

Unified Parkinson's Disease (PD) Rating Scale (UPDRS) subscales. The aim was to develop a predictive equation for utilities, suitable for use in an economic model to conduct cost-utility analysis (CUA). **Methods:** Patient-level data were obtained from the National Institute of Neurological Disorders and Stroke (NINDS) Exploratory Trials in PD Long-Term Study 1 (NET-PD LS-1), a multicenter Phase 3 study of creatine in patients on dopaminergic therapy within 5 years of diagnosis (N=1,741; 6 years follow-up). The EQ-5D-3L index scores were calculated using the UK preference weights. The mean utility values and UPDRS scores were comparable between the two treatment arms in the trial, and thus patient-level data were pooled for analysis, as the treatment effect was not statistically significant. The data were analyzed using a mixed-effect model with repeated measures. Candidate predictors were informed by a previous SLR conducted to identify published studies that reported the association between utilities and PD severity (Chandler 2018). **Results:** The average decline in utilities per year was 0.018 and mean utilities at baseline, year 3, and year 6 were 0.81, 0.76, and 0.70, respectively. The significant predictors of utility values included gender and UPDRS I, II, III, and IV. Age was excluded from the multivariate model as it was not statistically significant after adjusting for UPDRS scores. The statistical model performed well in validation analyses—average predicted EQ-5D-3L utilities were compared with the average observed scores for each year post-baseline and were within +/-0.01 at all visits. **Conclusions:** The predictive equation for utilities captures the impact of non-motor and motor-related aspects of the disease as all four UPDRS subscales were identified as significant predictors.

Alternative Medicine & Nutrition - Clinical Outcomes

PAM1 SYSTEMATIC REVIEW OF THE USE OF TETRAHYDROCANNABINOL AND CANNABIDIOL AS A MEDICINAL ALTERNATIVE IN MULTIPLE SCLEROSIS

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Objectives: Due to the evidence of the oral consumption of tetrahydrocannabinol (THC) and/or cannabidiol (CBD) in patients with multiple sclerosis is still contradictory, a systematic review was performed to summarize its effects. **Methods:** The efficacy and safety of oral THC and/or CBD in patients with multiple sclerosis (MS) was assessed compared to standard treatment or placebo or no treatment in spasticity, through a systematic review (SR). Search algorithms were established for Cochrane Library, Pubmed, LILACS and Imbiomed. Meta-analysis (MA), randomized clinical trials (RCT) and cohort studies (CS) published until July 2019 were collected. The risk of bias was assessed by PRISMA, Cochrane GRADE and Consort methodology for MA, RCT and EC, respectively. **Results:** A total of 296 studies were found, one MA, five RCTs and five CS met the inclusion criteria and demonstrated the use of THC and/or CBD in spasticity. The use of THC and/or CBD showed a significant decrease in spasticity in 9 out of 11 studies. These studies had a duration between 12 weeks and 1.5 years. The highest dose was 28 mg for both cannabinoids. One RCT assessed the efficacy of the cannabinoids in 538 patients who did not respond to their actual treatments. In general, the administration of cannabinoids improve the decrease of spasticity in ≥30%. Seven studies reported that patients who received cannabinoids struggle less to fall asleep than placebo arm. Cannabinoids were well tolerated and the main adverse events were dizziness and psychoactive effects. **Conclusions:** Short and long-term studies support the efficacy and safety profile of cannabinoids to decrease the frequency of spasticity in comparison to placebo.

