OP142 Progression Analysis Versus Traditional Methods To Quantify Slowing Of Disease Progression In Alzheimer's Disease

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Introduction: New statistical methodology, known as progression models for repeated measures (PMRM), can estimate the slowing of progression (percentage slowing or time delay) of Alzheimer's disease from trial data on disease-modifying therapies. We compared the PMRM methodology with mixed models for repeated measures (MMRM) and Cox time-to-event analysis on simulated trial data with respect to their power and interpretability of estimates.
Methods: Two novel models were included: PMRM (estimating slowing of progression and allowing different rates across visits) and proportional-slowing PMRM. Clinical Dementia Rating (CDR) Sum of Boxes score and progression to dementia as assessed by CDR global score were the primary outcomes for MMRM/PMRM and the Cox model, respectively. Subject-level placebo arm trajectories were jointly simulated based on estimated CDR mean trajectories and joint temporal correlation structure of 538 amyloid-positive patients with mild cognitive impairment who met typical disease-modifying trial inclusion criteria from the Alzheimer's Disease Neuroimaging Initiative study. Active arm trajectories were simulated to show an average 20 percent slowing of disease progression, compared with placebo, at each visit. We conducted 1,000 simulations across multiple scenarios, varying the number of patients per arm (200 to 700) and clinical trial duration (18 to 36 months).
Results: The power of PMRM models was greater than that of MMRM, and much greater than that of the Cox model whose power never exceeded 45 percent. PMRM models accurately estimated the underlying treatment effect (median 20% slowed progression, which translated to a delay in progression of 5 and 7 months at trial durations of 24 and 36 months, respectively), unlike quantifications of the MMRM (median estimated 25% reduction in decline), and the Cox model (median estimated hazard ratio of 0.9).
Conclusions: For disease-modifying therapies, PMRM estimates may have a more intuitive clinical interpretation in terms of delayed progression than MMRM or Cox models and enable a description of the amount of time spent in less severe disease stages. Among all the methods studied, PMRM offered the best combination of interpretability and power.

OP143 Association Of Different Venous Access Device With Health-Related Quality Of Life Among Patients With Breast Cancer In China

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Introduction: Few studies have explored the relationship between different venous access devices and health-related quality of life (HRQoL) among patients with breast cancer in China. This study aimed to evaluate the HRQoL of patients with breast cancer in China who underwent different venous access devices and to estimate the association between type of venous access device and HRQoL.
Methods: A multicenter cross-sectional study was conducted in three tertiary hospitals from three major geographical regions in China. The final sample consisted of 472 patients aged from 18 to 78 years. The HRQoL was measured with the EQ-5D-5L scale and the EuroQoL Group visual analog scale. The venous access devices were divided into totally implantable venous access devices (TIVAD), peripherally inserted central catheters (PICC), and other devices. The multivariate regression analyses were used to explore the association between type of venous access device and HRQoL.
Results: Of 472 participants, 352 (75%) used the TIVAD device, 89 (19%) used the PICC device, and 31 (7%) used other devices. The TIVAD group had the highest EQ-5D-5L values (mean 0.89, standard deviation [SD] 0.178), while the PICC group had the lowest values (mean 0.85, SD 0.239). The EQ-5D-5L values for the other venous access device group was in between (mean 0.88, SD 0.127). However, the multivariate analysis indicated that the VAS and EQ-5D-5L scale dimension scores among patients were not significantly different (P>0.05) for the various central venous access devices.
Conclusions: This study demonstrates a non-significant association between the type of venous access device used and the HRQoL of patients with breast cancer in China. Although patients with a TIVAD experienced more pain during device insertion and access for chemotherapy, the negative effect on HRQoL scores was smaller than for PICCs.

