

Improving the quality of abstract reporting for economic analyses in oncology

Maria Ho MD FRCPC

Medical Oncologist
Division of Medical Oncology
Cross Cancer Institute
Dept. of Medicine, University of Alberta

Background

- Economic analyses convey key information about the relative costs and benefits of new interventions.
- Important in the field of oncology given the rise in the cost of many cancer treatments.

Background

- Guidelines for abstract reporting of randomized controlled studies and phase I trials are available.^{1 2}
- Lack of guidelines for conference abstract reporting of economic analyses.

1 Moher D, Cook DJ, Eastwood S, Olkin I, Rennie D, Stroup DF. Improving the quality of reports of meta-analyses of randomised controlled trials: the QUOROM statement. *Lancet* 1999;354:1896–900.

2 Strevel EL, Chau NG, Pond GR, Murgu AJ, Ivy PS, Siu LL. Improving the quality of abstract reporting for phase I cancer trials. *Clin Cancer Res* 2008;14:1782–7.

Aims

- To identify items considered to be essential for abstract reporting of economic analyses.
- To evaluate the quality of abstracts submitted to ASCO, ASH and ISPOR meetings.
- To propose guidelines for future reporting.

Methods

- All abstracts from ASCO ('97–'09), ASH ('04–'09) and ISPOR ('97–'09) were reviewed and assigned a quality score.
- Health economic experts were surveyed and asked to rate each of 24 possible elements on a 5-point Likert scale.

Elements

- Limitations of analysis
- Base year of cost adjustment
- Whether discounting was done
- Currency (e.g. CDN/USD)
- Location and setting of study
- Source of funding
- Concluding statement and interpretation of cost effectiveness
- A prior definition of budget threshold
- Derivation of cost-effectiveness acceptability curve
- Type of cost analysis
- Background and rationale of the cost problem

Elements

- Type of sensitivity analysis
- Whether sensitivity analysis was done
- CEA/CUA ratios
- Use of incremental CEAs
- Denominator measured (e.g. utility/QALY/DALY)
- Derivation of cost data
- Costs included
- Perspective
- Time horizon
- Target population
- Comparator description and selection
- Intervention description

Methods

- A scoring system for abstract quality (0=poor and 100=excellent) was devised based on elements with an average expert rating ≥ 3.5 .
- Multivariate analysis was performed to assess variables that predict the overall quality of abstracts.

