

## CHEERS Checklist

### Items to include when reporting economic evaluations of health interventions

The **ISPOR CHEERS Task Force Report**, *Consolidated Health Economic Evaluation Reporting Standards (CHEERS)—Explanation and Elaboration: A Report of the ISPOR Health Economic Evaluations Publication Guidelines Good Reporting Practices Task Force*, provides examples and further discussion of the 24-item CHEERS Checklist and the CHEERS Statement. It may be accessed via the *Value in Health* or via the ISPOR Health Economic Evaluation Publication Guidelines – CHEERS: Good Reporting Practices webpage: <http://www.ispor.org/TaskForces/EconomicPubGuidelines.asp>

Section/item	Item No	Recommendation	Reported on Page Number/Line Number	Reported on Section/Paragraph
<b>Title and abstract</b>				
Title	1	Identify the study as an economic evaluation or use more specific terms such as “cost-effectiveness analysis”, and describe the interventions compared.	Page 1, line 6-7	Title
Abstract	2	Provide a structured summary of objectives, perspective, setting, methods (including study design and inputs), results (including base case and uncertainty analyses), and conclusions.	Page 4-5, line 35-58	Abstract
<b>Introduction</b>				
Background and objectives	3	Provide an explicit statement of the broader context for the study. Present the study question and its relevance for health policy or practice decisions.	Page 8-9, line 97-124	Introduction, paragraph 1-2
<b>Methods</b>				
Target population and subgroups	4	Describe characteristics of the base case population and subgroups analysed, including why they were chosen.	Page 9, line 127-128	Methods, paragraph 1
Setting and location	5	State relevant aspects of the system(s) in which the decision(s) need(s) to be made.	Page 9, line 127-128	Methods, paragraph 1
Study perspective	6	Describe the perspective of the study and relate this to the costs being evaluated.	Page 10, line 158	Methods, paragraph 4
Comparators	7	Describe the interventions or strategies being compared and state why they were chosen.	Page 9, line 127-128	Methods, paragraph 1
Time horizon	8	State the time horizon(s) over which costs and consequences are being evaluated and say why appropriate.	Page 9, line 129	Methods, paragraph 1
Discount rate	9	Report the choice of discount rate(s) used for costs and outcomes and say why appropriate.	Page 14, line 216-217	Methods, paragraph 8
Choice of health outcomes	10	Describe what outcomes were used as the measure(s) of benefit in the evaluation and their relevance for the type of analysis performed.	Page 10, line 161-162	Methods, paragraph 4

Measurement of effectiveness	11a	<i>Single study-based estimates:</i> Describe fully the design features of the single effectiveness study and why the single study was a sufficient source of clinical effectiveness data.	N/A (synthesis-based estimates)	N/A (synthesis-based estimates)
	11b	<i>Synthesis-based estimates:</i> Describe fully the methods used for identification of included studies and synthesis of clinical effectiveness data.	Page 9, line 120-122	Introduction, paragraph 2
Measurement and valuation of preference based outcomes	12	If applicable, describe the population and methods used to elicit preferences for outcomes.	N/A (we did not conduct primary analysis to elicit preferences for outcomes)	N/A (we did not conduct primary analysis to elicit preferences for outcomes)
Estimating resources and costs	13a	<i>Single study-based economic evaluation:</i> Describe approaches used to estimate resource use associated with the alternative interventions. Describe primary or secondary research methods for valuing each resource item in terms of its unit cost. Describe any adjustments made to approximate to opportunity costs.	N/A (synthesis-based estimates)	N/A (synthesis-based estimates)
	13b	<i>Model-based economic evaluation:</i> Describe approaches and data sources used to estimate resource use associated with model health states. Describe primary or secondary research methods for valuing each resource item in terms of its unit cost. Describe any adjustments made to approximate to opportunity costs.	Page 14, line 210-216	Methods, paragraph 8
Currency, price date, and conversion	14	Report the dates of the estimated resource quantities and unit costs. Describe methods for adjusting estimated unit costs to the year of reported costs if necessary. Describe methods for converting costs into a common currency base and the exchange rate.	Page 10, line 159-162	Methods, paragraph 4
Choice of model	15	Describe and give reasons for the specific type of decision-analytical model used. Providing a figure to show model structure is strongly recommended.	Page 9, line 129-131. Figure 1	Methods, paragraph 5
Assumptions	16	Describe all structural or other assumptions underpinning the decision-analytical model.	Page 12, line 180-181	Methods, Box 1
Analytical methods	17	Describe all analytical methods supporting the evaluation. This could include methods for dealing with skewed, missing, or censored data; extrapolation methods; methods for pooling data; approaches to validate or make adjustments (such as half cycle corrections) to a model; and methods for handling population heterogeneity and uncertainty.	Page 13, line 189-192	Methods, paragraph 6
<b>Results</b>				
Study parameters	18	Report the values, ranges, references, and, if used, probability distributions for all parameters. Report reasons or sources for distributions used to represent uncertainty where appropriate. Providing a table to show the input values is strongly recommended.	Page 15-23, line 220-223	Methods, Table 1
Incremental costs and outcomes	19	For each intervention, report mean values for the main categories of estimated costs and outcomes of interest, as well as mean differences between the comparator groups. If applicable, report incremental cost-effectiveness ratios.	Page 27, line 288-290	Results, Table 2

Characterising uncertainty	20a	<i>Single study-based economic evaluation:</i> Describe the effects of sampling uncertainty for the estimated incremental cost and incremental effectiveness parameters, together with the impact of methodological assumptions (such as discount rate, study perspective).	N/A (synthesis-based estimates)	N/A (synthesis-based estimates)
	20b	<i>Model-based economic evaluation:</i> Describe the effects on the results of uncertainty for all input parameters, and uncertainty related to the structure of the model and assumptions.	Page 26, line 283-286; Page 28-29, line 312-324.	Results, paragraph 2 and 4
Characterising heterogeneity	21	If applicable, report differences in costs, outcomes, or cost- effectiveness that can be explained by variations between subgroups of patients with different baseline characteristics or other observed variability in effects that are not reducible by more information.	N/A (subgroup analysis was not conducted)	N/A (subgroup analysis was not conducted)
<b>Discussion</b>				
Study findings, limitations, generalisability, and current knowledge	22	Summarise key study findings and describe how they support the conclusions reached. Discuss limitations and the generalisability of the findings and how the findings fit with current knowledge.	Page 29, line 329-339. Page 31-32, line 375-397	Discussion, paragraph 1 Discussion, paragraph 8
<b>Other</b>				
Source of funding	23	Describe how the study was funded and the role of the funder in the identification, design, conduct, and reporting of the analysis. Describe other non-monetary sources of support.	Page 35-36, line 482-487	Declarations, paragraph 4
Conflicts of interest	24	Describe any potential for conflict of interest of study contributors in accordance with journal policy. In the absence of a journal policy, we recommend authors comply with International Committee of Medical Journal Editors recommendations.	Page 36, line 489-492	Declarations, paragraph 5

For consistency, the CHEERS Statement checklist format is based on the format of the CONSORT statement checklist

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\*As the checklist was provided upon initial submission, the page number/line number reported may be changed due to copyediting and may not be referable in the published version. In this case, the section/paragraph may be used as an alternative reference.