Appendix 2: The Quality of Health Economic Studies (QHES) instrument*			
Question		Points	Yes/No
1.	Was the study objective presented in a clear, specific and measurable manner?	7	
2.	Were the perspective of the analysis (e.g., societal, third-party payer) and reasons for its selection stated?	4	
3.	Were variable estimates used in the analysis from the best available source (i.e., randomized controlled trial — best; expert opinion — worst)?	8	
4.	If estimates came from a subgroup analysis, were the groups prespecified at the beginning of the study?	1	
5.	Was uncertainty handled by: (a) statistical analysis to address random events; (b) sensitivity analysis to cover a range of assumptions?	9	
6.	Was incremental analysis performed between alternatives for resources and costs?	6	
7.	Was the methodology for data abstraction (including the value of health states and other benefits) stated?	5	
8.	Did the analytic horizon allow time for all relevant and important outcomes? Were benefits and costs that went beyond 1 year discounted (3%-5%) and justification given for the discount rate?	7	
9.	Was the measurement of costs appropriate and the methodology for the estimation of quantities and unit costs clearly described?	8	
10.	Were the primary outcome measure(s) for the economic evaluation clearly stated, and were the major short-term, long-term and negative outcomes included?	6	
11.	Were the health outcome measures/scales valid and reliable? If previously tested valid and reliable measures were not available, was justification given for the measures/scales used?	7	
12.	Were the economic model (including structure), study methods and analysis, and the components of the numerator and denominator displayed in a clear, transparent manner?	8	
13.	Were the choice of economic model, main assumptions and limitations of the study stated and justified?	7	
14.	Did the author(s) explicitly discuss direction and magnitude of potential biases?	6	
15.	Were the conclusions/recommendations of the study justified and based on the study results?	8	
16.	Was there a statement disclosing the source of funding for the study?	3	
Total		100	

^{*}The QHES instrument contains 16 dichotomous (Yes/No) items, each weighted by its importance as determined by an expert panel of health economists. The quality score is calculated by subtracting points from 100 for questions answered with No. Therefore, the highest possible score is 100 and the lowest 0. Studies with a quality score exceeding 75 points are considered of high quality.¹

Reference

1. Spiegel BMR, Targownik LE, Kanwal F, et al. The quality of published health economic analyses in digestive diseases: a systematic review and quantitative appraisal. *Gastroenterology* 2004;127:403-11.