and literature. Overall savings were calculated by subtracting the costs of complica-
tions and treatment associated with BAL adaption level for a given year from costs associated with current BAL adaption level and adding the incremental costs. Scenario analyses examined cost impacts for hospitals of various sizes, with different BAL adaption levels and rates. Results: Base case scenario showed year 1 cost savings were $62,846 (US$) and year 2 savings were $2,794. At the pharmacy level, despite higher fluid costs, estimated savings were $9,836 in the first year and $389,262 over 5 years. Alternate scenario analyses involving larger populations reached similar conclusions. In general, early BAL adaption demonstrated increased cumulative savings over the 5 year period.

Conclusions: Increased BAL usage represents an opportunity for US hos-
pitals and pharmacy departments to reduce complication-related costs associated with managing NSIs patients.

PSY25

THE BUDGET IMPACT OF TREATING PATIENTS WITH NON-DIABETIC PERIPHERAL NEUROPATHIC PAIN (PNP) WITH CAPSAICIN 8% PATCH FOR EITHER PREGABALIN-NAIVE OR PREGABALIN-TREATED PATIENTS IN SCOTLAND

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2Clinical Practice Guidelines in Scotland recommend pregabalin in primary care if first- and second-line treatments (amitriptyline or gabapentin) are ineffective or poorly tolerated. Capsaicin 8% patch (QUINTENDA™) is currently used as an add-on to pregabalin and only within a specialist setting. Scottish prescribers have made two suggestions to improve current care; first, using capsaicin 8% patch instead of pregabalin following failure of initial treatment; and second, examining whether capsaicin 8% patch can provide more benefits than pregabalin. We built a decision analytic model to evaluate the potential budget impact from implementing the suggested treatment practice. Methods: The model assessed a hypothetical cohort of 100 patients with polyneuropathy treated by a primary care physician, a pain specialist, or both (integrated care). Two patient cohorts were modelled: pregabalin-naive (i.e. previously untreated with) or pregabalin-treated. Costs were estimated for the base-case scenario as a secondary care clinical perspective. In the base-case scenario, adverse events (ORAEs), IV PCA medication/device errors, supplies, equipment, hospital staff time and drug for the management of postoperative pain. Model considered urinary retention, nausea, vomiting, and any additional resource consumption associated with the administration of treatment. This analysis estimated the total cost and resource use associated with utilizing fentanyl iontophoretic transdermal system (IVS) versus standard intravenous (IV PCA) morphine for POPM. A decision analytic model was developed to evaluate the economic value of fentanyl ITS compared to IV PCA morphine for a hospital performing inpatient orthopedic surgery. The model considered resource use and direct costs for opioid-related adverse events (ORAEs), IV PCA medication/device errors, supplies, equipment, hospital staff time and drug for the management of postoperative pain. Model assumptions were informed by published literature, the PREMIER hospital database, and new data, and included data from clinical trials, and online sources. RESULTS: The orthopedic patient population included knee arthroplasty (Clinical Classification Software CCS=152), total or partial hip replacement (CCS=153) laminitomy with excision intervertebral disc (CCS=3), and spinal fusion (CCS=158). The duration of pain management modeled was 48 hours. Fentanyl ITS use reduced the patient costs associated with ORAEs by $402, IV PCA medication/device errors by $29, and the direct costs of supplies and equipment by $98. Fentanyl ITS reduced RNs time associated with PCA administration tasks by 36% and eliminated tasks performed by the pharmacy, central supply and bioengineering staff for a savings of $35. CONCLUSIONS: Within the hospital setting, this analysis calculated the economic impact of fentanyl ITS may reduce the economic impact associated with ORAEs, pump and programming errors, labor and supply/equipment costs compared to IV PCA, resulting in a potential economic benefit of $579 per patient over a 48-hour period.

PSY27

AN ECONOMIC ANALYSIS OF POSTOPERATIVE PATIENT MANAGEMENT WITH THE FENTANYL IONTOPHORETIC TRANSDERMAL SYSTEM

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Objectives: When selecting postoperative pain management (POPM) for an individual patient, an effective pain relief strategy for the patient, and a reduction in medication and resource use is critical. The purpose of this study is to evaluate the economic and resource use associated with utilizing fentanyl iontophoretic transdermal system (IVS) versus standard intravenous (IV PCA) morphine for postoperative pain management (POPM). Methods: A cost calculation model was developed to evaluate the economic value of fentanyl ITS compared to IV PCA morphine for a hospital performing inpatient orthopedic surgery. The model considered resource use and direct costs for opioid-related adverse events (ORAEs), IV PCA medication/device errors, supplies, equipment, hospital staff time and drug for the management of postoperative pain. Model assumptions were informed by published literature, the PREMIER hospital database, and new data, and included data from clinical trials, and online sources. RESULTS: The orthopedic patient population included knee arthroplasty (Clinical Classification Software CCS=152), total or partial hip replacement (CCS=153) laminitomy with excision intervertebral disc (CCS=3), and spinal fusion (CCS=158). The duration of pain management modeled was 48 hours. Fentanyl ITS use reduced the patient costs associated with ORAEs by $402, IV PCA medication/device errors by $29, and the direct costs of supplies and equipment by $98. Fentanyl ITS reduced RNs time associated with PCA administration tasks by 36% and eliminated tasks performed by the pharmacy, central supply and bioengineering staff for a savings of $35. CONCLUSIONS: Within the hospital setting, this analysis calculated the economic impact of fentanyl ITS may reduce the economic impact associated with ORAEs, pump and programming errors, labor and supply/equipment costs compared to IV PCA, resulting in a potential economic benefit of $579 per patient over a 48-hour period.

