**PDB75**

THE IMPACT OF HOSPITAL DAYS ON CALCULATION OF FDC FOR DIABETES MEDICATIONS

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**OBJECTIVES:** Proportion of days covered (FDC) is a common method to measure medication acquisition behavior. Hospitalizations during an observation period may impact FDC calculation, because independent medication acquisition behavior during hospital stays is involuntary and cannot be accurately measured. The purpose of this study was to examine three methods of adjusting for hospital days when calculating FDC, and assess their impact on FDC. **METHODS:** Medical and pharmacy claims from a commercial Midwestern insurer were used. Population identification criteria included continuously enrolled subjects from January 2007 to December 2009, with diabetes (medical claim with primary or secondary ICD-9 code 250.xx during 2008 also used to establish index date), no long-term care or medication acquisition behavior. Hospitalizations during an observation period were defined as 365 days from index date. FDC (number of days supplied with diabetes drug / number of days from first diabetes drug acquisition to observation end) was calculated in three ways: 1) without hospital days adjustment; 2) adjusting the denominator for hospital days; 3) adjusting the numerator and denominator for hospital days. One way ANOVA and sensitivity analysis were used to examine the difference in FDC estimates. **RESULTS:** A total of 24,072 subjects met study criteria and had mean hospital days of 0.86 (SD = 7.09). FDC results were as follows: No hospital days adjustment 66.16% (SD = 0.39), adjusting denominator 66.24% (SD = 0.39), and adjusting both numerator and denominator 66.33% (SD = 0.39). No significant difference existed between the three calculation methods was found (p = 0.89). Sensitivity analysis indicated that when average total hospital days reached approximately two days, estimated non-adjusted FDC was significantly lower (p < 0.05).

**CONCLUSIONS:** Among subjects with diabetes followed for 365 days, mean total hospital days was small, and impact on FDC calculations was non-significant. As total hospital days increase, FDC estimates can be affected and adjusting for hospital days should be considered.

**PDB76**

DESIGNING A SERVICE FRAMEWORK FOR ELECTRONIC PERSONAL HEALTH RECORDS: A PATIENT-CENTRED APPROACH

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**OBJECTIVES:** The objectives of this study were to gain a better understanding of patient preferences for the attributes of an electronic personal health record (ePHR) service that supports diabetes self-management, and to gain an understanding of any factors that might influence their preferences. **METHODS:** Adaptive choice-based conjoint analysis was used to examine patient preferences. A web-based survey was developed comprising six ePHR service attributes. Hierarchical Bayes estimation was used to quantify patient preferences while latent Class Analysis was used to segment the sample. The Patient Activation MeasureTM was used to determine patient level of activation for diabetes self-management. Simulations and sensitivity analyses were run to uncover the complex effects of ePHR attributes on patient overall utility of the service. Patients’ willingness to pay was calculated using simulations of preference shares for three commercially available ePHRs and sensitivity analyses were run to uncover the complex effects of ePHR attributes. **RESULTS:** A total of 15,876 patients met study criteria. 49.4% resided in a comprehensive mandate state. Fewer patients met study criteria. 49.4% resided in a comprehensive mandate state. Fewer patients in comprehensive mandate states were identified prior to 2006 (52.0%) compared to state mandate type (comprehensive versus non-comprehensive), age (<38y) were more likely to have a live birth (OR 2.70; 95%CI 1.84 to 4.00), and to exchange their health information with their physician or nurse, once a month, at no cost. Monthly service fees were considered the most important attribute. Preference analysis indicated that vitamin C supplementation reduces lead levels of blood in adult subjects exposed to lead. The data showed raised levels of lead in study subjects of both groups (21.74 ± 1.81), compared to the safe limit (< 10 mcg/dl) recommended by WHO. The treatment with vitamin C (500 mg) reduced the lead levels to 16.81 ± 1.80 mcg/dl (N = 29) after 15 days treatment (P < 0.01), while the lead levels after 30 days treatment was further reduced to 13.61 ± 1.50 mcg/dl (N = 36, P < 0.001 compared to control, 21.74 ± 1.82). In the second group, subjects, which received 1000 mg vitamin C, the lead levels after 15 days of treatment was 15.80 ± 0.89 mcg/dl (N = 33, P < 0.001), with no further drop (P = 0.05) after 30 days treatment, as the resultant lead level was 14.64 ± 0.75 mcg/dl (N = 33). **CONCLUSIONS:** The data indicate that vitamin C has a dose and time-dependent lead-detracting effect and that vitamin C supplementation may be an effective, safe and economical method in reducing blood lead levels in chronically exposed subjects such as traffic police.

