

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.  $\pm 15$  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.

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## 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  $\delta = \text{GBP}76$ , 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

QOF targets; however, since across the UK predictive risk stratification tools for emergency admissions have been introduced alongside incentives to focus on patients at risk, we believe that our findings are generalizable.

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## VP133 Patient-Reported Health State Utilities In Neuroendocrine Tumours

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### INTRODUCTION:

Gastroenteropancreatic neuroendocrine tumours (GEP-NETs) are rare cancers most often found in the gastrointestinal system or the pancreas. However, patient-reported health state utilities based on clinical trials have not been previously reported in this disease area.

### METHODS:

The CLARINET study collected the European Organization for Research and Treatment of Cancer (EORTC) QLQ-C30 data from patients in both stable and progressive disease states, although data for the latter were only available during the early stage of progression due to trial design. Using published algorithms, data were mapped to EQ-5D utility values. Random-effects generalized least squares models were used to investigate the impacts of progression status, tumour site and other patient characteristics on mapped utility values.

### RESULTS:

In total, 1,053 observations from 204 patients were mapped to EuroQol (EQ-5D) utilities using the McKenzie mapping algorithm. The final random-effects model included age, gender, baseline utility and progression status as covariates; it was not feasible to investigate time-to-death utility due to a limited number of death in the CLARINET study. Tumour location (midgut versus

pancreas) does not seem to affect utility. However, the difference in utilities based on progression status is statistically significant ( $p < .05$ ) in the base case analysis, and the estimated utilities for stable and progressive disease are .776 and .726, respectively. Furthermore, scenario analyses showed that utility for progressive disease is numerically lower than for stable disease, but this may not be statistically significant in some scenarios.

### CONCLUSIONS:

Patients with GEP-NETs experience worse utility values in the progressive disease state compared to the stable disease state, based on patient-reported health-related quality of life (HRQL) data from the CLARINET study. The decline of utility in the progressive disease state may be underestimated because progressive HRQL data were only collected shortly after the progression event in the trial. The estimated trial-based utilities can be used in future economic evaluations for GEP-NET treatments and to provide more insights to physicians on patient-reported quality of life outcomes in GEP-NETs.

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## VP135 Clustering Surgical Indicators And Predictors Of Catastrophic Expenses

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### INTRODUCTION:

Increasing access to surgical care is crucial in improving the general health status of a population. Despite studies indicating the cross-country differences of general health indicators, there is a scarcity of knowledge focusing on the cross-country differences of surgical indicators. This study aims to classify countries according to surgical care indicators and identify risk predictors of catastrophic surgical care expenditures.