

Appendix A

PRISMA Checklist

Section/topic	#	Checklist item	Reported on page #
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	1
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	2
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	4
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	5
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	No review protocol
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	5
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	5
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	Appendix B
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	5
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	5-6 and Appendix C
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	5-6 and Appendix C
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	6 and Appendix E
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	5-6

Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	5-6
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	6 and Appendix D
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	5-6
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	6 and Figure 1
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	6 and Table 1
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	6 and Table 1
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	6-7 and Table 1
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	N/A
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	Appendix D
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	6-7 and Table 2
DISCUSSION			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	7-9
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	9-10
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	10
FUNDING			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	10

From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *PLoS Med* 6(7): e1000097. doi:10.1371/journal.pmed1000097

Appendix B

Full electronic search strategy for Medline

#	Searches
1	exp neoplasms/
2	(neoplas* or adenocarcinoma* or adenoma* or blastoma* or cancer* or carcinoma* or carcinosarcoma* or hepatoblastoma* or hepatoma* or leukaemia* or leukemia* or lymphoma* or malignan* or melanoma* or mesenchymoma* or mesothelioma* or metasta* or oncolog* or sarcoma or thymoma* or tumor* or tumour* or myeloproliferative or retinoblastoma* or neuroblastoma* or myelodysplastic or ependymoma* or astrocytoma* or glioma* or ganglioneuroblastoma* or nephroblastoma* or osteosarcoma* or chondrosarcoma* or rhabdomyosarcoma* or fibrosarcoma*).tw,kf.
3	1 or 2
4	(infan* or newborn* or new-born* or perinat* or neonat* or baby* or babies or toddler* or minors or minors* or boy or boys or boyfriend or boyhood or girl* or kid or kids or child* or schoolchild* or adolescen* or juvenil* or youth* or teen* or under*age* or pubescen* or pediatric* or paediatric* or peadiatric* or prematur* or preterm*).mp. or school*.tw.
5	3 and 4
6	("developing countries" or "developing country" or "low and middle income countries" or LMIC or "south america" or "latin America" or Afghanistan or Albania or Algeria or Angola or Antigua or Barbuda or Argentina or Armenia or Armenian or Aruba or Azerbaijan or Bahrain or Bangladesh or Barbados or Benin or Belize or Bhutan or Bolivia or Botswana or Brazil or "Burkina Faso" or "Burkina Fasso" or Burundi or Urundi or Cambodia or "Khmer Republic" or Kampuchea or Cameroon or Camerons or Cameron or Camerons or "Cape Verde" or "Central African Republic" or Chad or China or Colombia or Comoros or "Comoro Islands" or Comores or Mayotte or Congo or Zaire or "Costa Rica" or "Cote d'Ivoire" or "Ivory Coast" or Djibouti or "French Somaliland" or Dominica or "Dominican Republic" or "East Timor" or "East Timur" or "Timor Leste" or Ecuador or Egypt or "United Arab Republic" or "El Salvador" or Eritrea or Ethiopia or Fiji or Gabon or "Gabonese Republic" or Gambia or Gaza or Georgia or Ghana or Grenada or Guatemala or Guinea or Guiana or Guyana or Haiti or Honduras or India or Maldives or Indonesia or Kenya or Kiribati or "Lao PDR" or Laos or Lesotho or Basutoland or Liberia or Libya or Madagascar or "Malagasy Republic" or Sabah or Sarawak or Malawi or Nyasaland or Mali or Malta or "Marshall Islands" or Mauritania or Mauritius or "Agalega Islands" or Mexico or Micronesia or Moldova or Moldovia or Moldovian or Mongolia or Montenegro or Morocco or Ifni or Mozambique or Myanmar or Myanma or Burma or Namibia or Nepal or "Netherlands Antilles" or "New Caledonia" or Nicaragua or Niger or Nigeria or "Northern Mariana Islands" or Oman or Muscat or Pakistan or Palau or Palestine or Panama or Paraguay or Peru or Philippines or Philipines or Phillipines or Phillippines or Rwanda or Ruanda or "Saint Kitts" or "St Kitts" or Nevis or "Saint Lucia" or "St Lucia" or "Saint Vincent" or "St Vincent" or Grenadines or Samoa or "Samoan Islands" or "Navigator Island" or "Navigator Islands" or "Sao Tome" or "Saudi Arabia" or Senegal or Serbia or Montenegro or Seychelles or "Sierra Leone" or Slovenia or "Sri Lanka" or Ceylon or "Solomon Islands" or Somalia or Sudan or Suriname or Surinam or Swaziland or Tajikistan or Tadjhikistan or Tadjikistan or Tadjhik or Tanzania or Thailand or Togo or "Togolese Republic" or Tonga or Trinidad or Tobago or

