practice patterns. CONCLUSIONS: The interviews allowed to extrapolate European findings to the Asia-Pacific region and therefore improved the validity of the cost-effectiveness models developed for these countries. This methodology represents an acceptable alternative when more time-consuming and costly chart reviews cannot be repeated in multiple countries. The significant economic burden of OAG was confirmed.

PSS4 THE COST-EFFECTIVENESS OF TAVLOPROST PRESERVED WITH POLYQUAD IN NEWLY TREATED OPEN-ANGLE GLAUCOMA PATIENTS IN 7 ASIAN COUNTRIES Gerlitz L1, Lamotte M2, Caputo J2, Tan R4
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OBJECTIVES: Topical prostaglandin analogues are safe and effective to treat ocular hypertension (OHT) and open-angle glaucoma (OAG). The preservatives used in prostaglandin, however, drops increase the short- to long-term risk of developing ocular surface disease (OSD). We aimed to compare the 10-year costs and clinical outcomes with Polyquad®-preserved travoprost to costs and outcomes with benzalkonium chloride (BAK)-preserved prostaglandins in 7 Asian countries. METHODS: A semi-Markov health economic model was developed. Treatment-naïve OHT/OAG patients were initiated on treatment with Polyquad®-travoprost, latanoprost or bimatoprost (BAK® line) with possible timolol add-on (BAK® line, fixed combination). The literature provided information on the increased risks of treatment change and OSD development due to exposure to BAK, and disease evolution. Further treatment lines, including eye laser/surgery, and other medical resource use were determined from data from a German observational clinical study (COIQI) that were validated and adapted in each country by clinical experts. Local unit costs were collected and applied to each resource (All-Payer perspective, 2011 costs). Country-specific discounting was used. RESULTS: Compared to BAK-preserved prostaglandins, this treatment strategy was dominant (15% less OSD; total costs reduced 2% in Thailand to 19% in South Korea), or else cost-effective (incremental cost-effectiveness ratios $1,000US$ per OSD-free year gained). In each country, the estimated reductions in glaucoma medical (non-drug) management costs (range from 18% to 22%), and total OSD costs (from 25% to 27%), were significant as per second-order sensitivity analysis. As a long-term consequence of the modelled lower persistence and impaired compliance the presence of OSD was associated with higher total costs. CONCLUSIONS: This multi-country model estimated that treating Asian OHT/OAG patients with Polyquad®-preserved preserved travoprost would generate significantly less OSD compared to BAK-preserved prostaglandins, together with savings on glaucoma and OSD management costs.

PSS5 NEW FORMULATION OF TAVLOPROST REDUCES DRY EYE OCCURRENCE AND COSTS IN GLAUCOMA PATIENTS: MODEL-BASED RESULTS FOR HONG KONG Tham CC1, Leung CK1, Li FC1, Gerlitz L2, Lamotte M, Caputo J2, Tan R4
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OBJECTIVES: Prostaglandin analogues are approved as a first-line treatment of ocular hypertension (OHT) and open-angle glaucoma (OAG). Existing molecules are often preserved with benzalkonium chloride (BAK), which is known to create dry eye. We aimed to evaluate the long-term impact of preserving travoprost in prostaglandins on OHT/OAG treatment outcomes and costs in Hong Kong. METHODS: A semi-Markov model was developed to evaluate the 10-year dry eye rate and management costs of OHT/OAG patients initiating a treatment with either Polyquad®-preserved travoprost or bimatoprost and latanoprost (both BAK®-pre- served). The probability of experiencing dry eye was obtained from literature. Switch rates to surgical or medical treatment were taken from UK/US health care databases. Local unit costs (All-payer perspective, 2011 private and public tariffs) were applied to the medical resource collected in a German retrospective chart review, re-assessed and adapted to the local practice by 3 clinical experts. Discount rate was 3% for costs and outcomes. A second-order sensitivity analysis provided 95% confidence intervals. RESULTS: The 10-year clinical and economic outcomes were significantly improved with travoprost compared to BAK-preserved latanoprost: dry eye rate decreased from 53% [46.5%, 59.8%] to 35% [31.0%, 39%], the proportion of patients reaching a 3rd line treatment from 85% [80.8%, 90%] to 57% [44.6%, 70%], the surgery rate dropped from 3.0% [2.4%, 4.0%] to 1.3% [1.0%, 1.8%] while the total costs were significantly reduced by 25% [21.0%, 31%] (public setting) and 29% [24.0%, 36%] (public setting) vs. latanoprost, mostly due to a 33% reduction in glaucoma non-drug management costs. The benefits vs. bimatoprost were similar. The impact of the presence of OSD on costs was sizeable, and the treatment switch rate was an important cost driver. CONCLUSIONS: This model suggests a favorable impact of using travoprost rather than BAK-preserved bimatoprost on 10-year persistence in glaucoma patients, which generates savings on total costs (20-30%) due to reduced medical management costs.