Results I Survey Results and Review of Abstracts

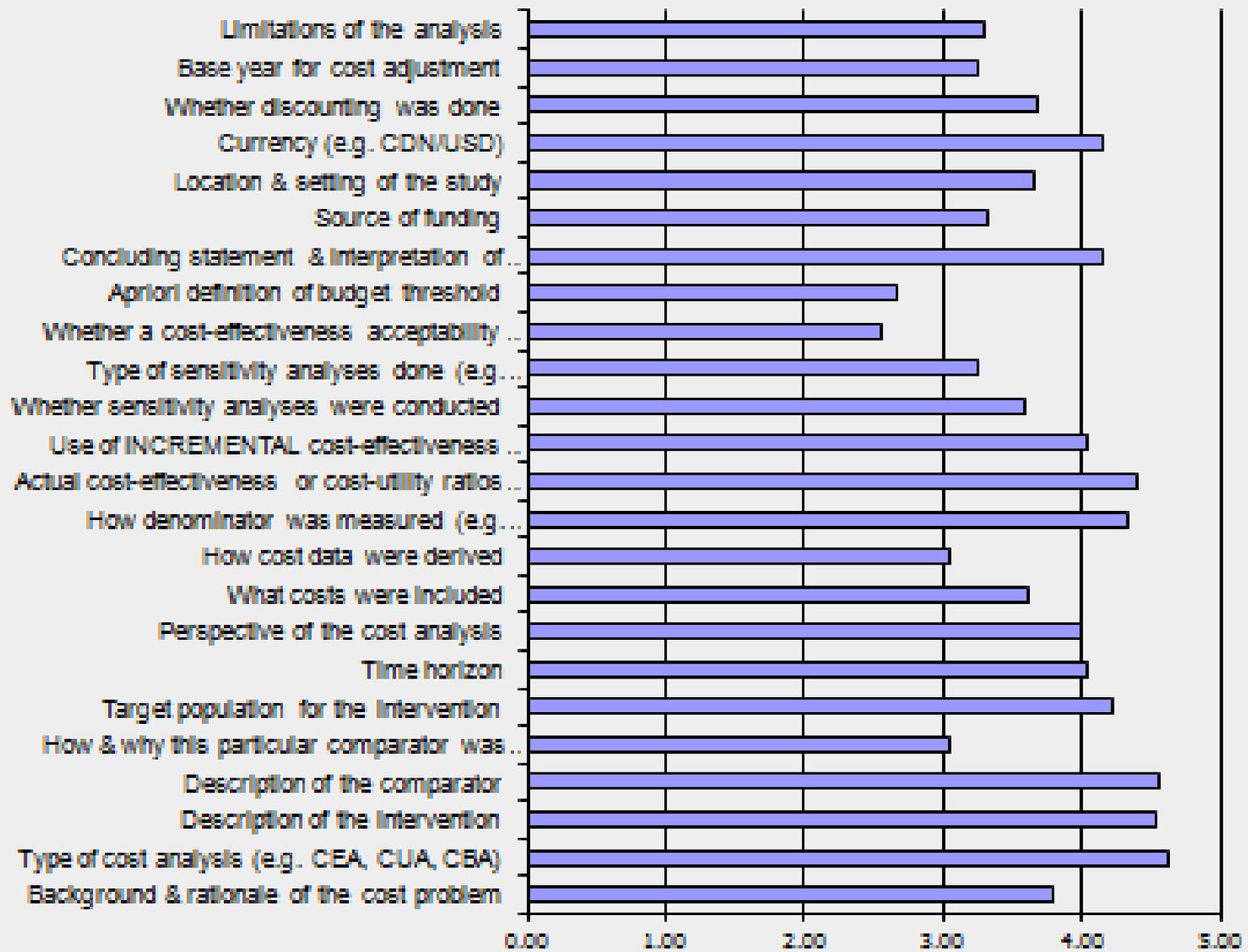
- Response Rate of Economic Experts : 50/99 (51%)
- Characteristics of Respondents:
 - Average Age: 53 years
 - Male: 78%
 - Female: 22%

 - US: 54%, Europe: 28%, Canada: 18%

 - Physician 12%
 - Economist 50%
 - Policymaker 6%
 - Others 32%

Results II Survey Results and Review of Abstracts

- Total No. of Abstracts: 216
 - ASCO: 53%
 - ASH: 14%
 - ISPOR: 33%
- Median Quality Score of Abstracts: 75 (48-93)
- Predictors of Higher Abstract Quality Score:
 - Year $p=0.001$ (recent years demonstrating better quality score)
 - Tumor site $p=0.005$



Results III Guidelines for abstract reporting of economic analyses

Items that are absolutely essential
(mean expert rating: ≥ 4.50)

Type of economic analyses (e.g. cost utility, cost-benefit)

Description of intervention

Description of comparator

Results III Guidelines for abstract reporting of economic analyses

Items that should be reported (mean expert rating: 4.00 – 4.49)

Target population for intervention

Time horizon

Perspective

Method in which denominator (LYG, QALY) was derived

Cost-effectiveness ratio

Conclusion about cost-effectiveness intervention

Currency

Results III Guidelines for abstract reporting of economic analyses

Items that may be reported if space permits (mean expert rating: 3.50 to 3.99)

Background of cost problem

Costs that were included

Sensitivity analysis

Setting of study

Discounting

Discussion

- Quality of reporting of economic analyses abstracts is suboptimal.
 - perspective was reported in only 61% of abstracts.
 - time horizon was described in only 47% of abstracts.
- Reporting of future abstracts can be improved through the use of explicit guidelines derived from our survey of experts.

Limitations

- Quality of abstract reporting may not be correlated with the quality of study methodology or quality of final publication.
- List of items disseminated to field experts for assessment of pertinence in abstract inclusion was generated by authors.

Acknowledgements

Thank you to

Dr. Winson Cheung (BCCA - Vancouver)

Dr. Kelvin Chan (Sunnybrook)

Dr. Stuart Peacock (BCCRC)

Thank You