**Table 3: Quality Assessment of Economic Component of Included Studies** 

QHES item number*	Behner 1990	Li <i>et al.</i> 2011	Needleman <i>et</i> al. 2006	Newbold 2008	Rothberg <i>et al.</i> 2005	Shamliyan <i>et</i> <i>al.</i> 2009	Twigg <i>et al.</i> 2013	Van den Heede <i>et al.</i> 2010	Weiss <i>et al</i> . 2011
1	7	7	7	7	7	7	7	7	7
2	-	-	4	-	4	4	-	4	4
3	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-
5	-	-	-	-	9	-	-	-	-
6	-	-	-	6	6	-	-	6	-
7	5	5	5	5	5	5	5	5	5
8	-	7	-	-	7	7	7	7	7
9	-	8	8	8	8	8	8	8	8
10	-	6	6	6	6	6	6	6	6
11	-	7	7	7	7	7	7	7	7
12	-	8	8	8	8	8	8	8	8
13	-	-	7	7	7	7	7	7	-
14	-	-	6	-	6	6	6	6	-
15	8	8	8	8	8	8	8	8	8
16	-	3	3	-	-	3	3	3	3
Total score	20	59	69	62	88	76	72	82	63

*	QHES Items	Points
1	Was the study objective presented in a clear, specific and measurable manner?	7
2	Were the perspective of the analysis (societal, third-party payer, etc.) and reasons for its selection stated?	4
3	Were variable estimates used in the analysis from the best available source (ie RCT - 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 (1) statistical analysis to address random events, (2) 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
	Did the analytic horizon allow time for all relevant and important outcomes? Were benefits and costs that went beyond 1 year discounted (3% to 5%) and	
8	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
	Were the primary outcome measure(s) for the economic evaluation clearly stated, and were the major short-term, long-term and negative outcomes	
10	included?	6

	Were the health outcomes measures/scales valid and reliable? If previously tested valid and reliable measures were not available, was justification given	
11	for the measures/scales used?	7
	Were the economic model (including structure), study methods and analysis, and the components of the numerator and denominator displayed in a clear,	
12	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 bias?	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 POINTS	100

## QHES Instrument Reference

Chiou C, Hay JW, Wallace JF, Bloom BS, Neumann PJ, Sullivan SD, Yu H, Keeler EB, Henning JM & Ofman JJ (2003) Development and validation of a grading system for the quality of cost-effectiveness studies. *Medical Care* 41, 32-44. doi:10.1097/00005650-200301000-00007.