PSS6 HEALTH ECONOMIC EVALUATION OF PRESERVATIVE-FREE TAVLOPROST VERSUS PRESERVED LATANOPROST IN THE TREATMENT OF OPEN-ANGLE GLAUCOMA OR OCULAR HYPERTENSION (OH) Makino Y1, Charlette T2, Tilden D3, Cottrell S3, Budde M, Christova L, Van Bavel J2, West B,8,8Goteborg AM2
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OBJECTIVES: Safety and efficacy of travoprost for open-angle glaucoma or ocular hypertension (OH) have been proven in clinical trials. While travoprost and latanoprost have similar efficacy, the absence of the preservative benzalkonium chloride (BAK) in travoprost may make it a preferred alternative for patients who are intolerant of preservatives. However, this method-ology reduces certain symptoms associated with irritation and drying. Reduced ocular symptoms offer clinical/QoL benefits and cost savings associated with less rescue medication use (artificial tears). Further, the single-dose unit formu-la of travoprost is predicted to lessen medication wastage and thus generate cost savings compared with latanoprost (dispensed in multi-dose bottles). These cost-savings are quantified and cost-effectiveness ratios are calculated in the current study. METHODS: Resource usage and associated costs are quantified to determine cost savings offered by travoprost over latanoprost. Douility from adverse ocular symp-toms is also determined. A Markovian decision analytical model was used to evaluate travoprost’s superior tolerability to QALYs. The perspective of this analysis is the Australian health care system. RESULTS: Preservative-free travoprost was shown to be a highly cost-effective, most likely dominant, strategy over preserved latanoprost. The likely cost savings due to reduced irritation, informed by the pattern of latanoprost utilization observed in the Australian drug reimbursement system (PBS), in itself would make travoprost a cost-saving strategy versus latanoprost. The available evidence suggested that 47.6% of patients on preserved latanoprost experience some adverse ocular symptoms, while this is expected to be 29.0% with preservative-free travoprost. Average costs savings attributable to reduced artificial tear use was estimated to be 23.64 per patient per year. This superior tolerability is also estimated to produce an incremental QALY of 0.0107 for preservative-free travoprost each year when compared with preserved latanoprost. CONCLUSIONS: Preservative-free travoprost is a highly cost-effective, most likely dominant, strategy over preserved latanoprost.
OBJECTIVES: To evaluate the annual health expenditure (AHE) in patients with neurogenic detrusor overactivity (NDO) after spinal cord injury (SCI). METHODS: Data containing 2 million randomly sampled individuals from the National Health Insurance Research Database (NHIRD) in Taiwan were used. Patients with emergency department visits or hospitalizations for SCI defined by ICD-9 codes 806.X and 807.X between 2006 and 2010 and who were not retrieved. NDO was defined as the diagnosis defined by ICD-9 codes 596.5 and 788.3 (excluding 596.3, paralysed of bladder); 2) pharmacological treatment for neurogenic voiding dysfunction and urinary symptoms such as alpha blockers, antimuscarinic agents, and cholinergic agents; and 3) procedures such as indwelling or intermittent catheterization defined by NHIC codes 470.01C and 471.01C. All patients were followed for one year. The total AHE, as well as three subcategories, hospital, outpatient, and pharmaceutical treatment related cost were calculated respectively. Covariates including patient’s demographic, hospital length of stay, concomitant medications, and comorbidity conditions were considered in the final multiple regression to compare the AHE between NDO and non-NDO group. RESULTS: A total of 941 eligible individuals with SCI were identified from 2006 to 2008, of whom 165 (17.5%) were NDO cases with a mean age of 54 years (range 17 to 86). The total AHE was 494,325 (499,250 and 108,529 ± 147,287) per T. N. dollars in non-NDO and non-NDO group, respectively. After adjusting by regression model, the total AHE was higher in NDO (p = 0.036, SE = 21,082, p = 0.01) than non-NDO group. Higher AHE was also shown in NDO in each subcategory比较 with non-NDO group. CONCLUSIONS: The cost of the financial burden of NDO was shown in this study. Higher AHE associated with NDO may also reflect the higher severity of SCI or other comorbid conditions.