OP144 Impact Of A Training Program For The General Population On Knowledge Of Aortic Valve Stenosis

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https://doi.org/10.1017/S0266462323001459 Published online by Cambridge University Press

Introduction: Limited knowledge of the symptomatology of aortic stenosis (AS) among the general population may delay diagnosis and have a major impact on morbidity and resource use. Training programs have often been advocated by the scientific community. The present study reported the results of an assessment of a training program for the general population.
Methods: Patients who attended healthcare centers were asked to answer a questionnaire on their level of knowledge around AS. A cohort of patients without training (n=681) answered the questionnaire and a second cohort answered the questionnaire via phone 24 hours after training (n=197). Propensity score matching by sex and age was used to obtain a balanced sample between the two cohorts, giving a total study sample of 394 individuals (197 without training and 197 with training). A descriptive analysis was performed to compare differences in the level of knowledge between the two cohorts. Predictors of AS symptomatology were identified using multivariate logistic regression.
Results: The trained cohort was more aware of AS disease than the untrained cohort (79% versus 31%, 95% confidence interval [CI]: 0.39, 0.56; p<0.001). They were also better at distinguishing the symptoms associated with AS (80% versus 43%, 95% CI: 0.28, 0.48, p<0.001) and were more aware of its severity (36% versus 12%; 95% CI: 0.16, 0.32, p<0.001). Moreover, the trained cohort were better at identifying symptoms that should make them consider visiting a doctor (76% versus 65%; 95% CI 0.02, 0.20, p<0.02). No differences were observed in level of concern regarding AS (8% versus 4%; 95% CI: -0.0046, 0.09, p=0.08).
The trained people who were aware of AS (p=0.04) correctly classified AS as a valvular disease (p=0.025), would seek medical consultation when AS symptoms occurred (p=0.04), and were more likely to correctly detect AS symptoms.
Conclusions: The training program significantly improved the knowledge and awareness of AS in the general population. This can improve the timeliness of AS diagnosis, reducing the health and economic burden of AS for the healthcare system.

OP147 Measuring Health Technology Assessment Impact On The Introduction Of Transcatheter Aortic Valve Replacement In A Private Healthcare System

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Introduction: Aortic stenosis is an insidious disease that has a high mortality rate when it becomes symptomatic. Surgical valve replacement is the treatment of choice and has predictable risks. Transcatheter aortic valve replacement (TAVR) is a less invasive alternative to surgery, which is indicated for high-risk patients.
Complications after TAVR include paravalvular leak, cerebrovascular events, and the need for pacemaker implantation. A health technology assessment report carried out by the Health Technology Assessment Unimed-BH group in 2018, two years before it became part of the National Supplementary Health Agency, recommended the introduction of TAVR with the following criteria: indications provided by a group of specialists; forwarding of a report with detailed clinical data; results of imaging exams; and follow-up results for up to one year after the procedure. After the introduction of TAVR with the agreed criteria, it was possible to access TAVR results from the private healthcare system of Unimed-BH.
Methods: Administrative data were collected from the Unimed-BH database. All patients who received a TAVR implant from 2013 to 2017 were included by virtue of a court injunction, and after 2018 by operator concession and within agreed criteria.
Results: From July 2013 to June 2019, 83 patients underwent TAVR implantation by Unimed BH. The median age of patients was 83.4 years (interquartile range 66.5 to 97.9), most of whom were women (56%). There was a predominance of patients in New York Heart Association classification III (50%) and IV (29%). There were 36 patients who underwent TAVR before 2018 and 47 patients within the agreed criteria. In the period prior to the agreed criteria, 28 percent needed a pacemaker, compared with 23 percent after 2018. During the follow-up period, 39 patients died: 18 (50%) before 2018 and 11 (23%) after 2018.
Conclusions: The agreement made with the providers, which included the obligation of having a team of specialists responsible for the indication and access to clinical data through the report, improved patient outcomes. This may be due to having a better indication for the procedure or to the greater experience of the professionals involved in its delivery.

OP148 Influence Of The Hospital-Based Health Technology Assessment Unit On New Technologies Transfer At The National Level In Kazakhstan

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Introduction: The hospital-based Health Technology Assessment (HB-HTA) Unit in the Hospital of the President's Affairs Administration has been operating since 2015 and is the first example of the implementation of the HB-HTA system in Kazakhstani hospitals. In

https://doi.org/10.1017/S0266462323001459 Published online by Cambridge University Press