Gastrointestinal Disorders – Health Care Use & Policy Studies

PG125

STRUCTURED MANAGEMENT STRATEGY VERSUS USUAL PRIMARY CARE FOR GASTROESOPHAGEAL REFUX DISEASE: META-ANALYSIS OF FIVE EUROPEAN CLUSTER RANDOMIZED TRIALS ASSESSING HEALTH CARE UTILIZATION COSTS


OBJECTIVES: Gastro esophageal reflux disease (GERD) is commonly associated with a significant adverse impact on the patient’s quality of life, his/her employ- ment, and general health care systems. This meta-analysis was to conduct a pooled analysis of the data from five European studies (GERD Management Project) to assess the potential benefit for healthcare providers of a structured treatment pathway (STP) for the treatment of GERD. METHODS: We conducted a meta-anal- ysis of five cluster randomised clinical trials comparing a new management strat- egy with usual care in patients with GERD conducted in Austria, Italy, Norway, Spain and Sweden (NCT0084287). The educational intervention on investigators was based on the GERD questionnaire to stratify patients with classical symptoms of GERD according to the frequency and impact of the most severe. The effective acid-suppressive therapy (esomeprazole 40 mg once daily) was pre-scribed to be used only in patients with the highest GERD symptom impact score (\( \geq 3 \)) of a possible score of 6. Calculations were performed using data on mean values for resource utilization (including emergency room visits, hospitalization, primary-care physi- cian visits, medicines, specialist visits and endoscopy) multiplied by the unit cost of each variable. UK unit costs were applied to the entire European cohort. RESULTS: 1947 patients were included in the analysis, 944 (49%) on the STP group and 1003 (51%) on the usual clinical practice (UCP) group. In the STP group, GERD scores improved significantly more during therapy than in the UCP group. Patients in the STP group had lower overall healthcare costs, 107.56€ per patient/year, than those in the UCP group, 137.55€ per patient/year (i.e. 22% reduction in healthcare utilization costs).

CONCLUSIONS: The implementation of a structured treatment pathway for the treatment of GERD based on the GERD questionnaire could considerably reduce the disease healthcare utilization costs compared with the usual clinical prac- tice.

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PATIENT CHARACTERISTICS ASSOCIATED WITH USE OF ENTERAL VERSUS PARENTERAL ACID SUPPRESSIVE AGENTS IN INTENSIVE CARE UNIT PATIENTS

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OBJECTIVES: Administering acid suppressive therapy, AST (proton pump inhibi- tors, PPIs or H2 receptor antagonists, H2RAs) via enteral versus parenteral route in Intensive Care Unit (ICU) patients for stress ulcer prophylaxis (SUP) may save costs. As little is known on who can receive enteral vs. parenteral AST, our objective was to evaluate whether ICU patients on any oral medication or with an oro-gastric tube receive enteral versus parenteral AST. METHODS: In a retrospective study of electronic medical records of > 15-year-old patients admitted to a Midwest Academic Medical Center's ICU and receiving an AST in 2008 were included. Patient data (age, gender, nonoperative/postoperative status, any oral medication use, oro-gastric tube, nothing by oral route (NPO), resource utilization variables (hospital days, days and AST-use (enteral/parenteral)) were collected. Statistical differ- ences between enteral and parental AST (PPI and H2RA) patient groups were determined using Chi-square or Fisher's exact test and Wilcoxon-rank-sum tests. In multivariate logistic regression analyses, the association of patient characteris- tics (any oral medication use, oro-gastric tube, NPO) with enteral versus parenteral AST-use was tested. P < 0.05 was considered statistically significant. RESULTS: 54% and 43% of PPI (n=392) and H2RA (n=203) patients, respectively received drug through enteral route. The enteral and parental PPI groups did not differ by any characteristics. The enteral and parental PPI groups differed significantly by me- dian hospital days (8.0 versus 13.0), median ICU days (2.0 versus 4.0), and nonop- erative/postoperative patient-status (55%/45% versus 41%/59%). In multivariate logis- tic regression analyses, any oral medication use increased the likelihood of enteral versus parenteral H2RA-use (P < 0.05) and PPI-use (P < 0.0001); however use of an oro-gastric tube was not significantly associated. CONCLUSIONS: To realize cost-effective quality of care, patients with an oro-gastric tube could receive enteral instead of parental AST and further study of cost savings from such use is un- derway.