	Tunisia or Turkey or Turkmenistan or Turkmen or Uganda or Ukraine or Uruguay or Vanuatu or "New Hebrides" or Venezuela or Vietnam or "Viet Nam" or Zambia or Zimbabwe or "Africa, Northern" or "Northern Africa" or "North Africa" or "Africa South of the Sahara" or "sub-Saharan Africa" or "subsaharan Africa" or "Africa, Central" or "central Africa" or "Africa, Eastern" or "Eastern Africa" or "east Africa" or "Africa, Southern" or "southern Africa" or "Africa, Western" or "western Africa" or "west africa" or "Caribbean Region" or Caribbean or "Central America" or "Panama Canal Zone" or "French Guiana" or Borneo or Brunei or "Mekong Valley" or "mekong delta Republic of Congo" or "Congo-Brazzaville" or "Democratic Republic of the Congo" or DRC or "Congo-Kishasha" or "Equatorial Guinea" or "South Sudan" or "South Africa" or "Guinea-Bissau").mp.
7	"costs and cost analysis"/ or "cost allocation"/ or cost-benefit analysis/ or "cost savings"/ or "cost of illness"/ or health care costs/ or direct service costs/ or drug costs/ or hospital costs/ or health expenditures/
8	Health Expenditures/
9	ECONOMICS/
10	quality-adjusted life years/
11	(costs or "cost analysis" or economics or "cost savings" or "cost of illness" or "health care costs" or "healthcare costs" or "health costs" or "direct service costs" or "drug costs" or "hospital costs" or "health expenditures" or "cost effectiveness" or "cost-effectiveness" or "cost of treatment" or "cost of disease" or "cost of care" or "health care cost" or "healthcare cost" or "economic evaluation" or "cost analyses" or "economic analysis" or "cost benefit analysis" or "cost allocation" or "cost of services" or "medicine costs" or "hospital cost" or "health expenditure" or "out-of-pocket" or expenses or expenditure or "household expense" or "household expenditure" or QALY or "quality-adjusted life year" or DALY or "disability-adjusted life year").tw,kf.
12	or/7-11
13	5 and 6 and 12

Appendix C

Data extraction form

Study ID:
Publication (Authors, Year):
Country:
1. Type of study:
2. Study objective:
3. Years of data collection:
4. Study location:
5. Number of participants:
6. Age range:
7. Diagnosis:
8. Subgroup analysis:
9. Intervention or treatment evaluated:
10. Comparator:
11. Study perspective:
12. Data sources (Y/N) a. Salary figures: b. Patient records: c. Hospital departments: d. Government databases: e. Other sources:
13. Types of outcomes (Y/N) a. Total annual costs: b. Cost per patient newly diagnosed with cancer per year: c. Cost per newly diagnosed patient per treatment course: d. Cost per day: e. Cost per hospital stay: f. Cost of a specific medical intervention per patient: g. Cost of a specific surgical intervention per patient: h. Cost per life saved: i. Cost per DALY averted: j. Cost per QALY gained: k. Incremental cost-effectiveness ratio: l. Other:
14. Time horizon (Length of time over which costs and consequences are being evaluated):
15. Discount rate:

16. Currency, date, and conversion:
17. Inputs into economic evaluation analysis (Y/N) a. Medical personnel: b. Nonmedical personnel: c. Tumour-directed medications: d. Supportive medications: e. Surgery: f. Radiotherapy: g. Pharmacy: h. Imaging: i. Pathology and laboratory: j. Blood services: k. Food: l. Travel and transportation: m. Patient accommodations: n. Administration and utilities: o. Other:
18. Outcomes (Cost outcomes converted to 2018 USD) a. Clinical outcomes: b. Pure costs: c. Cost-effectiveness: d. Cost-utility:
19. Sensitivity analysis:
20. Notes:

Appendix D

Inputs into cost analysis

Study	Medical personnel	Nonmedical personnel	Tumour-directed medications	Supportive medications	Surgery	Radiotherapy	Pharmacy	Imaging	Pathology and laboratory	Blood services	Food	Travel and transportation	Patient accommodations	Administration and utilities	Other
Multiple childhood cancers															
Bhakta et al. 2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Model calculates per-incident fixed costs and does not include variable costs such as inpatient ward space, healthcare worker training, supply chains and radiology/laboratory equipment, etc.
Fuentes-Alabi et al. 2018	X	X	X	X	X	X	X	X	X	X	X		X	X	
Neal et al. 2018	X	X	X	X	X	X	X	X	X	X		X	X	X	
Renner et al. 2018	X	X	X	X	X	X	X	X	X	X	X		X	X	
Leukemias															
Carlos Jaime-Perez et al. 2017		X	X	X			X	X	X				X		
Gao et al. 2013			X												
Garcia et al. 2015	X		X	X											
Ghatak et al. 2016	X	X	X	X			X	X	X		X	X	X		Parental loss of employment and leave from employer with/without pay.
Gu et al. 2008			X												
Hayati et al. 2018	X	X	X					X	X	X			X		
Islam et al. 2015	X		X	X			X	X	X	X	X	X	X		
Jasso-Gutierrez et al. 2012			X												
Jayaraman et al. 2017			X												

