(13–31) and 6 (2–12). A human factors analysis of the circumstances of each case attributed 79% to a combination of user error and device malfunction or flawed alarm design. None of the events were documented in the medical record or in incident reports. CONCLUSIONS: Rates of alarm related problems in two ICUs were much higher than reported in a routine reporting system and indicate an understudied important threat to patient safety. An assessment of risk factors for these events is in progress.

**ARTHRITIS/OSTEOPOROSIS—Clinical Outcomes/Healthcare Policy**

**PAR 1 USE OF ALTERNATIVE THERAPY, QUALITY OF LIFE, AND HEALTHCARE SPENDING IN CHINESE PATIENTS WITH OSTEOARTHRITIS**

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**OBJECTIVES:** To describe the pattern of use of alternative therapy, healthcare spending, and health-related quality of life in Chinese osteoarthritis (OA) patients in Hong Kong. **METHODS:** We conducted a retrospective, cross-sectional study of 547 adult Chinese patients in Hong Kong who have been diagnosed as having OA. We defined the alternative therapy as 1 of the 11 therapies outlined in international publications. OA patients who used alternative therapies and those who did not were compared for their socio-economic status, disease profile, personal healthcare spending, and quality of life. Quality of life was measured using a Health Utility Index based upon SF-36 health surveys. We further investigated the association between the use of alternative therapies and personal healthcare spending, and its association with the Health Utility Index, in multivariate regressions controlling for socio-economic variables, years of OA, and the severity of OA. **RESULTS:** Of the 547 OA patients, 219 (38.2%) had used 1 or more of the 11 alternative therapies for OA. The most commonly used therapies, and the percentage of patients who used them, were acupuncture (21.4%), exercise (12%), herbal remedy (5.9%), lifestyle diets (5.8%), energy healing (4.4%), and chiropractic manipulation (3.8%). On average, payment for alternative therapies constitutes 5% of the overall personal healthcare spending, and 29% of the out-of-pocket payments. **CONCLUSION:** The use of alternative therapies was statistically significantly associated with higher personal healthcare spending, after adjusting for socioeconomic variables, years of OA and severity of OA. The use of alternative therapies was not significantly associated with an improvement in quality of life in the regression analysis.

**PAR 2 EFFECTS OF A PRIOR AUTHORIZATION POLICY FOR CYCLOOXYGENASE-2 INHIBITORS ON HEALTH-RELATED OUTCOMES IN A MANAGED CARE MEDICAID POPULATION**

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**OBJECTIVES:** Prior authorization (PA) is a poorly studied, but commonly employed policy used by health care payers to manage the rising costs of pharmacy benefits. Our objective was to evaluate the impact of PA policies for cyclooxygenase-2 (COX-2) inhibitors on prescription drug and medical service utilization in a managed care Medicaid population. **METHODS:** The analysis was conducted from January 1, 1999 to October 31, 2001 when PA policies were enacted for celecoxib and rofecoxib. Monthly annualized rates of utilization were estimated using medical and prescription drug billing records. An autocorrelation-corrected segmented linear regression model was developed to evaluate trends in utilization temporally associated with PA initiation. The primary analysis evaluated utilization of related drug classes (e.g. conventional NSAIDs, PPIs), and office, emergency, and hospital encounters in all enrolled members. A secondary analysis was performed in a cohort of prior NSAID (conventional and COX-2) users. **RESULTS:** After each PA was activated, utilization of celecoxib and rofecoxib were immediately reduced from 1.07 to 0.53 days supply/person-year (58.9% reduction; 95% CI: 50.0%–67.9%) and 0.96 to 0.52 days supply/person-year (58.9% reduction; 95% CI: 40.5%–59.1%), respectively. Growth in utilization was slowed for both agents (p < 0.0001). Utilization changes were not observed in other drug classes. Similar trends were observed in the secondary analysis. No changes in medical service use were noted with the exception of emergency room visits, which increased by 18.0% (95% CI: 2.2%–33.9%) and exhibited a higher growth rate after the PA for celecoxib was enacted. A similar, non-significant trend was observed in the secondary analysis. **CONCLUSIONS:** Utilization of rofecoxib and celecoxib was reduced substantially following the implementation of a PA policy. No important concomitant changes in the use of other drug classes were detected. The small increase in ER visits observed after the celecoxib PA was activated is a concerning finding that warrants further study.

**PAR 3 IMPACT OF THE INTRODUCTION OF THE COX-2 INHIBITORS ON THE ANALGESIC MARKET IN A PUBLIC EMPLOYEES INDEMNITY INSURANCE PROGRAM: A FIVE YEAR STUDY**

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**OBJECTIVES:** To analyze the market impact of the introduction of the COX-2 inhibitors, Celebrex and Vioxx,