PUC4 TOTAL ECONOMIC BURDEN OF BOTH PERITONEAL DIALYSIS AND RENAL ANEMIA TREATMENT

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OBJECTIVES: To estimate the total economic burden of both peritoneal dialysis and renal anemia treatment in China. METHODS: Eight medical centers with regular follow-up system for peritoneal dialysis patients in 6 provinces were selected for prospective observation research. Inclusion and exclusion criteria were set down before the study through the discussion with clinical experts. Patients had been recruited in the study since July of 2011. Patient baseline characteristics, treatment and expenditure for both outpatient and inpatient during 3-months follow-up duration were recorded. Direct medical costs included fee for registration and services, medical examination, drugs and medical consumable materials. Direct non-medical costs included transportation fee and nursing fee. Off-work days were collected to estimate indirect costs. RESULTS: A total of 149 patients with records of 703 outpatient visits and 19 inpatient stays were collected. Mean age of patients is 50.09 years and roughly 3.47 years of peritoneal dialysis treatment and 2.35 years of EPO treatment. The average frequency was 1.41 visits in medical centers per month and 1.23 visits in community health centers. The average cost of EPO was CNY1,151 (US$184) per month with average dosage of 1644IU. Total economic burden per peritoneal dialysis patient was CNY7,756 (US$1210) including CNY9,163 (US$1445) for direct medical costs, CNY210 (US$33) for indirect medical costs and CNY383 (US$61) for indirect costs. The share of total economic burden related to GDP per capita ranged from 1.3 times to 6.4 times in 6 sampling provinces. CONCLUSIONS: The total economic burden of both peritoneal dialysis and renal anemia treatment seems relatively high, which needs more attention from the government and society.

PUK3 INFLUENCE OF SOCIAL SECURITY ON HEALTH EXPENDITURE AMONG PATIENTS WITH NEUROGENIC DETRUSOR OVERACTIVITY AFTER SPINAL CORD INJURY

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OBJECTIVES: To evaluate the influence of social security on health expenditure of patients with neurogenic detrusor overactivity (NDO) after spinal cord injury (SCI). METHODS: Data containing 2 million randomly sampled individuals from the National Health Insurance Research Database (NHIRD) in Taiwan were used. Patients with emergency department visits or hospitalizations for SCI defined by ICD-9 codes 806.X and 807.X between 2006 and 2010 and who were not retrieved. NDO was defined as the diagnosis defined by ICD-9 codes 596.5 and 788.3 (excluding 596.3, paralysed of bladder); 2) pharmacological treatment for neurogenic voiding dysfunction and urinary symptoms such as alpha blockers, antimuscarinic agents, and cholinergic agents; and 3) procedures such as indwelling or intermittent catheterization defined by NHIC codes 470.01C and 471.01C. All patients were followed for one year. The total AHE, as well as three subcategories, hospital, outpatient, and pharmaceutical treatment related cost were calculated respectively. Covariates including patient’s demographic, hospital length of stay, concomitant medications, and comorbidity conditions were considered in the final multiple regression to compare the AHE between NDO and non-NDO group. RESULTS: A total of 941 eligible individuals with SCI were identified from 2006 to 2008, of whom 165 (17.5%) were NDO cases with a mean age of 54 years (range 17 to 86). The total AHE was 494,325 (499,250 and 108,529 ± 147,287) per T. N. dollars in non-NDO and non-NDO group, respectively. After adjusting by regression model, the total AHE was higher in NDO (p = 0.036, SE = 21,082, p = 0.01) than non-NDO group. Higher AHE was also shown in NDO in each subcategory比较 with non-NDO group. CONCLUSIONS: The cost of the financial burden of NDO was shown in this study. Higher AHE associated with NDO may also reflect the higher severity of SCI or other comorbid conditions.