NICE first. Nineteen of the 46 submissions were appraised by NICE; 10% of the cases were first assessed by NICE, 60% were appraised by NICE second, and in 30% of the cases, NICE were the last in the sequence to appraise. It is interesting to note that the rate of acceptance by the SMC was approximately 65% regardless of whether the intervention was appraised by the SMC or CATH first. In contrast, the acceptance rate for CATH was observed to be much higher when interventions were appraised by the SMC first compared to when CATH conducted the first appraisal; 76% and 20% respectively. CONCLUSIONS: The SMC have generally received submissions before NICE and CATH. In comparison, NICE were rarely the first to appraise an intervention. Reviewing the sequence in which submissions are appraised by each of these bodies and the influence of this on the guidance issued may inform future strategic planning of submissions.

IDENTIFYING KEY DECISION PATHWAYS IN HEALTH TECHNOLOGY ASSESSMENT AROUND THE WORLD

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OBJECTIVES: Health technology assessment (HTA) is a process used to evaluate emerging and existing technologies (e.g., pharmaceuticals, medical devices, and diagnostics), and to determine how these technologies will impact health care service delivery and society. Despite the growing importance of HTA as a decision tool to govern the adoption process for emerging technologies, a systematic and hierarchical approach to characterize the decision-making process used by various countries has not been developed. The objective of this study was to model the decision pathway that describes the underlying decision-making structure and process for HTA in eight selected countries. METHODS: Members of the International Society for Pharmacoeconomics and Outcomes Research Special Interest Group for HTA performed research online to identify resources that described health systems and decision pathways for the following countries: Australia, Canada, France, Germany, Spain, Sweden, UK, and the United States. Once proposed decision structures were reviewed by committee members, a unique decision-making model was developed for each country and validated for clarity and accuracy. RESULTS: The HTA decision-making hierarchy developed for each country identified the decision maker as the payer (i.e., person or organization) who makes the final decision for coverage and payment for new technologies. The evaluator was defined as a person or organization that provides input into the decision-making process via HTA development, but did not make the final decision for coverage and payment. The decision-making process referred to the HTA evaluation process, as defined in the public domain, for emerging technologies in consideration for coverage and payment. CONCLUSIONS: Each of the countries examined utilized a unique decision-making structure and maintained detailed processes for HTA input to the final decision maker. Decision pathways for HTA in the countries examined continued to evolve in response to societal needs for emerging technologies.

APPLES AND ORANGES? COMPARATIVE EFFECTIVENESS IN THE UNITED STATES AND OTHER COUNTRIES

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OBJECTIVES: Health technology assessment (HTA) started in the United States (US) to quantify the benefits, harms and costs associated with new technologies. Paralleling methodological advances, applied HTA processes were instituted in many countries to inform decisions about adopting new technologies. Within the context of discussions regarding a new center for comparative effectiveness in the US, we compared HTA of medications in six jurisdictions: Australia, Canada, England and Wales, the Netherlands, Scotland and Sweden. The objective was to identify characteristics of HTA processes and agencies that may inform the structure and operation of a US center for comparative effectiveness. METHODS: We identified characteristics of each health care system and HTA processes, including: the medications reimbursements process; whether recommendations are mandatory; and structure and transparency of the process using the accountability for reasonableness framework. RESULTS: For Australia, England and Wales and the Netherlands, reimbursement decisions are made nationally, while in Canada, Scotland, and Sweden, formularies are maintained regionally. HTA processes range from manufacturer-prepared single product submissions to comprehensive assessments based on de novo analyses. While six jurisdictions have quasi-governmental HTA agencies, the Netherlands relies largely on an algorithmic pricing system. Sweden has two HTA agencies: one for rapid assessment of single medications and another which undertakes multiple-technology assessments involving other funding silos. Scotland, and to lesser extents England and Wales and England, have implemented transparent processes, e.g., by posted meeting minutes and the reasoning for recommendations. CONCLUSIONS: The US health care system is fragmented and characterized by insured populations with different health needs. Characteristics directly relevant to a US centre include having: non-mandatory recommendations; and transparent two-tiered processes. Collecting better evidence on real-world treatment effects – as is being done in some jurisdictions – would increase the number and types of stakeholders who could apply the information for decision-making.

