

TIP-records, time period, beneficiary age, gender, and drug plan (MA-PD, PDP). A generalized linear mixed model was fitted for the assessment, using AIC for model selection. **RESULTS:** Each additional TIP-record generated was significantly associated with a higher total drug cost ($p < .0001$); however, this effect was attenuated over time, as would be expected when the TIP-record was successfully acted upon. A successful TIP-record was associated with an 18% reduction in cost at the beginning of the study, falling to 7% at 18 months. On average, MA-PD beneficiaries had a cost which was 1.62 times higher than those from the PDP; male beneficiaries had an average cost which was 4.8% higher than their counterparts. **CONCLUSIONS:** Cost-management TIP-records demonstrated a significant decrease in total prescription drug cost upon successful completion, suggesting targeted medication reviews could be used as a drug cost saving strategy for Medicare Part D plans.

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USE OF ACUPUNCTURE AND ASSOCIATED FACTORS AMONG THE ELDERLY: A RETROSPECTIVE POPULATION-BASED COHORT STUDY

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OBJECTIVES: While the use of acupuncture services covered by National Health Insurance (NHI) in Taiwan increased, it is unclear how reasonable its utilization is. The aim of this study was to explore the acupuncture service utilization among the elderly and its potential contributing factors. **METHODS:** The retrospective cohort study was conducted using two million random samples of Taiwan National Health Insurance Research Databases. Those elderly patients without cancer diseases and ever used acupuncture services among the Chinese medicine (CM) users in 2008 were considered as acupuncture users. Their counterpart non-acupuncture elderly CM users were identified based upon the pre-specified propensity score matching approach. The demographic characteristics, disease statuses, health care utilization, anti-blood clotting medications, pain medications among these two groups were compared using descriptive statistics, Chi-square and ANOVA. The univariate and multivariate logistic regression tests were performed to explore the factors associated with the ever use of acupuncture services. **RESULTS:** Of 47,273 elderly patients ever used CM service, 12520 (32.3%) ever utilized acupuncture services in 2008. 12,494 elderly patients in each group were identified. After adjusting for other factors, those CM use elderly who made outpatient visits more than 2 times, with neurovascular diseases, diabetes mellitus, lower back pain, ever took aspirin, warfarin, NSAID, gabapentin during six months before the first use of CM tended to use acupuncture services. In contrast, those CM use elderly who were aged 75 to 84, prescribed with more than 10 items of medications, with chronic lung disorders, osteoporosis tended not to use acupuncture services. **CONCLUSIONS:** Approximately one-third of CM use elderly ever made acupuncture services. More attention should be made towards those patients who made more outpatient visits, with certain chronic disorders and ever took blood-clotting and pain medications. Further study to explore the corresponding outcomes of acupuncture uses among the elderly is needed.

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WHAT DETERMINANTS HELP PREDICT READMISSION IN A TEACHING HOSPITAL

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OBJECTIVES: Reducing readmissions is a National Health Service (NHS) Key Performance Indicator. Ambulatory care units may provide financial savings, but high quality and effective service delivery is dependent on having an understanding of an individual hospital's admissions. Comparison of patients with single or multiple comorbidities on admission or in other words multiple admission diagnoses, may help plan and deliver appropriate health care and support services in the most appropriate setting. We compared patients with multiple admission diagnoses to patients with one single admission diagnosis, to investigate whether there are differences in patient demographics, length of stay and readmission. **METHODS:** We conducted a retrospective audit of all non-elective adult acute medical admissions over a 6 week period. We collected information on patient demographics, ICD-10 diagnosis and length of hospital stay. We reviewed all electronic discharge summaries and grouped admissions according to ICD-10 classification. We matched patients with multiple diagnoses to patients with similar ICD-10 diagnosis, without other co-morbidities. The length of stay, and readmission rates were also recorded and compared. **RESULTS:** A total of 863 admissions were analysed. We matched 41 patients with multiple co-morbidities and same admission diagnoses to patients discharged with a comparable single ICD-10 diagnosis. Both groups had similar female to male ratio. The mean age in both groups was 65 ($p=0.42$). However, the length of stay was statistically significant ($p=0.002$) between the two groups (multiple diagnosis 12 days vs 6 days for single diagnosis). Moreover, patients with multiple admission diagnoses had higher readmission rates within a week and a month (0 patients with single admission diagnosis vs 5 patients with multiple admission diagnoses). **CONCLUSIONS:** Both groups had similar demographics, but co-morbidities can lead to longer hospital stay, and increase risk of hospital readmission. Patients with multiple co-morbidities should have more detailed discharged planning by multidisciplinary team. Patients without multiple co-morbidities can be safely managed in an ambulatory care setting.

