VP130 Burden Of Illness For Urothelial Bladder Cancer (UBC) In Italy

AUTHORS:

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INTRODUCTION:

Urothelial Bladder Cancer (UBC) is the ninth worldwide most common cancer. In Italy the prevalence of the disease is about 10 percent, representing the third most prevalent cancer with 180,775 cases in men and 42,757 cases in women. The increase in the incidence requires continuous surveillance and care, resulting in a significant burden on Italian Healthcare System, making any improvement to the strategy for diagnosing and treating this disease important to the medical and scientific community. The aim of this study was to evaluate the burden of UBC in the Italian context, collecting and measuring the total costs of the disease.

METHODS:

An economic analysis in the National Health Service perspective was carried out, evaluating in six centers direct costs in terms of outpatient, inpatient and emergency care, pharmaceuticals and follow up procedures and indirect costs in terms of productivity losses. Data were collected through aggregated form reports, focusing on patients with an existing diagnosis of UBC who were taken in charge in the last year. Statistical analysis was conducted in order to explore variations between centers.

RESULTS:

Mean total annual cost per patients was EUR11,310, increasing for disease severity from EUR6,954 for superficial disease to EUR24,896 for metastatic stage. The analysis confirmed a proportional relation between disease severity and disability grade. The total burden of the disease considering all patients, including prevalence and incidence data coming from AIOM guidelines 2015, was EUR2,833,655,822, of which 15 percent is represented by estimated productivity losses.

CONCLUSIONS:

Our analysis represents the first economic burden study of UBC in the Italian context as well as the first real life evidence of the current therapeutic algorithm. This study opens the possibility for further analysis on the indirect costs components that represent a great burden for the society, especially for the stages of the disease with high disability grade.

VP131 Comparison Of Variation Methods For One-Way Sensitivity Analyses

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INTRODUCTION:

A common approach to one-way sensitivity analysis is to vary inputs by a constant percentage. An alternative is to derive ranges using evidence-based probability distributions from published sources. Our objective was to compare one-way sensitivity analysis results when using these two approaches for a reference case model, along with two additional case studies.

METHODS:

For the reference case, we replicated a published Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) cost-effectiveness Markov model (zidovudine versus zidovudine plus lamivudine in the UK) using TreeAge®. Health states included three HIV/AIDS states and death. We generated one-way sensitivity analyses by varying inputs in two ways: (i) using ±15 percent for all inputs, and (ii) using the 2.5 and 97.5 percentile values of the evidence-based probability distributions for all inputs. Our outcome was the mean difference between lower and upper incremental cost-effectiveness ratios (ICERs)

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for each variation method for the ten most influential inputs. We assessed the number of inputs with a mean difference between lower and upper ICERs of >10 percent of the deterministic ICER.

RESULTS:

The deterministic ICER was GBP7,654/QALY (quality adjusted life year) for combination therapy versus monotherapy. The mean difference in ICER uncertainty for the evidence-based vs. ±15 percent variation method was GBP3,251/QALY (p = .0096). Six inputs had a mean difference in ICER uncertainty of >10 percent of GBP7,654/QALY (that is, mean difference in ICER uncertainty > GBP765) for the evidence-based variation method, compared to only two inputs for the constant percentage variation method.

CONCLUSIONS:

For the reference case, the magnitude of uncertainty in the outcome was larger for the evidence-based variation method compared to the constant percentage variation method. Evidence-based uncertainty in inputs should be used in all sensitivity analyses to reflect realistic uncertainty in an outcome and aid decision-making about future research strategies. Additional case studies will be presented using validated models in diabetes and asthma.

VP132 Cost Effectiveness Of A Predictive Risk Model In Primary Care

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INTRODUCTION:

Emergency admissions to hospital are a major financial burden on health services. In one area of the United Kingdom (UK), we evaluated a predictive risk stratification tool (PRISM) designed to support primary care practitioners to identify and manage patients at high risk of admission. We assessed the costs of implementing PRISM and its impact on health services costs. At the same time as the study, but independent of it, an incentive payment ('QOF') was introduced to encourage primary care practitioners to identify high risk patients and manage their care.

METHODS:

We conducted a randomized stepped wedge trial in thirty-two practices, with cluster-defined control and intervention phases, and participant-level anonymized linked outcomes. We analysed routine linked data on patient outcomes for 18 months (February 2013 – September 2014). We assigned standard unit costs in pound sterling to the resources utilized by each patient. Cost differences between the two study phases were used in conjunction with differences in the primary outcome (emergency admissions) to undertake a cost-effectiveness analysis.

RESULTS:

We included outcomes for 230,099 registered patients. We estimated a PRISM implementation cost of GBP0.12 per patient per year.

Costs of emergency department attendances, outpatient visits, emergency and elective admissions to hospital, and general practice activity were higher per patient per year in the intervention phase than control phase (adjusted δ = GBP76, 95 percent Confidence Interval, CI GBP46, GBP106), an effect that was consistent and generally increased with risk level.

CONCLUSIONS:

Despite low reported use of PRISM, it was associated with increased healthcare expenditure. This effect was unexpected and in the opposite direction to that intended. We cannot disentangle the effects of introducing the PRISM tool from those of imposing the

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