HEALTH CARE USE & POLICY STUDIES – Health Technology Assessment Programs

QUALITY ASSURANCE OF FOURTH HURDLE WITHIN THE SLOVAK REPUBLIC

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OBJECTIVES: Experience indicated that the quality of economic evaluations submitted in reimbursement decisions and critical appraisals are heterogeneous. The objective of this study was to analyse how the quality of submitted economic studies and related critical appraisals could be improved to develop a policy relevant, publically available Slovak critical appraisal checklist for improving the quality of economic evaluation and budget impact analyses for reimbursement submission of dosciers concerning to drugs and medical devices.

METHODS: We created a working group to review previously submitted economic evaluations and related critical appraisals in order to identify potential technical and methodological problems. The working group consisted of independent academic experts who scrutinized previous submissions and critical appraisals and developed a new checklist. Overall 50 economic evaluations submitted for reimbursement of drugs and medical devices in 2007–2009 were scrutinized.

RESULTS: Evidence suggests that Slovak pharmaceutical expenditures do not result in the most cost-effective outcomes. Several potentially not cost-effective pharmaceuticals have been reimbursed in Slovakia. Economic evaluations of drugs and medical devices are mandatory but the quality of evaluations and critical appraisals are rather poor. Therefore in addition to the available Slovak health economic evaluation guidelines a detailed checklist for appraisal processes have to be prepared. Our analysis shows that the simplified questionnaire, which is currently used for the critical appraisal process within Slovakia should be replaced by a new Slovak critical appraisal checklist, which will be detailed enough to address the most common problems in the local economic evaluations and budget impact analyses for decision making process.

CONCLUSIONS: The transparent method of technology assessment can improve the consistency of reimbursement decisions making related to drugs and medical devices in Slovakia. The current checklist for critical appraisal is not sufficient enough and there is significant room for improvement in this field.

OUTCOMES OF BEDSIDE-BARCODE TECHNOLOGY INTERVENTION ON MEDICATION ADMINISTRATION TIME IN AN INTENSIVE CARE UNIT

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OBJECTIVES: The objective of this study was to evaluate outcomes of a bedside barcode technology intervention on medication administration time in an intensive care unit (ICU). METHODS: A prospective observational time-and-motion experimental study was conducted by considering two medication administration processes (a paper based approach vs. the bedside barcode system) in a large 500+ bed hospital setting. Medication administration by the nurse was operationalized as activities such as direct or indirect patient care, administration, and miscellaneous. Time devoted to complete these medication administration activities were measured separately by means of two pre-calibrated stop watches. Complexity factors of medication administration (age, sex, body-weight, comorbidities, number of drugs administered, and length of ICU stay) were included in linear regression model to predict time required for each of those medication administration activities. RESULTS: One hundred and fifty-one electronically documented medication administrations with the bedside barcode system were evaluated Mean times of direct patient care activity (182.2 ± 131.68 seconds) and administration activity (59.83 ± 74.53 seconds) during bedside barcode medication administration improved significantly in comparison with paper based approach. In the bedside barcode system, significant (p < 0.05) predictors of time associated with direct patient care activity was number of drugs administered, and for indirect patient care activity was comorbidities, and for administration activity was length of ICU stay. CONCLUSIONS: Variables that predict medication administration time in the bedside barcode system were different across the categorized activities. To develop and implement efficient systems, such variables should be monitored and controlled as high cost technology is adopted by hospitals.

DEVELOPING GLOBAL ROAD MAPS FOR REIMBURSEMENT PROCESSES USED IN HEALTH TECHNOLOGY ASSESSMENT: PHARMACEUTICALS, MEDICAL DEVICES, AND DIAGNOSTICS

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OBJECTIVES: Health technology assessment (HTA) is used to evaluate health care technologies (e.g., pharmaceuticals, medical devices, and diagnostics) with respect to their cost and their projected impact on patient outcomes and society. Currently, there is an ongoing initiative by the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) to develop a Road Map that describes the utilization of HTA in health care. The purpose of this study was to develop models for HTA decision-making structures along with reimbursement road maps for several countries. METHODS: Members of the ISPOR Special Interest Group (SIG) for HTA contacted key individuals in several countries, including: Austria, Denmark, Hangary, Ireland, France, Germany, Denmark, UK, Sweden, Australia, Canada, Taiwan, United States, and others. Once decision models and corresponding reimbursement road maps were developed within designated HTA subgroups, the information was disseminated to all HTA committee members for review. After review, the decision models were sent to key stakeholders in each selected country for review and validation. RESULTS: Decision-making structures and review processes for reimbursement were developed for the selected counties. Key decision makers and/or third-party payers (e.g., person or organization) were identified and defined in accordance with their role in the reimbursement process. Evaluators were defined as individuals or organizations that provide input into the decision-making process regarding HTA development, but may not be responsible for final coverage and payment decisions. CONCLUSIONS: Decision-making structures for reimbursement (e.g., coverage, coding, and payment) vary according to the type of product (e.g., pharmaceutical, medical device, diagnostic), the individual country and in some instances, by regions within the country. The HTA SIG will continue to identify and validate HTA decision pathways for reimbursement within each country to provide guidance to manufacturers and policy makers in a way that optimizes efficiencies and supports the ongoing societal needs for access to emergent technologies.