Mental Health – Clinical Outcomes Studies

PMH1

IS STIMULANT OR ATOMOXETINE UTILIZATION ASSOCIATED WITH NEUROLOGICAL ADVERSE EVENTS IN CHILDREN WITH ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD)? A RETROSPECTIVE ANALYSIS OF PROPENSITY SCORE MATCHED DATA

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OBJECTIVES: This study examined comparative safety of stimulant versus atomoxetine with the risk of neurological adverse events in children with Attention-Deficit/Hyperactivity Disorder (ADHD). METHODS: The IMS LifeLink Health Plan Claims Database was used for this retrospective, propensity score matched analy- sis of children and adolescents with ADHD on stimulant and atomoxetine. The study sample included children less than 18 years of age initiating stimulant or atomoxetine therapy between July 1, 2004 to December 31, 2005. Patients with stimulant and atomoxetine were matched on propensity scores calculated based on baseline characteristics. The neurological adverse events included seizures (ICD-9-CM code-307.2x) and hospitalization for hip fracture during follow-up. Of these, 40 were typical and 267 were atypical users. In the propensity score matched cohort of 4,660 individuals (2,330 pairs), 40 (1.72%) typical atypical users were found.

CONCLUSIONS: Stimulant use was not significantly associated with diagnoses of neurological adverse events compared to atomoxetine in children. However, sensitivity analysis revealed that the stimulant users had an increased chance of receiving treatments for neurological adverse events. The findings suggest that stimulant use can lead to neurological adverse events which are not documented in ADHD patients but are usually treated.

PMH2

RISK OF HOSPITALIZATION FOR PNEUMONIA ASSOCIATED WITH THE USE OF ATYPICAL VERSUS TYPICAL ANTIPSYCHOTICS IN A NATIONAL SAMPLE OF MEDICARE BENEFICIARIES

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OBJECTIVES: To evaluate the risk of hospitalization for pneumonia associated with typical and atypical antipsychotic use in an elderly Medicare population. METHODS: This retrospective cohort study used two years (2006-2007) of na- tional sample of Medicare claims data. Medicare beneficiaries with continuous Part A, B, and D enrollment in 2006-2007 and who initiated atypical or typical antipsy- chotic drug therapy during July 2006-June 2007 were identified from Part D claims data. Propensity score matching was used to control for potential confounding. A conditional logistic regression model stratified on propensity score-matched pair was used to compare the risk of hospitalization for pneumonia in users of atypicals vs. typical antipsychotics within a 180 day follow-up period starting from the date of first prescription. RESULTS: A total of 15,637 new users of atypical and 2,337 new users of typical antipsychotic drugs were identified July 2006-June 2007. A total of 1,363 (7.6%) subjects had a hospitalization for pneumonia during follow-up. The proportion of hospitalizations was similar in the atypical (7.5%) and the typical antipsychotic (8.0%) groups. A total of 2,335 propensity score-matched pairs were obtained using the Greedy 5-1 matching algorithm. In the matched cohort, there were 186 (7.79%) pneumonia hospitalizations in typical users com- pared to 179 (7.67%) among atypical users. Typical antipsychotics users did not differ significantly from atypical users on the risk of pneumonia (odds ratio: 1.042, 95% CI: 0.843-1.288). Sensitivity analysis using propensity score as a continuous variable in a multivariable logistic regression model yielded similar results (odds ratio: 1.026, 95% CI: 0.828-1.250). Conclusion: Atypical antipsychotic use was not associated with hospitalization for pneumonia in typical versus atypical antipsychotic drugs. While this indicates that there is no added safety concern for users of atypical antipsychotics, it also suggests there is no added advantage of atypical use, espe- cially in patients at high risk for pneumonia.

PMH3

RISK OF HIP FRACTURE IN ELDERLY MEDICARE BENEFICIARIES USING ATYPICAL OR TYPICAL ANTIPSYCHOTICS: A PROPENSITY SCORE ANALYSIS

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OBJECTIVES: To study the association between the type of antipsychotic drug use and the occurrence of hip fracture in an elderly Medicare population. METHODS: Two years (2006-2007) of 5% national sample of Medicare claims data were used to study the occurrence of hip fracture in new users of atypicals versus typical antipsychotics. We included individuals with continuous Part A, B, and D enrollment in 2006-2007 and who initiated atypical or typical antipsychotic therapy during July 2006-June 2007 were identified from Part D claims data. All study subjects were followed for 180 days from index date, the date of first antipsychotic prescription. Propensity scores were calculated for each individual using a propensity-deriving index derived from baseline characteristics. The neurological adverse events included hospitalization for hip fracture during follow-up. Of these, 40 were typical and 267 were atypical users. In the propensity score matched cohort of 4,660 individuals (2,330 pairs), 40 (1.72%) typical atypical users were found.

CONCLUSIONS: Stimulant use was not significantly associated with diagnoses of neurological adverse events compared to atomoxetine in children. However, sensitivity analysis revealed that the stimulant users had an increased chance of receiving treatments for neurological adverse events. The findings suggest that stimulant use can lead to neurological adverse events which are not documented in ADHD patients but are usually treated.