**PH1**

COMPARISON OF IN VITRO FERTILIZATION TRENDS AMONG INSURED PATIENTS IN MANAGED CARE IN THE UNITED STATES; COMPARISON OF STATES WITH AND WITHOUT MANDATED COMPREHENSIVE FERTILITY COVERAGE

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To study the impact of state mandate type on in vitro fertilization (IVF) outcomes using a claims database. **METHODS:** PharMetrics® data for patients with continuous eligibility for 12 months before and after first gonadotropin-releasing hormone agonist or antagonist prescription (index date) between January 1, 1999 and May 31, 2009. Patients with a prescription for follicle stimulating hormone, human chorionic gonadotropin, or evidence of an interaction. **RESULTS:** As expected, the Physical and Mental groups had depressed PCS and MCS scores (6–7 and 11–12 points, respectively) vs. Healthy subjects. In the Physical group, a comorbid mental CC further depressed PCS and MCS (3–5 and 13–14 points). In the Mental group, a comorbid physical CC further depressed MCS and PCS (4–5 points and 11–16 points). All results persisted across gender. **CONCLUSIONS:** Repeat results confirm the presence of either a comorbid physical or mental CC led to further decrements in both PCS and MCS. Findings underscore the complexity of managing patients with multiple CCs and importance of screening for and treating both physical and mental CCs to optimize patient outcomes. Longitudinal analysis is required to understand the implications of comorbid CC patterns on health outcomes over time.

**PH2**

LEAD DETOXIFYING EFFECT OF VITAMIN C IN TRAFFIC POLICE SUBJECTS

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**OBJECTIVES:** Lead toxicity has been labeled as a major health problem globally with limited therapeutic options. Literature reveals controversial reports on the lead detoxifying potential of vitamin C. The aim of this study was to see if vitamin C supplementation reduces lead levels of blood in adult subjects exposed to lead. **METHODS:** After ethical approval and informed consent the traffic police study subjects (n = 50) were randomly divided into two groups of 40 subjects. One group received 500 mg vitamin C, while the second group was given 1000 mg orally daily for a period of one month. Blood samples were collected at 0, 15, and 30 days of treatment and lead levels were analyzed from the FCSIR Lab, Karachi. Lead was also measured in blood by ICP-mass spectrophotometry. Results showed raised levels of lead in study subjects of both groups (21.74 ± 1.82 and 22.51 ± 1.82 mcg/dl, mean ± SEM, N = 40) compared to the safe limit (< 10 mcg/dl) recommended by WHO. The treatment with vitamin C (500 mg) reduced the lead levels to 16.81 ± 1.80 mcg/dl (N = 29) after 15 days treatment (P < 0.01), while the lead levels after 30 days treatment was further reduced to 13.61 ± 1.50 mcg/dl (N = 36, P < 0.001 compared to control, 21.74 ± 1.82). In the second group, patients, which received 1000 mg vitamin C, the lead levels after 15 days treatment was 15.80 ± 0.89 mcg/dl (N = 33, P < 0.001), with no further drop (P = 0.05) after 30 days treatment, as the resultant lead level was 14.64 ± 0.75 mcg/dl (N = 33). **CONCLUSIONS:** These data indicate that vitamin C has a dose and time-dependent lead-detracting effect and that vitamin C supplementation may be an effective, safe and economical method in reducing blood lead levels in chronically exposed subjects such as traffic police.