PAM2 ORAL NUTRITIONAL SUPPLEMENTATION CAN IMPROVE POSTOPERATIVE OUTCOMES FOR COLORECTAL SURGERY PATIENTS

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Objectives: Limited real-world evidence exists regarding the impact early post-operative oral nutritional supplementation (ONS) has on health and economic outcomes of patients following colorectal surgery (CRS). We assessed the association between early ONS use and postoperative outcomes in patients undergoing elective open or laparoscopic CRS over a 7-year timeframe. **Methods:** A retrospective analysis was conducted of patients undergoing elective open or laparoscopic CRS between 2008–2014 in US hospitals reporting data in the nationwide administrative-financial database - Premier Healthcare Database. Early ONS and non-early ONS were defined as the presence of charges for ONS before and after postoperative day (POD) 3, respectively. The primary outcome was a composite variable of any infectious complications observed. Secondary efficacy outcomes included intensive care unit

(ICU) admission after POD 3 and gastrointestinal complications. Falsification outcomes included blood transfusion and myocardial infarction. Propensity score matching in addition to univariate analysis was applied to assemble two comparable patient groups and examine postoperative outcomes differences. **Results:** In the overall study population, patients receiving early ONS were older with greater comorbidities, more likely to be Medicare beneficiaries with malnutrition than non-early ONS recipients. Following propensity score matching, the data show that infectious complications were significantly lower in early ONS (n=267) versus non-early ONS (n=534) recipients (6.7% vs. 11.8%, $P<0.03$). Additionally, early-ONS use was associated with significantly reduced rates of pneumonia ($P<0.04$), ICU admissions ($P<0.04$), and gastrointestinal complications ($P<0.05$). There were no significant differences in falsification outcomes. **Conclusions:** In a well-matched sample of CRS patients, early ONS users experienced reduced infectious complications, pneumonia, ICU admission, and gastrointestinal complications. Observed improvements can lead to reduced hospital costs and overall healthcare expenditure for CRS patients. This data highlights the importance of ONS as a cost-saving intervention. Future research employing prospective study designs are needed to provide additional support for the study findings.

Alternative Medicine & Nutrition - Economic Evaluation

PAM3 HOSPITAL NUTRITION PROGRAM INFORM COST SAVINGS FOR HOSPITALIZED PATIENTS IN MEXICO

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Objectives: Approximately 50% of hospitalized patients are malnourished or at-risk of malnutrition in Mexico. These patients experience poor health outcomes and increased hospital costs. We performed an economic analysis to estimate potential savings associated with the implementation of a hospital-based nutrition care program for patients at malnutrition risk receiving care in Mexico hospitals. **Methods:** The budget impact analysis was performed using previously-published data. Outcomes included length of stay and 30-day readmissions. The model compared patients who were assigned to receive early nutrition therapy (initiated within 24–48 hours of hospital admission) with those assigned to receive standard nutrition therapy (not initiated early). Our model used a 30-day time-horizon and estimated event probabilities based on published data. All costs are reported in 2019 US dollars. **Results:** Average total costs over 30-days were \$3,143 US dollars for patients with early nutrition therapy vs \$4,493 for patients with usual nutrition therapy—a savings of \$1,349 (30% decrease) per nutrition-treated patient. Cost differences between the groups were: \$2,840 vs \$3,589 (21% decrease) for hospital-associated costs and \$303 vs \$904 (60% decrease) for 30-day readmissions. The potential costs savings of total public health expenditure from an early nutrition care program for an estimated 3.19 million hospitalized Mexican patients at malnutrition risk is \$4.3 billion per year. **Conclusions:** The results of the budget impact analysis demonstrated the potential for hospital-based nutrition care programs to improve health outcomes and reduce healthcare costs for hospitalized patients in Mexico. These findings provide a rationale for healthcare institutions to promote awareness and training among the clinical personnel with the purpose of facilitating the implementation of comprehensive nutrition programs for the hospitalized Mexican population at risk for malnutrition.

Alternative Medicine & Nutrition - Epidemiology & Public Health

PAM4 SOCIOECONOMIC DIFFERENTIALS OF CHILD STUNTING IN RURAL AND URBAN AREAS OF ZAMBIA

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Objectives:

- To assess differences in the relationship between socioeconomic status and child stunting in urban and rural areas of Zambia.
- To assess the effect of residence type and socioeconomic status on child stunting in Zambia.

Methods: Using data from children aged 0–59 months from the 2013/14 Demographic Health Survey (ZDHS), this study examined the magnitude of socioeconomic differentials in child stunting between rural and urban areas. It also