A PILOT STUDY OF VALUE OF INFORMATION ANALYSIS TO SUPPORT RESEARCH RECOMMENDATIONS FOR THE NATIONAL INSTITUTION FOR CLINICAL EXCELLENCE

K Claxton\textsuperscript{a}, S Eggington\textsuperscript{b}, L Ginnelly\textsuperscript{a}, S Griffin\textsuperscript{a}, C McCabe\textsuperscript{b}, Z Philips\textsuperscript{c}, P Tappenden\textsuperscript{b}, and A Wailoo\textsuperscript{b}. \textsuperscript{a}University of York, \textsuperscript{b}University of Sheffield, \textsuperscript{c}University of Nottingham, UK.

Purpose: To demonstrate the benefits and feasibility of value of information analysis to support research recommendations made by the National Institute for Clinical Excellence (NICE).

Methods: A series of six case studies was selected from recent technology appraisals conducted by NICE. The case studies included: clopidogrel and dipyridamole in secondary prevention (CD); glycoprotein antagonists (GPAs); screening for age related macular degeneration (AMD); neuroaminidase inhibitors (NIs) for influenza; liquid based cytology (LBC); and beta interferons for multiple sclerosis (BIs). The case studies were broadly consistent with the recent NICE guidance on reference case analysis and included a probabilistic decision analytic model. In each case a re-analysis using value of information analysis was conducted.

Results: The reanalysis of each case study was completed within 4 weeks. The value of research differed substantially across the 6 technology appraisals (EVPI ranged from £2.8m to £865m). In some cases the analysis indicated that the original research recommendations should not be regarded as a priority. In other cases it indicated that additional research should be commissioned. The analysis also indicated which comparators should be included and which patient sub-groups should be enrolled in future trials. The case studies highlighted a number of general methodological issues including: consideration of all comparators, synthesis of direct and indirect evidence, and considering structural as well as parameter uncertainty.

Conclusions: Value of information analysis can be conducted in a timely way, which can inform the research recommendations made by NICE.