PRSS3
EFFECTS OF EDUCATIONAL INTERVENTIONS FOR SELF-MANAGEMENT OF ASTHMA IN CHILDREN AND ADOLESCENTS: AN UPDATED SYSTEMATIC LITERATURE REVIEW AND META-ANALYSIS

Nguyen L1, Woodruff PG2, Clark NM2, Grum CM2, Guevara JP2, Wolf FM4
1University of Washington, Seattle, WA, USA, 2University of Michigan, Ann Arbor, MI, USA, 3University of Pennsylvania School of Medicine, Philadelphia, PA, USA

OBJECTIVES: To update a previously published systematic literature review and meta-analysis investigating the effectiveness of asthma self-management education programs on health outcomes in children. METHODS: The updated search is through June 2010 and included published meta-analyses or journals from MEDLINE, EMBASE, and the Cochrane Central Register of Controlled Trials. All available English abstracts were reviewed and the full text was consulted as necessary to clarify eligibility status. Eligible studies were randomized controlled trials or controlled clinical trials that evaluated outcomes in children ages 2-18 years with a diagnosis of asthma. Data were extracted on the study population, intervention types, sample size, sample size calculations, loss to follow-up, outcomes, and methodological quality of the studies. Data were pooled using both fixed effects and random effects models. Effect estimates were plotted in forest plots and heterogeneity was assessed visually and statistically using the I² statistic. All data were analyzed using RevMan software.

RESULTS: Preliminary results with the addition of several recent studies suggested that educational programs for the self-management of asthma in children were associated with modest to moderate improvement in several outcome measures, such as the mean number of emergency department visits (n=17 studies; SMD: −0.67; 95% CIs: −1.23, −0.11; I² = 97%) and number of hospitalizations (n=11 studies; SMD: −0.50; 95% CIs: −0.70, −0.29; I² = 62%). The results for random effects models were similar to fixed effects models.

CONCLUSIONS: Incorporating educational programs for self-management into the routine care of children and adolescents with asthma may significantly improve outcomes. Further improvement could be achieved by increasing the presence of small or inconclusive studies, allowing for analysis of subgroup effects and the comparative effectiveness of alternative strategies. Results are preliminary and a full update of the meta-analysis is forthcoming.

PRSA1
PATIENT SELF-MANAGEMENT OF ASTHMA: A STUDY IN AN EMERGENCY ROOM OF A CHEST HOSPITAL IN DELHI, INDIA

Kotwani A, Shende S, Vijayan V
V. P. Chest Institute, University of Delhi, Delhi, India

OBJECTIVES: A chronic disease requires lifelong adherence to medication and optimal self-management. Studies indicate that worldwide self-management of asthma is poor and evidence-based suitable interventions are needed for asthma control. The present study was conducted to investigate the pattern of self-management in asthmatic patients in Delhi, India. METHODS: Adult asthma patients (n=200) visiting emergency room (December 2008-December 2009) of a tertiary care referral chest hospital for asthma exacerbation completed self-report questionnaire on self-management of asthma after stabilization. Written informed consent from patients and ethical clearance from institute was obtained. Questionnaire contained 51 questions having six domains: Socio-demographic profile, clinical profile, morbidity and activities of living, access to care, asthma attack prevention and emergency actions. RESULTS: Study population had 64% female, 51.5% between 30-40 year and 10% were illiterate. Patients were enrolled as asthma out-patient, 35% as in-patient for 5.4±4.4 years. 40% patients except one were prescribed corticosteroid +beta2 agonist inhalers. Patients visiting ER and having unscheduled visit to doctor at least twice in the previous 12 months were 86.5% and 91% respectively. Patients were classified according to the disease severity as having persistent asthma (83% of patients). Majority of patients (94%) had at least one hospitalization in the study hospital for usual source of treatment and in case of exacerbation. Not all patients had meter dose inhalers at home. Only 2% patients were prescribed peak flow meter and one patient reported using it regularly and keeping diary. No statistical difference was found in pattern of self-management by patients having persistent or intermittent asthma. Except one, no patient had any written action plan for treatment or for emergency. CONCLUSIONS: Findings revealed poor self-management of asthma and lack of communication between doctor and patient. Immediate action is needed to impart knowledge of self-management and written action plan for asthma patients by physician.

PRSA5
PHARMACY QUALITY INDICATORS USING MISSISSIPPI MEDICAID: TESTING QPA-ENDORSED STARTER SET MEASURES AND 2010 TEST MEASURES

Thumula V, Banahan BFI, Bentley JP, West-Strum D
University of Mississippi, University, MS, USA