HEALTH CARE USE & POLICY STUDIES – PRESCRIBING BEHAVIOR & TREATMENT GUIDELINES

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OBJECTIVES: To assess the impact electronic prescribing system the use of an has on a provider’s prescribing of low cost generic drugs through lower coding channels. METHODS: Generic, brand, mail/retail, and cost-per-day (costs) for over nine million adjudicated prescriptions dispensed between July 2002 and December 2005 were incorporated into independent multivariable logistic and general linear models to compare prescriptions from 468 providers prescribed before and after using an electronic prescribing system and 286 “no system” control providers. Separate models for ACE Inhibitors, ARB and ARB Combinations, H2 Antagonists, HMG Inhibitors, NSAIDs, PPIs, and SSRIs classes included independent variables for: provider, specialty, and electronic prescribing system use (no, little and regular use prescribed >50 prescriptions/month); patient sex, age (continuous), and regimen status; claim month and distribution channel (except in mail/retail models). Significance was a p-value ≥0.01. RESULTS: Generic and mail prescriptions were generally more likely to be prescribed from providers with regular use (ORs: 0.80[0.70,2.0]) and less likely from those with little or no use (ORs: 0.67[0.23,2.1]) than prescriptions from the pre-period of providers who became regular users (OR ~ 1.00), with most significant and few exceptions. Costs were generally lower for providers with regular use (CEs: $ -0.33[0.00,0.64] and higher for providers with little or no use (CEs: $ -0.15[0.14,0.74]) than prescriptions from the pre-period of providers who became regular users ($ = 0.00), with some significant and some exceptions. CONCLUSIONS: Similar underlying patterns found across multiple classes provide support for linking regular use of electronic prescribing systems to providers being even more likely to prescribe generics drugs and having them dispersed through mail, both of which likely lower overall costs. Additional effort should be performed to better assess the robustness of these findings as participation expands and in more therapeutic classes.

MEDICARE PART D’S EFFECT ON PRESCRIBING VOLUME: AVERAGE MONTHLY UTILIZATION OF SELECTED HIGH USE DRUGS IN THE PROTECTED CLASSES BY DIFFERENT SPECIALTIES

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OBJECTIVES: To determine whether the implementation of Medicare Part D coverage affected trends in average per physician prescription volume of select drugs in the six classes covered by CMS/Medicare Part D to be medically necessary for reimbursement. To assess these trends over the 2005–2008 period, including the January 1, 2006 implementation of Medicare Part D. To investigate whether prescribers of different specialties were affected to a greater degree than others from their peers. METHODS: For each of the six protected classes defined by CMS (Antineoplastics, Antidepressants, Anticonvulsants, Immunomodulating agents, Antiretrovirals) and the corresponding market basket consisting of the top 2 prescribed anticonvulsants (clonazepam, gabapentin), antidepressants (escitalopram, fluoxetine), antipsychotics (quetiapine, risperidone), HIV/AIDS (emtricitabine/tenofovir, ritonavir) and immunomodulating agents (azathioprine, mycophenolate) were selected based on total prescriptions (TRx) between January 2005 and June 2008. For that time frame, average prescription volume, by individual physician, were collected monthly using SDV Versipan’s VONA and Medscape databases. RESULTS: Of 153 physician specialty/molecule prescription pairs, average monthly prescription volume for the 12 month period after implementation of Medicare Part D (January 2006 – December 2006) coverage increased significantly (p < 0.05) versus the prior 12 months (January 2005-December 2005) for 79% (34/43) of combinations examined, and conversely, a significant (p < 0.05) decrease was observed for 80% (48/60) combinations. CONCLUSIONS: The introduction of Medicare Part D had significant impact on utilization for the majority of high volume drugs in the Medicare Part D designated protected classes. A possible explanation is the reorganization of formulary structures and tier placement for many of these drugs led to pricing changes for patients, which in turn were observed by physicians and led to subtle but significant changes in prescribing behavior. In addition to changes for specialty physicians, significant changes in volume were also noted for GFF/GFM physicians. Ongoing investigation into drug pricing and tier placement may lead to greater clarity.