analyses examined the impact of varying different parameters, and the impact of available cases, on base case findings whilst non-parametric bootstrapping examined joint uncertainty.

RESULTS:

At 12 months, the intervention was GBP 26.89 (USD 35.76) (SE 249.15) cheaper than usual care; but this difference was statistically non-significant (p=0.914). At 12 months, a QALY loss of −0.007 was observed in the intervention group confidence interval (95% CI: −0.025–0.012) and a QALY gain seen in the usual care group 0.004 (95% CI: -0.017–0.025). This difference was not statistically significant (p=0.442). The base case analysis gave an ICER of GBP 2,445 (USD 3,252) reflecting that the intervention was less effective and less costly compared to usual care. Sensitivity analyses illustrated considerable uncertainty. When joint uncertainty was examined, the probability of the intervention being cost-effective at a willingness-to-pay threshold of GBP 20,000 per QALY gain was 29 percent and 24 percent at GBP 30,000.

CONCLUSIONS:

Our cost-utility analysis indicates that memory rehabilitation was cheaper but less effective than usual care but these findings must be interpreted in the light of small statistically non–significant differences and considerable uncertainty was evident. The ReMemBrIn intervention is unlikely to be considered cost-effective for people with TBI.

OP60 Optimising Risk-Based Screening: The Case Of Diabetic Eye Disease

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INTRODUCTION:

There is growing evidence that many people attending annual screening for diabetic retinopathy in the United Kingdom (UK) are at low risk of developing the disease. This has led to new policy statements. However, the basis on which to establish a risk-based individualized variable-recall screening program has not yet been determined. We present a methodology for using information on an individual's risk factors to improve the allocation of resources within a screening program.

METHODS:

We developed a patient-level state-transition model to evaluate the cost-effectiveness of risk-based screening for diabetic retinopathy in the UK. The model incorporated a recently developed risk calculation engine that predicts an individual's risk of disease onset, and allocated individuals to alternative screening recall periods according to this level of risk. Using the findings, we demonstrate a means of estimating: (i) a threshold level of risk, above which individuals should be invited to screening, and (ii) the optimum screening recall period for an individual, based on the expected cost-effectiveness of screening and treatment.

RESULTS:

The cost-effectiveness analysis demonstrated that standardized screening (current practice) is the least cost-effective program. Individualized screening can improve outcomes at a reduced cost. We found it feasible – though computationally expensive – to incorporate a risk calculation engine into a decision model in Microsoft Excel. In an optimized screening program, the majority or patients would be invited to attend screening at least two years after a negative screening result.

CONCLUSIONS:

Individualized risk-based screening is likely to be cost-effective in the context of diabetic eye disease in the UK. It is expected that risk calculation engines will be developed in other disease areas in the future, and used to allocate screening and treatment at the individual level. It is important that researchers develop robust methods for combining risk calculation engines into decision analytic models and health technology assessment more broadly.

OP61 Net Value Of Treating Hepatitis C With Newly Available Direct-Acting Antivirals

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