Appendix 5: Critical appraisal of the economic models using an adapted Phillips checklist

	s et al (2006)	Brailsford et al (2007)	Chalk et al (2012)	Dasbach et al (1991)	Davies et al (2002)	Javitt et al (1990)	Javitt et al (1994)	Rein et al (2011)	Tung et al (2008)	Vijan et al (2000)
	JCTURE	(2007)	(2012)	(1991)	(2002)	(1990)	(1994)	(2011)	(2006)	(2000)
1	Is there a clear statement of the decision problem?	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ
2	Is the objective of the model evaluation and model specified and consistent with the stated decision problem?	Υ	Υ	Υ	Υ	Y	Υ	Υ	Y	Y
3	Is the primary decision maker specified?	Υ	N	N	N	Υ	Υ	N	N	N
4	Is the perspective of the model stated clearly?	N	N	Υ	N	Υ	Υ	Υ	N	Υ
5	Are the model inputs consistent with the stated perspective?	UN	UN	Y*	UN	Υ	Υ	Υ	UN	Υ
6	Is the structure of the model consistent with a coherent theory of the health condition under evaluation?	Υ	Υ	Υ	Υ	Y	N	Y	Y	Y
7	Are the sources of the data used to develop the structure of the model specified?	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ
8	Are the structural assumptions reasonable given the overall objective, perspective and scope of the model?	Y*	N	Y*	Y*	Y*	Y*	Y*	Y*	Y*
9	Is there a clear definition of the options under evaluation?	Y*	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Y*
10	Have all feasible and practical options been evaluated?	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	UN
11	Is there justification for the exclusion of feasible options?	UN	UN	UN	UN	UN	N	UN	UN	UN
12	Is the chosen model type appropriate given the decision problem and specified casual relationships within the model?	Υ	Y	Y	Υ	Υ	Y	Υ	Y	Y
13	Is the time horizon of the model sufficient to reflect all important differences between the options?	Υ	Y	Υ	Υ	Y	Y	Y	Υ	Y*
14	Do the disease states (state transition model) or the pathways (decision tree model) reflect the underlying biological process of the disease in question and the impact of interventions?	UN	Y	N	Υ	Y	N	Υ	Y	Υ
15	Is the cycle length defined and justified in terms of the natural history of disease?	N	N	Υ	N	Υ	Υ	N	N	N
DATA	N. Company of the Com			-						_
16	Are the data identification methods transparent and appropriate given the objectives of the model?	Υ	UN	Υ	Υ	Y	UN	Υ	Y	Y
17	Where choices have been made between data sources are these justified appropriately?	UN	UN	UN	Υ	Υ	UN	Υ	Υ	Υ
18	Where expert opinion has been used are the methods described and justified?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Is the choice of baseline data described and justified?	UN	UN	UN	N	N	N	UN	UN	UN
20	Are transition probabilities calculated appropriately?	UN	Υ	Υ	Υ	UN	UN	Υ	Υ	UN
21	Has a half-cycle correction been applied to both costs and outcomes?	N	N	N	N	N	N	N	N	N
22	If not, has the omission been justified?	N	N	N	N	N	N	N	N	N

23	Have the methods and assumptions used to extrapolate short-term results to final outcomes been documented and justified?	Υ	Y	Y	Υ	Y	Υ	Y	Υ	Y
24	Are the costs incorporated into the model justified?	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ
25	Has the source for all costs been described?	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ
26	Have discount rates been described and justified given the target decision maker?	Υ	N	Υ	N	Υ	Υ	Υ	Υ	Υ
27	Are the utilities incorporated into the model appropriate?	N/A	N/A	N/A	N/A	N/A	N/A	Υ	Υ	Υ
28	Is the source of utility weights referenced?	N/A	N/A	N/A	N/A	N/A	N/A	Y*	Y*	Υ
29	If data have been incorporated as distributions, has the choice of distributions for each parameter been described and justified?	N/A	N/A	N/A	N	N/A	N/A	Υ	N	N
30	If data are incorporated as point estimates, are the ranges used for sensitivity analysis stated clearly and justified?	N	N	N	N	N	N	Υ	Y*	Υ
31	Has heterogeneity been dealt with by running the model separately for different sub-groups?	Υ	Υ	Υ	N	N	N	N	N	N
32	Have the results been compared with those of previous models and any differences in results explained?	Υ	Y	Υ	Y	Y	Υ	Υ	Y	Y

Key: Y = yes, No = no, UN = unclear, N/A = not applicable and * = partially completed