder (1.90, 1.24–2.90), mood disorder (1.19, 1.00–1.42) and psychoactive substance disorders (1.53, 1.10–2.14). The odds of ICU admission were consistently decreased for patients with any pre-existing mental disorder (OR 0.83, 95% CI 0.76–0.92) and for those with dementia (0.64, 0.53–0.76).

CONCLUSIONS: Pre-existing mental disorders were independently associated with in-hospital mortality. These findings underscore the important need for adequate care and targeted interventions for at-risk individuals with severe mental illness.

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Acceptance Code:	MT32
Board Number:	5A
Abstract Title:	Rise of the Machines – Analysis of Robotic-Assisted Surgery from 2005 to 2020 Based on German Hospital Data
Presenting Author:	Tammo Viering

Abstract Body:

OBJECTIVES: The study objective was to investigate the utilization of robotic-assisted surgery in Germany.

METHODS: We conducted a retrospective data analysis using German § 21 KHEntgG hospital data of the Federal Statistical Office of Germany and the InEK (Institut für das Entgeltsystem im Krankenhaus/ Institute for the Hospital Remuneration System). Robotic-assisted surgery was identified by OPS codes 5-987.0, 5-987.1, 5-987.x from 2005 to 2020. Age and sex specific trends in the utilization of robotic-assisted surgery were investigated and compound annual growth rates (CAGR) calculated. Predominant indications and medical specialties associated with robotic-assisted surgery were identified by DRG and ICD-10-GM codes.

RESULTS: 1079 robotic-assisted surgeries were performed in 2005 in German hospitals. By 2020, the number had increased to 37,876, resulting in a CAGR of 26.8% (29.6% male, 22.2% female). With a sex ratio of 1.1:1, robotic-assisted surgery was performed with similar frequency in males and females in 2005. Differences steeply increased until 2009 (sex ratio: 6.4:1), before steadily declining to a sex ratio of 2.6:1 by 2020. In 2020, the medical specialty in which robotic-assisted surgery was used most often was urology (66.7%), with the most common indication being malignant prostate neoplasms (41.8%). Other relevant specialties are gastroenterology (10.1%), orthopedics (9.2%), and gynecology (6.0%). 74.6% of robot-assisted surgeries were performed in connection with tumor indications (malignant neoplasms: 69.7%, benignant neoplasms: 4.9%). 69.4% of patients receiving robotic-assisted surgery in 2020 were 60+. Mainly complex robotic systems were used (5-987.0: 87.3%), as compared to robotic arms (5-987.1: 10.0%), or other systems (5-987.x: 2.8%).

CONCLUSIONS: Use of robotic systems has proliferated over the past 15 years and is integrated in several medical specialties. It is most relevant in urology and malignant prostate neoplasms. We expect further growth in the use of robotic systems in the future, as well as continued diversification in application areas.

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Acceptance Code:	PCR256
Board Number:	6A
Abstract Title:	Humanistic Burden and Prevalence of Mental Conditions Among COVID-19 Patients in Japan and China
Presenting Author:	Amanda Woo

Abstract Body:

OBJECTIVES: The COVID-19 pandemic results in widespread health, economic, and social disruptions. It is therefore important to understand the multifaceted effects of COVID-19, including the humanistic burden and impact on mental conditions. This study aims to assess the humanistic burden and prevalence of mental conditions among COVID-19 patients in Asian countries.

METHODS: This study utilized the Internet-based National Health and Wellness Survey (NHWS) conducted in Japan and China. We included respondents in surveys conducted after the COVID-19 outbreak: the 2021 Japan NHWS (n=30,015) and the 2020 China NHWS (n=20,051). COVID-19 patients were identified based on self-reported physician diagnosis. A subset of non-COVID respondents was selected using 1:4 propensity score matching. For each country, demographic characteristics, Health-related Quality of Life (HRQoL), work productivity and activity impairment (WPAI), and prevalence of emotional and mental conditions were compared between COVID-19 patients and selected controls using bivariate analyses.

RESULTS: In both countries, COVID-19 patients had statistically significantly lower HRQoL and higher WPAI compared to selected controls on all measures we examined ($P < 0.01$). A higher proportion of COVID-19 patients exhibited symptoms of depression (Patient Health Questionnaire-9 [PHQ-9] ≥ 10 : Japan: 24.3% vs. 12.4%; China: 66.4% vs 18.2%) or anxiety (General Anxiety Disorder-7 [GAD-7] ≥ 10 : Japan: 17.5% vs. 9.4%; China: 40.1% vs 8.2%) in both countries. COVID-19 patients reported significantly higher total work productivity impairment compared to non-COVID respondents (Japan: 37.3% vs. 20.4%; China: 63.9% vs. 27.5%, $p < 0.001$). Increased rates of emotional and mental conditions (e.g., bipolar disorder, depression, and schizophrenia) were also observed in COVID-19 patients in both countries ($P < 0.05$).

CONCLUSIONS: This study demonstrated a substantial impact of COVID-19 on HRQoL, WPAI, and mental conditions in both Japan and China. COVID-19 patients experienced significantly worse HRQoL and WPAI, as well as an elevated rate of mental conditions than the non-COVID population.

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