PSY24

COMPARING THE ECONOMIC BURDEN OF VARIOUS DISEASES FROM A PAYER’S PERSPECTIVE IN CHINA

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Objectives: When making reimbursement decisions, policy-makers in China need to consider the economic impact of the treatment, which is determined by both epidemiological factors and treatment costs. In this study, we compare the total annual budget impact of different diseases of various treatment costs and prevalence rates. Methods: We considered six diseases in our analysis: hemophilia B, HIV, hypertension, non-small cell lung cancer (NSCLC), tuberculosis, and type 2 diabetes mellitus (T2DM). These choices provided a sample of highly prevalent diseases (hypertension) and rare diseases (hemophilia B) as well as high cost (NSCLC) and low cost (type 2 diabetes) treatments. The budget impact was calculated by multiplying the number of patients by the cost per patient. The data sources for prevalence and cost were obtained using a search of previously published literature with the following criteria: in English, with abstract, published within the past ten years. All costs were converted to USD using (1 USD = 6.07 RMB). Results: China has a population of 1.3 billion, and the most common disease of our selection was hypertension (254 million) followed by T2DM (114 million), HIV (1.4 million), tuberculosis (1.3 million), NSCLC ($15,000), and hemophilia B ($625 million). The annual per-patient-cost was highest for hemophilia B ($11,670) followed by NSCLC ($11,566), HIV ($2,242), tuberculosis ($724), hypertension ($367), and T2DM ($194). The budget impact was highest for hypertension ($93 billion) followed by T2DM ($22 billion), NSCLC ($6 billion), HIV ($3 billion), tuberculosis ($900 million), and hemophilia B ($625 million). Conclusions: When determining the economic impact of a treatment on a health system, payers need to consider both the cost of the treatment as well as the size of the patient population. Though a rare disease may have high cost of treatment, its budget impact is relatively small because of the population size.

We performed a cost analysis of voriconazole versus caspofungin as first-line treatment for IA in a hypothetical cohort of patients with IA who had undergone bone marrow or hematopoietic stem-cell transplantation (BMT/ HCT) from a Chinese hospital perspective. Methods: A decision analytic model with a 30-day time horizon was constructed to estimate the potential treatment cost savings of alternative treatments for IA. Each pathway in the model was defined by probabilities of an event to occur and costs of clinical outcomes. Outcome probabilities and cost inputs (in 2014 RMB) were estimated based on clinical literature, clinical trials, and recommendations from expert panels. In the base case, patients who failed first-line therapy were assumed to either experience a single switch between study drugs or add on the other study drug as second-line treatment option. Base-case evaluation included drug management costs and additional hospitalization costs due to severe adverse events. Results: Based on clinical trial treatment success rates of 52.8% (voriconazole) and 33.0% (caspofungin), and LOT=15-day /IV =15 day oral therapy for caspofungin 30mg IV, the lower overall treatment cost than caspofungin (585,514 vs 67,822) despite its higher drug cost. Cost savings were primarily due to the higher treatment efficacy and shorter IV LOT associated with voriconazole. Voricon and drug prices were the main cost driver. Results from scenario analyses indicate that voriconazole is cost-saving compared to caspofungin in the treatment of invasive aspergillosis from the Chinese hospital perspective.

PSY23

AN ECONOMIC ANALYSIS OF POSTOPERATIVE PATIENT MANAGEMENT WITH THE FENTANYL IONTOPHORETIC TRANSDERMAL SYSTEM

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Objectives: When selecting postoperative pain management (POPM) for an individual patient, an effective pain relief strategy for the patient, and a reduction in medication and resource use is critical. The purpose of this study is to evaluate the economic and resource use associated with utilizing fentanyl iontophoretic transdermal system (IVS) versus standard intravenous (IV PCA) morphine for postoperative pain management (POPM). Results: A cost calculation model was developed to evaluate the economic value of fentanyl ITS compared to IV PCA morphine for a hospital performing inpatient orthopedic surgery. The model considered resource use and direct costs for opioid-related adverse events (ORAEs), IV PCA medication/device errors, supplies, equipment, hospital staff time and drug for the management of postoperative pain. Model assumptions were informed by published literature, the PREMIER hospital database, and new data, and included data from clinical trials, and online sources. SOURCE: The orthopedic patient population included knee arthroplasty (Clinical Classification Software CCS=152), total or partial hip replacement (CCS=153) laminitomy with excision intervertebral disc (CCS=3), and spinal fusion (CCS=158). The duration of pain management modeled was 48 hours. Fentanyl ITS use reduced the patient costs associated with ORAEs by $402, IV PCA medication/device errors by $29, and the direct costs of supplies and equipment by $98. Fentanyl ITS reduced RNs time associated with PCA administration tasks by 36% and eliminated tasks performed by the pharmacy, central supply and bioengineering staff for a savings of $35. CONCLUSIONS: Within the hospital setting, this analysis calculated the economic impact of fentanyl ITS may reduce the economic impact associated with ORAEs, pump and programming errors, labor and supply/equipment costs compared to IV PCA, resulting in a potential economic benefit of $579 per patient over a 48-hour period.