Liu et al. 2009	X		X	X		X	X	X	X	X					Chinese alternative medicines.
Luo et al. 2008	X	X	X	X			X	X	X	X			X		
Luo et al. 2009			X												
Rocha-Garcia et al. 2003			X	X							X	X	X		Personal hygiene items, childcare for siblings, lost wages.
Wilms tumour															
Israels et al. 2018			X												
Kanyamuhunga et al. 2015			X	X	X		X	X	X	X		X	X		
Paintsil et al. 2015			X		X			X	X		X	X	X		
Burkitt lymphoma															
Denburg et al. 2019	X	X	X	X	X		X	X	X	X	X	X	X	X	
Hesseling et al. 2003			X	X											
Meremikwu et al. 2005			X	X				X	X	X			X		
Traore et al. 2011			X												
Hodgkin lymphoma															
Stefan et al. 2009			X					X	X						
Retinoblastoma															
Ji et al. 2012			X	X	X	X	X	X	X	X		X	X		
Waddell et al. 2015			X		X						X	X			
Yao et al. 2018			X												
Other															
Agarwal et al. 2007					X										
Hendricks et al. 2011			X						X	X			X		

Appendix E

The CHEERS Checklist

Section/item	Item no.	Recommendation	Reported on page no./line no.
<i>Title and abstract</i>			
Title	1	Identify the study as an economic evaluation, or use more specific terms such as "cost-effectiveness" and describe the interventions compared (1 point) .	
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 (1 point) .	
<i>Introduction</i>			
Background and objectives	3	Provide an explicit statement of the broader context for the study (0.5 point) . Present the study question and its relevance for health policy or practice decisions (0.5 point) .	
<i>Methods</i>			
Target population and subgroups	4	Describe characteristics of the base-case population and subgroups analyzed including why they were chosen (1 point) .	
Setting and location	5	State relevant aspects of the system(s) in which the decision(s) need(s) to be made (1 point) .	
Study perspective	6	Describe the perspective of the study and relate this to the costs being evaluated (1 point) .	
Comparators	7	Describe the interventions or strategies being compared and state why they were chosen (1 point) .	
Time horizon	8	State the time horizon(s) over which costs and consequences are being evaluated and say why appropriate (1 point) .	
Discount rate	9	Report the choice of discount rate(s) used for costs and outcomes and say why appropriate (1 point) .	
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 (1 point if reported or if not applicable. 0 points if applicable but not reported) .	
Measurement of effectiveness	11a	Single study-based estimates: Describe fully the design features of the single effectiveness study and why the	

		single study was a sufficient source of clinical effectiveness data (1 point) .	
	11b	Synthesis-based estimates: Describe fully the methods used for the identification of included studies and synthesis of clinical effectiveness data (1 point) .	
Measurement and valuation of preference-based outcomes	12	If applicable, describe the population and methods used to elicit preferences for outcomes (1 point if reported or if not applicable. 0 points if applicable but not reported) .	
Estimating resources and costs	13a	Single study-based economic evaluation: 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 opportunity costs (1 point) .	
	13b	Model-based economic evaluation: 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 opportunity costs (1 point) .	
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 (0.5 point) . Describe methods for converting costs into a common currency base and the exchange rate (0.5 point) .	
Choice of model	15	Describe and give reasons for the specific type of decision-analytic model used (0.5 point) . Providing a figure to show model structure is strongly recommended (0.5 point) .	
Assumptions	16	Describe all structural or other assumptions underpinning the decision-analytic model (1 point) .	
Analytic methods	17	Describe all analytic 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 (e.g., half-cycle corrections) to a model; and methods for handling population heterogeneity and uncertainty (1 point) .	
<i>Results</i>			
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 (1 point) .	
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 (1 point) .	
Characterizing uncertainty	20a	Single study–based economic evaluation: Describe the effects of sampling uncertainty for estimated incremental cost, incremental effectiveness, and incremental cost-effectiveness, together with the impact of methodological assumptions (such as discount rate, study perspective) (1 point) .	
	20b	Model-based economic evaluation: Describe the effects on the results of uncertainty for all input parameters, and uncertainty related to the structure of the model and assumptions (1 point) .	
Characterizing 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 (1 point if reported or if not applicable. 0 points if applicable but not reported) .	
<i>Discussion</i>			
Study findings, limitations, generalizability, and current knowledge	22	Summarize key study findings and describe how they support the conclusions reached. Discuss limitations and the generalizability of the findings and how the findings fit with current knowledge (1 point) .	
<i>Other</i>			
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 nonmonetary sources of support (1 point) .	
Conflicts of interest	24	Describe any potential for conflict of interest among 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 (1 point) .	