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HEALTH RELATED QUALITY OF LIFE IN A NATIONAL SAMPLE OF CAREGIVERS – A MULTILEVEL ANALYSIS

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OBJECTIVES: Individual characteristics along with contextual factors could impact caregiver's health related quality of life (HRQoL), eventually affecting care recipient's disease management. This study attempted to identify individual (age, gender, race, education and employment status) and county-level (median household income) predictors of caregiver's HRQoL. **METHODS:** Data from 2009-2010 Behavioral Risk Factor Surveillance System was used. Only caregivers, identified as adults (≥18 years) indicating provision of regular care/assistance to a friend/family member with a health problem during the past month were included in the analyses. Caregiver's overall HRQoL was measured as the sum of number of physically and mentally unhealthy days and days with activity limitation. Two-level (individuals nested in county) model was tested using proc mixed in SAS 9.3. The model assessed impact of caregiver's age, gender, race, education and employment status along with contextual effects of age and gender on their HRQoL. Median household income for each county was considered as the level-2 predictor. **RESULTS:** A total of 29,945 caregivers in 283 counties were analyzed. The intra-class correlation co-efficient of the null model was 0.0063 indicating a very low proportion of variability in observed score attributable to variability across counties. Consequently, median household income (county level) although significant, had a very small impact (ß=-0.00002; p<0.0001). All individual level factors such as increasing age (ß=-0.016; p<0.0001), being female (ß=-0.305; p=0.0081), white (ß=-0.922; p<0.0001), having higher education (ß=-1.289; p<0.0001) and being employed (ß=-3.468; p<0.0001) had a significant negative impact on caregivers' HRQoL. Random effect of age (ß=0.0004; p=0.0262) was significant whereas impact of gender (ß=0.4885; p=0.0543) did not vary significantly across counties. **CONCLUSIONS:** Most of the impact on caregiver's HRQoL can be explained by individual level factors. County specific median household income practically did not have an impact. Employed caregivers, those with increasing age, employed, whites and females had lower HRQoL score.

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A RETROSPECTIVE, OBSERVATIONAL STUDY OF PATIENT OUTCOMES FOR CRITICALLY ILL PATIENTS RECEIVING PARENTERAL NUTRITION

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OBJECTIVES: To evaluate the clinical and economic outcomes for critically ill patients receiving parenteral nutrition (PN) administered via premixed multi-chamber bag (MCB) or compounded solutions (COM). **METHODS:** A retrospective database analysis of critically ill patients (ICU stay >3 days) receiving PN & discharged between January 1, 2010 and June 30, 2011 using Premier Hospital Database. Patients were identified as receiving MCB or COM based on product description codes. Method of pharmacy compounding (i.e., automated or manual) was not identified. Comorbidities and clinical outcomes were identified using ICD-9 diagnosis codes. All costs reported were for inpatient services only. MCB and COM patients were matched on key patient and hospital characteristics using a propensity score methodology. Multivariate regression models for cost and length of stay used log transformation techniques. **RESULTS:** A total of 42,631 patients met the inclusion criteria (MCB=5,679; COM=36,952) and the final matched population included 3,559 patients from each cohort. Baseline patient and hospital characteristics were well matched between the two groups. Results of multivariate models adjusting for patient characteristics showed no difference in risk of infection and 30-day readmission between groups (OR= 0.966, p = 0.56 and OR=0.915, p=0.25), respectively. Small difference observed in length of stay (MCB=9.40 vs. COM=9.65, p = 0.014). MCB patients incurred about 9.1% less in total costs (MCB=$37,790 vs. COM=$41,569, p < 0.001). **CONCLUSIONS:** Overall patients receiving MCB or compounded PN experienced similar clinical outcomes but those receiving MCB had lower total costs. Any interpretation of the study findings are subject to several limitations most notably the lack of information about compounding method and determinants of prescribing MCB or compounding PN. Additional adequately powered studies that include explicit identification of method for compounding and a well matched cohort on baseline disease status are needed.

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PREVALENCE AND PREDICTORS OF PRESCRIBING POTENTIALLY INAPPROPRIATE ANTICHOLINERGIC MEDICATIONS IN THE ELDERLY