OBJECTIVES: (1) To understand how multiple pharmacy uses affect the ability to compute pharmacy quality indicators (PQIs). (2) To determine the number of pharmacies that have sufficient Medicaid claims to compute PQIs. METHODS: An observational cohort study of Mississippi Medicaid data for 2002 and 2004 was conducted. Patients with medication claims related to each measure, continuously enrolled, and without institutional care during the measurement year were eligible. The PQIs in the Pharmacy Quality Alliance (‘QPA’)-endorsed starter set were computed at the patient level and aggregated to the pharmacy level by attributing all fills to the pharmacy that dispensed the most (and alternative criteria of 50% and 75%) of their drugs for the measure. Pharmacies with at least 30 eligible members per state were considered representative. Additionally, the 2010 PQA test measures (adherence to anticonvulsants and antiretrovirals, statin use with CAD, asthma management) were evaluated. RESULTS: The majority of patients (three-fourths) obtained over 90% of their diabetes and cardiovascular medications from one pharmacy. Around 85% and 97% of the patients obtained over 75% and over 50% of their medications from a single pharmacy respectively. Only 55% of patients received antiretroviral medications from a single pharmacy. For the adherence/ persistence measures, 6.3% to 63.5% of the pharmacies had reliable measures in 2002. 78.2% of the pharmacies could be included for the high-risk medications in elderly measure and 2.7% of the pharmacies qualified for the CAD measure. Less than 10 pharmacies qualified for the asthma management and antiretroviral medication adherence measures. A similar pattern was observed in 2004.

CONCLUSIONS: The attribution strategy proposed by PQA can be made more stringent without severely limiting the number of pharmacies with measures. Using a pharmacy attribution criteria of 50% or 75% of fills from the same pharmacy will result in more reliable PQI metrics.

PRSB5
HOSPITALIZATIONS, MEDICAL MANAGEMENT AND SWITCH THERAPY PATTERNS IN THE COPD MEDICARE POPULATION

Eysyolok Z1, Hay J2, Sarocco P3, Karafilidis I2, Walsh J2
1University of Southern California, Los Angeles, CA, USA, 2Sunovion Pharmaceuticals Inc., Marlborough, MA, USA

OBJECTIVES: To evaluate whether hospitalization rates differ between COPD patients who switched therapy and/or have better medical management in the Medicare care population. METHODS: This is a cross-sectional retrospective study of COPD Medicare patients between January 2006 and December 2008. Eligible patients had at least one claim for COPD in 2006 as 1st diagnosis and were also continuously eligible for parts A, B and D during the study period. Patients enrolled in Medicare Advantage, diagnosed with asthma and younger than 65 years old were excluded. The treatment was defined as switching all drugs taken in the previous year. Probability of hospitalization was estimated using a logit model with regressors of age, gender, race, previous hospitalization, previous therapy, previous COPD test, physician visits and comorbidities. RESULTS: A total of 44,933 patients were included in the study. The average age was 73 years old. 51% of the patients were female (61.4%), and white (89.8%). Congestive heart failure, diabetes and hyperlipidemia were the most common comorbidities. The most frequently prescribed therapy was oxygen (around 30%), followed by Short-Acting Beta Agonists (14%). Patients who received greater COPD medical management as defined as COPD therapy (including higher OCS use), number spirometry tests and physician visits for COPD were associated with decreased likelihood of hospitalization in 2008 (p-value < 0.05). Moreover, therapy discontinuation, new therapy starters, weight loss, dyspnea, dyspnea exacerbation and reduced activity were associated with increased COPD hospitalization risk while depression, congestive heart failure with lower hospitalization risk (p-values < 0.05). Also, in this population around 21% visited a specialist physician, 14% had ER visit and 20% were hospitalized in COPD in 06, 07, 08. CONCLUSIONS: The findings suggest that patients maintaining the same therapy across years and patients with greater COPD medical management are less likely to be hospitalized compared to patients with worse disease control.

PRSB37
THE PRICE NEGOTIATION ON PHARMACEUTICALS AFTER THE INTRODUCTION OF POSITIVE LIST SYSTEM IN SOUTH KOREA

Lee EK, Soookyung Women’s University, Seoul, South Korea

OBJECTIVES: In Korea, the price of new drug has been decided through price negotiation after evaluation for reimbursement in decision process since 2007. The price for new drug was negotiated considering price of reference drugs, budget impact analysis, substitution rate, etc. This study attempted to analyze states of price negotiation. The questionnaire consisting of 25 items having six domains: Socio-demographic profile, clinical profile, morbidity and activities of living, access to care, asthma attack prevention and emergency actions. RESULTS: Study population had 64% female, 51.5% between 30-40 year and 10% were illiterate. Patients were enrolled as asthma outpatient, 35% as inpatient for 5.4±4.4 years. 40% patients except one were prescribed corticosteroid +beta2 agonist inhalers. Patients visiting ER and having unscheduled visit to doctor at least twice in the previous 12 months were 86.5% and 91% respectively. Patients were classified according to the disease severity as having persistent asthma (83% of patients). Majority of patients (94%) had at least one hospitalization in the study hospital for usual source of treatment and in case of exacerbation. Not all patients had meter dose inhalers at home. Only 2% patients were prescribed peak flow meter and one patient reported using it regularly and keeping diary. No statistical difference was found in pattern of self-management by patients having persistent or intermittent asthma. Except one, no patient had any written action plan for treatment or for emergency. CONCLUSIONS: Findings revealed poor self-management of asthma and lack of communication between doctor and patient. Immediate action is needed to impart knowledge of self-management and written action plan for asthma patients by physician.