**PH3**

HEALTH-RELATED QUALITY OF LIFE (HRQOL) OF PATIENTS WITH CHRONIC CONDITIONS: EXCESS BURDEN OF COMORBID PHYSICAL AND MENTAL CHRONIC CONDITIONS

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**OBJECTIVES:** We used a new US population dataset to quantify the burden of chronic conditions. Subjects were selected from the SF-36v2 Health Survey as a comprehensive health survey to test the incremental physical and mental health burden of a comorbid mental CC among patients with physical CCs; and of a comorbid physical CC among patients with mental CCs. **METHODS:** We created four groups: ‘Healthy’ (no lifetime mental or physical CC), ‘Physical’ (told by MD they had 1+ physical but no mental CCs) ‘Mental’ (told they had 1+ mental but no physical CCs), ‘Physical and Mental’ (1+ mental and 1+ physical CCs). Each CC was further classified by diagnostic category. Multivariate regression models, overall and within gender and diagnosis, yielded group mean SF-36v2 PCS and MCS scores, controlling for age and group age x group interaction. **RESULTS:** As expected, the Physical and Mental groups had depressed PCS and MCS scores (6–7 and 11–12 points, respectively) vs. Healthy subjects. In the Physical group, a comorbid mental CC further depressed PCS and MCS (3–5 and 13–14 points). In the Mental group, a comorbid physical CC further depressed MCS and PCS (4–5 points and 11–16 points). All results persisted across gender. **CONCLUSIONS:** Repeat results confirm the presence of either a comorbid physical or mental CC led to further decrements in both PCS and MCS. Findings underscore the complexity of managing patients with multiple CCs and importance of screening for and treating both physical and mental CCs to optimize patient outcomes. Longitudinal analysis is required to understand the implications of comorbid CC patterns on health outcomes over time.
OBJECTIVES: Evaluate comparative effectiveness and economic impacts of banked donor milk for premature infants to support evidence-based decision-making for implementing a public milk bank managed by a bank in the province of Quebec. METHODS: A systematic review of the literature was performed to identify clinical trials or donor milk compared to formulas for reducing complications in preterm or very low birth weight (VLBW) infants. Epidemiology and costs of these complications were obtained from provincial databases (Régie de l’Assurance Maladie du Québec, Ministère de la Santé et des Services Sociaux) to estimate the economic impact of using banked donor milk in this vulnerable population. Milk bank budget was estimated in the context of the Quebec blood bank.

RESULTS: Evidence available indicates that the major benefit associated with the use of banked donor milk compared to formula in premature or VLBW infants is a reduction in the incidence rate of necrotizing enterocolitis (NEC). The results of this study showed a 70% reduction in the rate of necrotizing enterocolitis in premature infants. The long-term cost of antenatal care was GH¢159,913.34 (US$110,285.06) and spontaneous vaginal delivery was GH¢37.64 (US$25.96). The results of the study showed that the financial cost of antenatal care was GH¢289,094.96 (US$199,375.83), postnatal care was GH¢1,358,647.98 (US$936,998.61) was spent in 2009 for maternity services for Osu, Akosombo and Klottey Polyclinics antenatal GH¢15.12 (US$10.43), postnatal GH¢24.03 (US$16.58) and normal deliveries GH¢51.03 (US$35.19) whereas that for Adab-Makola Polyclinic antenatal GH¢63.54 (US$43.82) and normal deliveries GH¢51.03 (US$35.19).

CONCLUSIONS: The study showed that the financial cost of antenatal care was GH¢289,094.96 (US$199,375.83), postnatal care was GH¢1,358,647.98 (US$936,998.61). The results of the study showed that the financial cost of antenatal care was GH¢289,094.96 (US$199,375.83), postnatal care was GH¢1,358,647.98 (US$936,998.61) spent in 2009 for maternity services for Osu, Akosombo and Klottey Polyclinics antenatal GH¢15.12 (US$10.43), postnatal GH¢24.03 (US$16.58) and normal deliveries GH¢51.03 (US$35.19) whereas that for Adab-Makola Polyclinic antenatal GH¢63.54 (US$43.82) and normal deliveries GH¢51.03 (US$35.19). The results of the study showed that the financial cost of antenatal care was GH¢289,094.96 (US$199,375.83), postnatal care was GH¢1,358,647.98 (US$936,998.61).