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BREAST CANCER INTEGRATED CARE: A RAPID-HTA

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OBJECTIVES: Breast cancer is one of the commonest cancers worldwide. The care management of patients with cancer is complex, which may lead to suboptimal, fragmented and discontinuous treatment. Integrated care pathways have begun to receive greater attention and support because of the possibility to reduce this fragmentation and achieve better results for the patient and the health care system

at an acceptable cost. The objective of this study was to perform a rapid-HTA to evaluate the effectiveness of integrated care in reducing the mortality rate of breast cancer. **METHODS:** A literature review was performed via PubMed, LILACS, the Cochrane Library, Center of Reviews and Dissemination, and REBRATS databases. All studies that met the inclusion criteria were appraised according to the GRADE and their level of evidence according to the Oxford Centre for Evidence Based Medicine. This HTA was performed following the "Rapid-HTA Guideline" published by the Brazilian Ministry of Health. **RESULTS:** 242 studies were retrieved among those databases. 3 cohort studies and 1 systematic review met the inclusion criteria. One cohort study associated a reduction in the mortality rate, statistically significant, after the implementation of the breast cancer integrated care. The systematic review concluded that there are few high quality studies evaluating the impact of integrated care on the breast cancer mortality. However, its authors didn't challenge the impact of integrated care on the breast cancer management nor its potential psychosocial benefits. Intrinsically, they stated, this type of disease management is associated to a low rate of mortality, but there is a lack of high quality studies. **CONCLUSIONS:** There are few studies assessing the effectiveness of breast cancer integrated care programs in reducing the mortality rate among those women. The final recommendation is weak in favor of this health technology and we suggest a systematic review to search and evaluate the existing evidence.

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THE AFFORDABLE CARE ACT AND PHARMACY BENEFIT MANAGERS: HEALTH CARE EXCHANGES AND PROJECTED OUTCOMES

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OBJECTIVES: The Affordable Care Act (ACA) was signed into law on March 23, 2010. The ACA was developed to increase affordability and accessibility to health care. The purpose of this review was to provide an overview of the impact of the ACA on pharmacy benefit managers (PBMs) with respect to benefit design changes, health care exchanges and challenges. **METHODS:** PubMed, Google Scholar, APhA and AMCP websites were searched for articles from 2008 to 2013. This timeframe was selected because the ACA became officially recognized in 2010, when signed into law. Keywords used in the search were "pharmacy model", "affordable care act", "pharmacy benefit", "benefit design changes", "health care exchange", and "outcomes." Each reference was evaluated against the following inclusion criteria using a step-wise approach; 1) the article included information on formulary changes, health care exchanges or projected outcomes 2) the article mentioned benefit designs and pharmacy benefit managers. Articles were summarized based upon publication year, methods and findings. **RESULTS:** A total of 24 articles were retrieved. Studies show that there will be 25-30 million newly insured patients over 7-8 years as a result of the ACA. PBMs will continue to be interested in increasing coverage of generic products on plan formularies. The number of medications and types of diseases covered through the growth of specialty pharmacy is also projected to increase. Under the ACA exchanges, PBMs are required to confidentially disclose the percent of all prescriptions provided through retail pharmacies and the types of rebates and discounts received. Although challenging, PBMs can expect increases in mergers, creating larger PBM companies. **CONCLUSIONS:** With an increase in the number of members covered and types of coverage offered, the Affordable Care Act is projected to have positive effects on the growth and expansion of services offered by PBMs. However, PBMs may face challenges accommodating larger populations.

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IMPACT OF EDUCATIONAL INTERVENTION ON QUALITY OF LIFE OF PATIENTS NEARING END OF LIFE: AN EVIDENCE BASED ANALYSIS

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OBJECTIVES: To systematically review studies that include educational interventions for health care providers, patients nearing the end-of-life (EoL), and their caregivers to improve patient or caregiver quality of life (QoL). **METHODS:** This review was conducted according to published guidelines using a pre-specified protocol. Patients nearing EoL were defined as having a progressive, life-threatening disease with minimal possibility of obtaining remission, stabilization or modification of the course of illness. Primary studies including any educational intervention in EoL care among health care providers, patients and caregivers measuring patient or caregiver QoL using validated scales were included. **RESULTS:** Our search of 11 databases revealed 2468 citations. After duplicate removal, title and abstract screening, we reviewed 71 full text of which eight were included in the review. There were five randomised trials, two cohort studies and one quasi experimental study among the eight included studies. Five studies were from United States, one each from Spain, Saudi Arabia and China. Patient population included those with advanced cancer in five studies (4 RCT'S and 1 cohort study) and advanced chronic disease in three studies (1 cluster randomised, 1 quasi-experimental and 1 cohort study). The educational intervention was described among clinicians, nurses, EoL patients and their caregivers. Comparators were usual/standard care in five studies with a pre-post impact evaluation in three other studies. All included studies defined and used validated scales to measure QoL. Patient QoL was reported in seven of the included studies, of which four studies showed improvement ($P<0.001$) and three showed no significant change ($p>0.05$) in patient's QoL. Of the four studies that reported caregiver QoL, three showed improved QoL whereas one study showed decline in caregivers QoL ($p=0.02$). **CONCLUSIONS:** This review may help shape Ontario health policy to provide appropriate education to anyone involved in EoL care.

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MAMMOGRAPHY PRESCRIPTIONS IN UNITED STATES PRIMARY CARE SETTING - PHYSICIAN'S COMPLIANCE WITH GUIDELINES

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