PP96 Evaluating The Quality-Of-Life Impact Of Erythropoiesis-Stimulating Agents For Lower Risk (Low To Intermediate-1) Myelodysplastic Syndrome Patients

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Introduction: Patients diagnosed with low- to intermediate-1-risk myelodysplastic syndrome (LR-MDS) encounter symptom burden that diminishes their health-related quality of life (HRQoL). Erythropoiesis-stimulating agents (ESAs) remain an option to alleviate anemia-related symptoms. However, existing HRQoL studies show limited evidential support. This study assesses the impact of ESAs on LR-MDS patients' EuroQol 5-dimension questionnaire (EQ-5D) scores compared to not using ESA as initial therapy.
Methods: The European MDS Registry (EUMDS) collects information including ESA usage, covariates, and EQ-5D scores at six-month intervals. Estimating average treatment effect (ATE) from observational data requires adjusting for several sources of bias. Our study controls for baseline and time-varying confounding by using inverse probability of treatment weights. Employing a methodology based on marginal structural models, we are able to estimate robust ATEs. A two-part mixed-effects beta model was used to calculate ATE during a four-year follow-up period. We compare ESA therapy every six months versus clinical management not involving the use of ESAs.
Results: Our results show an overall positive ESA effect on EQ-5D over the four-year follow-up period. The majority of time points have a positive ESA effect after adjustment, though a few time points show no effect. The estimated ATE at four years is small: 0.046 (−0.031, 0.114).
Conclusions: We found that use of ESAs over a four-year follow-up period produces mostly positive treatment effect estimates after adjusting for time-varying variables and confounders. Our robust results can be used to inform more reliable treatment decision-making.

PP97 Conduction System Pacing Implantation Through Electroanatomic Mapping-Guided Versus Fluoroscopy In Patients With Severe Bradyarrhythmias

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Introduction: Electroanatomic mapping (EAM) has been shown to be an alternative procedure to fluoroscopy for the implantation of conduction system pacing (His-bundle pacing [HBP] and left bundle branch pacing [LBBP]) in patients with severe bradyarrhythmias, mainly those vulnerable to ionizing radiation. However, the evidence of its beneficial and harmful effects has not been assessed in a systematic review (SR).
Methods: An SR of the available scientific literature was conducted on the safety, effectiveness, and cost-effectiveness of implantation of the HBP and LBBP using EAM system versus fluoroscopy in patients with bradycardia with an indication for pacing therapy. Cochrane methodology and PRISMA statement for reporting were followed. A partial economic evaluation was carried out to compare the costs of both pacemaker implantation strategies from the perspective of the Spanish National Health System. A budget impact analysis was also conducted with a five-year horizon.
Results: Seven comparative observational studies (N=259) analyzing the use of EAM versus fluoroscopy were selected. Statistically significant differences were observed in total fluoroscopy time: −9.87 minutes (95% confidence interval [CI]: −14.20, −5.53; p<0.01; I2=95%; k=7; n=231); His-lead fluoroscopic time: −8.08 minutes (95% CI: −10.36, −5.81; p<0.01; I2=0%; k=2; n=50); and His-lead radiation dose: −17.21 mGy (95% CI: −24.08, −10.34; p<0.01; k=1; n=20). No differences in total radiation dose, procedural success, immediate procedure-related complications, electrode revision, or device infection were found. The use of EAM represents an increase of EUR1,397.81 (USD1,513.88) per patient and a net budget impact of EUR1.63 million (USD1.77 million).
Conclusions: No differences between EAM and fluoroscopy in terms of procedure success and safety were found. Therefore, EAM is a valuable alternative for patients who should not be exposed to ionizing radiation. The inclusion of EAM systems, for the indication under study, in routine clinical practice would mean an increase in costs for the Spanish National Health System.

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