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OBJECTIVES: Medications with anticholinergic properties are frequently associated with severe adverse events in the elderly, and therefore highly anticholinergic agents are considered potentially inappropriate in this population. The objectives of this study were to determine the prevalence and predictors of prescribing potentially inappropriate anticholinergic medications among elderly patients in ambulatory settings. **METHODS:** This study involved analyses of visits by elderly patients (>65 years) in office-based settings from 2009 public use data files of the National Ambulatory Medical Care Survey (NAMCS). The revised 2012 American Geriatrics Society (AGS) Beers criteria were used to identify potentially inappropriate anticholinergic medications. Descriptive analysis was conducted using sampling weights to determine the prevalence of visits involving inappropriate anticholinergic medications irrespective of diagnosis. Multiple logistic regression within the framework of Andersen Behavioral Model (ABM) was used to determine the predictors of potentially inappropriate anticholinergic medications in the elderly. **RESULTS:** A total of 279.5 million visits (26.93% of all clinic visits) to physician offices in 2009 involved elderly patients. Approximately 13.33 million visits (4.77% of all clinic visits by the elderly patients) involved at least one potentially inappropriate anticholinergic medication. The most frequently used anticholinergics were antihistamines followed by antispasmodics and skeletal muscle relaxants. Factors positively associated with inappropriate anticholinergic prescribing were female gender, major reason for visit, number of medications prescribed and specialty. Factors negatively associated with inappropriate anticholinergic prescribing were age, total number of chronic conditions and region. **CONCLUSIONS:** Nearly one in twenty visits by the elderly involved prescribing of potentially inappropriate anticholinergic medications. These prescribing patterns raise quality of care concerns owing to the significant adverse events associated with their use in the vulnerable population.

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USING A HA-CMC BARRIER TO AVOID PELVIC OR ABDOMINAL ADHESION: COST-BENEFIT ADVANTAGES IN A PRIVATE HEALTH CARE SETTING

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OBJECTIVES: To demonstrate net costs reduction obtained by the prophylactic use of a HA-CMC* pellicle during some kinds of abdominal and pelvic surgeries. **METHODS:** A cost-benefit economic model was developed to compare options of adopting or not the use of HA-CMC barriers during abdominal / pelvic surgeries as a prophylactic way to avoid adhesions in these sites and one of major consequences, the small bowel obstruction. Data of costs of care for the treatment of small bowel obstruction were obtained from a 16-million lives databank of private health care providers. Data on probabilities were obtained from scientific literature for gathering risks of adhesion and other outcomes, as so the efficacy of the bio-absorbable pellicle to avoid adhesion. **RESULTS:** In the population and period studied, it were identified 9002 patients submitted to pelvic and abdominal procedures, which showed average costs of US$ 2,607.90 and US$ 5,394.67, respectively, for each case of intervention. Into this same population, the cost of interventions to treat adhesions has shown an average cost of US$ 3,918.29. It was assumed that the cost of using HA-CMC (1-3 unities) varies from US$ 262 – 786, and the efficacy of this kind of prophylaxis varies from 54% to 78% and 47% to 61% for gynaecologic and abdominal procedures, respectively. It was demonstrated that the net savings would be 6% to 17% for gynaecologic procedures and 3% to 7% for abdominal surgeries. **CONCLUSIONS:** Considering the frequency and average costs of each re-operation needed to treat the small bowel obstructions due abdominal and pelvic adhesions, as the cost of prophylaxis using biodegradable barriers, it was clearly demonstrated that this prophylaxis results in savings from the perspective of the third part payers. [*HA-CMC: hyaluronic acid – carboxymethylcellulose (Seprafilm®, Sanofi)]

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MINIMALLY INVASIVE COSMETIC PROCEDURES: PATIENT MOTIVATION AND SATISFACTION

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OBJECTIVES: Cosmetic surgery has decreased in the recent economic downturn; however, some minimally-invasive cosmetic procedures saw an increase in the same period. Studies show that work environment behavior, treatment and earnings are influenced by an employee's physical appearance. This study aims to assess the motivations of patients for obtaining these procedures, types of procedures obtained and satisfaction with outcome. **METHODS:** Self-administered questionnaire was given to 39 established patients at an academic plastic surgery clinic. Data variables included age, sex, gender, marital status, overall health, employment and economic status, procedure type, motivating factors and patient satisfaction. Personal identifiers were not collected. Procedure costs were an out-of-pocket expense for all participants. **RESULTS:** Of 39 participants [90% >40 yrs, 64% employed, 59% annual household income >$100K], 37 reported reasons for obtaining procedures."To appear refreshed" (70%) and "to look younger" (65%) were most commonly reported motivations. Of those employed (n=25), 12% reported a job-related reason. Among the 34 reporting procedure type, 83 procedures [per patient (n): range: 1-7; mean: 2.4] were obtained: injectable fillers (*n*=29), botulinum toxin type A injection (*n*=25), micro-dermabrasion (*n*=13), non-ablative laser rejuvenation (*n*=10), chemical peel (n=3) and thermacool (n=3). Of 31 reporting satisfaction data, 84% stated that the procedure(s) met expectations and 79% would repeat the same, or have another, non-surgical procedure. While 51% reported a negative impact on household income from the economic downturn, only 3 (10%) patients would not repeat the procedures due to cost. **CONCLUSIONS:** This study provides insight into patients' choices of minimally invasive non-surgical cosmetic procedures, motivations for obtaining them and satisfaction with outcome. In this limited sample, employment-related and economic factors did not dominate; however, this result may differ in a broader sample. Understanding motivating factors and patient satisfaction can improve approach to patient consultation, and practice management.

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A COMPARISON OF THE COST-EFFECTIVENESS OF LOW-COST UNREIMBURSED HEALTH TECHNOLOGIES AND COMMONLY REIMBURSED DRUG THERAPIES

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