

oesophagectomy prescription set' implementation on EPMA is recommended to limit variation in practice between rotating cohorts of junior doctors, thereby improving compliance with ERAS recommendations.

## P9

### COMBINING ENHANCED RECOVERY AFTER SURGERY AND SAFE BRAIN INITIATIVE APPROACHES IN COLORECTAL SURGERY: AN EXAMPLE OF GOOD CLINICAL PRACTICE

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**Background:** Enhanced Recovery After Surgery (ERAS) protocols offer multidisciplinary approaches to accelerate postoperative recovery. The Safe Brain Initiative (SBI) includes a set of strategies explicitly focusing on brain protection. The combined use of ERAS and SBI provides an innovative approach to improve both short-term neurological outcomes and long-term recovery for surgical patients.

**Methods:** This retrospective study included fifty patients who underwent colorectal surgery and applied the ERAS protocol and the SBI approach. Demographic data, suppression time on electroencephalography (EEG), pain and stress levels, and Nursing Delirium Screening Scale (Nu-Desc) were recorded during the perioperative period. Delirium was defined as the Nu-Desc score equal to or above 2. Data were analyzed using SPSS Statistics for Windows, Version 17.0. The Shapiro-Wilk test, Spearman correlation test, and Wilcoxon test were used.

**Results:** The mean age of the patient population was 62.96±11.14. The average operation duration was 370.5±136.9 (120-700) minutes. The processed EEG suppression duration was 405.5±1191 (0-6212) seconds. The pain scores of the patients at preoperative, PACU (Postanesthesia Care Unit) admission, and PACU discharge were 0.36±1.17 (0-6), 1.70±2.14 (0-7), and 1.68±2.08 (0-7), respectively ( $p<0.001$ ). The stress scores of the patients at preoperative, PACU admission, and PACU discharge were 2.98±3.17 (0-10), 1.86±2.75 (0-10), and 1.36±2.15 (0-9), respectively ( $p<0.05$ ). There was no delirium preoperatively. The postoperative delirium rates were 10% and 6% in PACU admission and discharge, respectively. There was no correlation between the duration of surgery and the suppression duration ( $p=0.55$ ). The EEG suppression time had no statistically significant effect on PACU arrival and discharge delirium rates ( $p=0.11$  and  $p=0.21$ ).

**Conclusions:** This study indicated that ERAS protocols were effective in managing pain and stress levels during the perioperative period. The literature reported delirium rates for surgical patients on admission and discharge to PACU as between 10-50% and 5-15%, respectively. This study demonstrated lower postoperative delirium rates compared to the literature. There was no correlation between EEG suppression duration and PACU arrival and discharge delirium rates. Embedding the SBI approach into colorectal ERAS protocols may provide additional benefits in protecting brain health and optimizing overall recovery during perioperative care.

## P11

### DOES AN OPTIMIZED TREATMENT PROCESS FOR HIP AND KNEE REPLACEMENT IN THREE STRUCTURALLY HETEROGENEOUS SITES LEAD TO COMPARABLE RESULTS? – DATA FROM THE PROMISE-TRIAL

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**Background and Aims:** The PROMISE study (Process optimization by interdisciplinary and cross-sectoral care using the example of patients with hip and knee prostheses) (1) has shown successful results for high volume surgeries such as hip and knee replacements but also differences between different sites and patient settings. To demonstrate similar effectiveness is a prerequisite for a broad roll out of this optimized process. Accordingly, the aim of the subanalysis of the PROMISE study data presented here was to examine whether the site effects of the heterogeneous German test centers are comparable.

**Methods:** An optimized interdisciplinary treatment process was developed and implemented equally in 3 German hospitals with different levels of care. A total of 1887 patients were included in a regional hospital (N=441), an orthopedic-specialized hospital (N=916), and a tertiary referral university hospital (N=530). The transformed Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC 0 (best result) - 100) was assessed as the outcome parameter at 3, 6, and 12 months after surgery. Our homogeneity approach included sex, age, ASA at baseline, and BMI as confounders in a mixed model for repeated measurements. The sites were included with weights proportional to the number of included subjects. Using an estimated covariance matrix of the model and the delta method, it was possible to approximate site-specific effects as well as corresponding confidence intervals. The two-sided 90%-confidence limits needed to be within a range of the study's overall treatment effect ± the minimal clinically important difference (MCID) of 10 points (2), to demonstrate a homogenous result in all sites using a 5% significance level.

**Results:** With a maximum deviation of 4.3 points from the overall effect of the treatment (25.4 points), all site-specific results are completely within the range defined by the overall effect (±) MCID. Furthermore, the maximum deviation between the site-specific effects is 5.4 points, well below the MCID. Thus, the site-specific effects achieved can be considered homogeneous.

**Conclusion:** The optimized treatment in knee and hip replacements can be carried out with similar success in three most different settings of the German healthcare system. This met an important prerequisite for the system-wide rollout.

1) Betz U et al. Acta Orthop. 2021 Apr;92(2):156-162.

2) Clement, ND et al. Clin Orthop Relat Res. 2018 Oct; 476(10): 2005-2014

## P12

### INFLUENCE OF LANGUAGE BARRIERS ON POSTOPERATIVE RECOVERY IN HEPATOBILIARY AND PANCREATIC SURGERY WITHIN AN ENHANCED RECOVERY AFTER SURGERY (ERAS) PATHWAY

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**Background:** Language barriers in healthcare settings can severely affect the quality of healthcare and lead to poorer outcomes. Patients with language barriers have less access to common health services, fewer medical consultations and preventive check-ups. Surgery requires well-informed and actively participating patients for enhanced recovery. The effects of language barriers on postoperative recovery are poorly studied. Major visceral procedures such as pancreatic and hepatobiliary surgery are known to have frequent complications and quite high mortality. ERAS®-pathways can improve recovery after major surgery, but little is known on its impact on patients with language barriers. The purpose of this study was to examine the impact of language barriers on recovery after hepatobiliary and pancreatic surgery.

**Method:** We performed a retrospective study in an ERAS® certified university medical center in Germany and included patients undergoing elective pancreatic or hepatobiliary surgery. A language barrier was defined as the necessity of a professional interpreter for surgical education. We compared the outcomes from patients with language barriers to patients without language barriers. Data extraction was performed from medical records and ERAS® Interactive Audit System (EIAS). Outcomes were length of stay (LOS), occurrence of postoperative complications, ERAS®-Compliance, readmission to hospital and in-hospital mortality.