The use of multi criteria decision analysis for coverage decisions

options and limitations

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Contents

• What is MCDA
• Is it useful for coverage decisions?
Many criteria are important, recognised since long..
.. and decision makers agree on core criteria

Top ranking:
- Clinical effectiveness
- Safety
- Quality of evidence
- Disease severity
- Budgetary impact

Source: Tanios et al. In t J Techn Ass Health Care 2013
Decision-maker

- Intervention complexity
- Socio-economic status
- Severity of disease
- High risk group
- Reduced transmission
- Age
- Budget impact
- Vulnerable populations

Effectiveness analysis
What is MCDA?

- An aid to decision making which makes the impact of multiple criteria on decisions more explicit and the relative importance attached to them

- Aims to improve
  - Quality of decisions by addressing all relevant criteria
  - Transparency of decisions by being explicit
  - Consistency of decisions by using same principles over time
How to perform MCDA?

- Establish panel, define criteria, assess interventions
- Interpret performance matrix

<table>
<thead>
<tr>
<th>Interventions</th>
<th>Health gain</th>
<th>Severity of disease</th>
<th>Vulnerable population</th>
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The use of MCDA

• ISPOR Task Force 2016

• Many applications
  • Local level – reallocation decisions (PBMA)
  • National level – broad disease control priorities
  • Approaches and tools: Evidem, 1000Minds

• Can it be used for specific coverage decisions?
  • First experiences (Thailand: Youngkong et al. Value in Health 2012)
  • Now look at western countries
Countries mention use of various criteria.

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<th>Criteria</th>
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Source: Adapted from Golan et al. Health Policy 2011
.. but these are often vaguely defined

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Source: Adapted from Golan et al. Health Policy 2011
Can MCDA guide these decisions?

- Current HTA processes
  - strong focus on safety, effectiveness and CEA
  - other criteria vague, as ‘afterthought’

- MCDA as mathematical tool can only help a bit

- Priority setting is complex and value-laden process
  - Criteria relate to stakeholder values, these may disagree on their values
  - So, essential to involve stakeholders in HTA process
  - Deliberation is key to learn and develop coherent argument

- MCDA is only useful with stakeholder inclusion and strong deliberative component
The Netherlands is using elements of MCDA

- Algorithm based on CE and severity of disease
  - Threshold varies between €10,000 - €80,000 per QALY gained, depending on ‘severity’
  - Consideration of other criteria by systematic deliberation
    - on basis of checklist of criteria
    - by providing argumentation per criteria on importance and which criteria have overriding importance
- But stakeholder involvement largely lacking
Summary

• MCDA holds potential to guide coverage decisions
• MCDA not a mathematical solution for political problem
• Deliberation is always key
• Need for evidence-informed deliberative processes
  • Integrating MCDA and A4R (Bærøe and Baltussen 2014)