DECISION CRITERIA FOR TECHNOLOGY ACQUISITION IN RADIOONCOLOGY—WHAT REALLY MATTERS?

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OBJECTIVES: The assessment of medical technologies in hospitals is often an unstructured and transparent process, only involving a small group of decision makers. To overcome barriers while discussing or implementing decisions, a clear communication
of how technologies are chosen is essential. The decision criteria and its weights represent the management’s as well as the potential user’s perspective of the technol-
ogy. METHODS: To identify relevant criteria in terms of technology acquisition, a literature review was carried out. As a second step 221 HTA-experts were confronted with criteria on a multi-criteria level, with the task to evaluate their importance and to supplement them. To evaluate the individual weight of each criterion a survey was con-
ducted, including three relevant user groups within the sector of radiology.

For each of the 115 recipients and an overall preference profile was calculated using an AHP-model. The influence of factors such as job, leadership, sex, user, size of hospital and typ of hospital were also analyzed using an analysis of variance.

RESULTS: As result of step one and two the following seven criteria were identified: effectiveness, the need for treatment, patient preferences, usability, cost-effectiveness, organizational impact and budget impact. The overall AHP-model identified the organizational impact (16.9%) as the most relevant criterion, followed by the budget impact (15.7%). The variance analysis showed that all factors except the size of the hospital influence certain criteria of the preference profile in a significant way.

CONCLU-
SIONS: Surprisingly, the organizational impact is the most important criterion directly followed by the budget impact. The organizational impact is today often underesti-
mated. Therefore, organizational barriers exist and can delay or hinder innovation.

To determine essential characteristics of a new technology and to lower barriers regarding its acceptance, the preferences of each group should be evaluated and integrated in decisions.

EVIDENCE USED DURING PHARMACEUTICAL TECHNOLOGY ASSESSMENT

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OBJECTIVES: The purpose of this study is to understand the types of evidence considered and how evidence is used by health care payers and payer intermediary organizations to evaluate prescription drugs and biologics for possible formulary inclusion. METHODS: We conducted semi-structured one-hour telephone interviews with key decision makers at payers and payer intermediary organizations. Respond-
ents included medical and pharmacy directors who actively participate in pharma-
caceutical technology assessment (PTA). Participants were asked to describe their PTA process and to rate the importance of the sources and types of evidence they review.

RESULTS: Pharmacy and medical directors from 15 national and regional health plans, prescription drug plans, and pharmacy benefit managers rated information used for PTA on a scale of 1 (not important) to 5 (very important). While preliminary results indicate that respondents rated peer-reviewed studies as the most important source of information, medico-economic studies (mean = 4.7), technologic assessments such as comparative effectiveness studies (e.g., from AHRQ or Hayes) and internal (health plan) data on utilization were rated almost as highly (4.2 and 4.1, respectively). Medical directors gave comparative effectiveness studies higher ratings than did pharmacy directors (4.7 vs. 3.8; p < 0.001). Among types of evidence, randomized control trials (RCTs) were rated the highest (mean = 4.6); budget impact analyses (mean = 3.1) and pharmaco-
economic studies (mean = 2.9) had substantially lower rating, although both of these received higher ratings from pharmacy vs. medical directors. There was little variation in ratings by payer type. CONCLUSIONS: While it is not surprising that key decision makers highly value RCTs from peer-review literature, other sources of information were rated as having essentially the same importance. Medical and pharmacy directors have significant differences in the importance assigned to certain information. Addi-
tional data will help to explore variations in perceived value of information among different types of PTA staff and potentially differences across payer type.

THE INFLUENCE OF SAFETY ISSUES ON DECISIONS OF CONSULTATIVE COUNCIL OF THE AGENCY FOR HEALTH TECHNOLOGY ASSESSMENT IN POLAND

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OBJECTIVES: Consultative Council (CC) is an independent body playing a central role in decision making of Polish Health Technology Assessment Agency (AHTAPoI).

We were interested in how much safety issues of the appraised technologies concern members of CC and what is the influence of safety issues on CC’s decisions.

METHODS: We analyzed decisions of CC published until the end of 2009 and dis-
tinguish those where safety issues were significant arguments for decline. We indentify the type of key documents quoted in the decisions in order confront them with the type of key documents quoted in the decisions in order confront them with the

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