ARE LOCAL QUALITY OF LIFE DATA NEEDED TO GUIDE REIMBURSEMENT DECISIONS IN LATIN AMERICA?

Andrew Lloyd, Federico Augustovski, Vijayveer Bonthapally

Presenters

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Oxford Outcomes an ICON PLC Company

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Utilities, QALYs and decision making

- Treatments can
  - extend life
  - improve or maintain quality of life,
- QALY reflects length of life and HRQL
- Cost effectiveness can assessed in terms of incremental cost per QALY
- The preference weights used to estimate QALYs should reflect values of local population
- Often though values from UK or US have to be used
  - How much of a concern is this for decision makers

Aims

- Federico
  - Discuss work he has conducted here in Argentina with colleagues
- Vijay
  - Present a case study from Hodgkin’s lymphoma and sALCL
- Andrew
  - Will present some issues for discussion
ARE LOCAL QUALITY OF LIFE DATA NEEDED TO GUIDE REIMBURSEMENT DECISIONS IN LATIN AMERICA?

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Editor en Jefe, (LAC) Value in Health Regional Issues

Requerimientos actuales en países de LA

• Países con guías
  – Brasil
  – Chile
  – Cuba
  – Colombia
  – Mexico

• Regiones
  – Mercosur
  – Comunidad Andina

- Todos aceptan el uso de estudios de costo-utilidad (no lo requieren)
- En general promueven uso de ponderaciones locales (de ser posible)
Cómo Incorporar Datos Locales de Calidad de Vida

- Estudios primarios de Preferencias (TTO, SG)
  - En pacientes
  - En población general (viñetas)
- Estudios primarios (o análisis secundario de estudios) que incorporen instrumento “traducible” a utilidad/preferencia poblacional
  - Previo estudio local de ponderaciones o ponderaciones foráneas
  - En pacientes o En población general (viñetas)
- Basarse en estudios de la literatura internacional/regional
- Usar Disability Weights (WHO) como proxy

Uruguay recruiting (EQ-5D-5L)
Colombia planned (EQ-5D-5L)
Barriers to Generalizability of Health Economic Evaluations in Latin America and the Caribbean Region

Federico Augustovski, Cynthia Iglesias, Andrea Manca, Michael Drummond, Adolfo Rubinstein and Sebastian Garcia Marti

• From 521 studies retrieved in the search, 72 were full HEES

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Number of studies</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEE Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost-effectiveness analysis</td>
<td>33</td>
<td>46</td>
</tr>
<tr>
<td>Cost-consequence analysis</td>
<td>23</td>
<td>32</td>
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<tr>
<td><strong>Cost-utility analysis</strong></td>
<td><strong>7</strong></td>
<td><strong>10</strong></td>
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<tr>
<td>Cost-benefit analysis</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Cost-minimization analysis</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>

Augustovski F et al. Pharmacoeconomics 2009
Medidas de Beneficio

• Utilities were taken from the international literature about 50% of the time.
• One study directly elicited preferences through the time trade-off method
• Others mostly used ‘off the shelf’ weights derived from the Global Burden of Disease study or EQ-5D published weights from developed countries.
• This has probably changing rapidly

Augustovski F et al. Pharmacoeconomics 2009
Puede haber diferencias significativas

Fig. 1 – Box plots representing EQ-5D translated coefficients for health states included in the human papillomavirus vaccination model. Central horizontal line of each box: median; upper hinge: 75th percentile; lower hinge: 25th percentile; whiskers: upper (third quartile plus 1.5* interquartile range) and lower (first quartile minus 1.5* interquartile range) adjacent values; outside data: outliers.
Conclusiones

• Las medidas basadas en preferencias son cada vez más usadas en la región
• No hay fuertes recomendaciones nacionales o regionales
• Hay varios países que llevaron a cabo estudios de preferencias sociales
• Estudios de costo-utilidad con datos locales serán cada vez más frecuentes
• No da lo mismo usar cualquier fuente para estimar los QALYS!!
• Fuerte análisis de sensibilidad si datos no locales
Hodgkin’s lymphoma (HL) represents a spectrum of histopathologic and clinical presentations and advances in HL treatment have resulted in significant improvements in long-term survival of patients (Brenner H, et al. Blood 2008).

Symptoms include painless swelling of lymph nodes, and sometimes B symptoms (high temperatures, sweating and weight loss).

Most patients will achieve a complete response (CR) with front-line treatment, but there remains a small group who do not enter remission following initial treatment, or who relapse very soon after treatment (David KA, et al. Curr Treat Options Oncol 2007).

Systemic Anaplastic Large Cell Lymphoma (sALCL) is a type of non-Hodgkin lymphoma. Although rarer, it can present in a very similar way to HL (Macmillan, 2010).

Aim: Study to elicit utility values for R/R HL and sALCL (Swinburn et al, EHA 2012; Shingler et al, ISPOR; 2013)

Health states included:
- Complete response to treatment
- Partial response to treatment
- Stable disease
- Stable disease with B-Symptoms
- Complete response with acute graft versus host disease
- Complete response with chronic graft versus host disease
- Complete response with grade I/II peripheral sensory neuropathy
- Complete response with grade III peripheral sensory neuropathy
- Progressive disease
Case study: Methods

- Study undertaken in 7 countries: Brazil (n=101) and Mexico (n=100); UK (n=100), Australia (n=75), Taiwan (n=75), Thailand (n=75), South Korea (n=75).

- Time Trade-Off (TTO) methodology was used to elicit utility values from members of the public in each country.

- Vignettes developed using thorough methodology:
  - Literature review
  - Patient interviews (n=6)
  - Clinician/KOL interviews (n=2 Brazil; n=2 Mexico; n=5 UK, n=1 South Korea, n=1 Taiwan)
  - Cognitive debriefing

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Case Study: Mean utility values

(Swibburn et al, EHA 2012; Shingler et al, ISPOR 2013)

<table>
<thead>
<tr>
<th>Health state</th>
<th>Brazil</th>
<th>Mexico</th>
<th>UK</th>
<th>Overall mean</th>
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<tbody>
<tr>
<td>Stable disease</td>
<td>0.639</td>
<td>0.592</td>
<td>0.710</td>
<td>0.647</td>
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<tr>
<td>Partial Response</td>
<td>0.717</td>
<td>0.633</td>
<td>0.794</td>
<td>0.715</td>
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<tr>
<td>Complete Response</td>
<td>0.764</td>
<td>0.728</td>
<td>0.906</td>
<td>0.799</td>
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<tr>
<td>Stable with B-symptoms</td>
<td>0.586</td>
<td>0.588</td>
<td>0.586</td>
<td>0.587</td>
</tr>
<tr>
<td>Complete with acute graft versus host disease</td>
<td>0.449</td>
<td>0.467</td>
<td>0.394</td>
<td>0.437</td>
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<tr>
<td>Complete with chronic graft versus host disease</td>
<td>0.480</td>
<td>0.494</td>
<td>0.516</td>
<td>0.497</td>
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<tr>
<td>Complete with peripheral sensory neuropathy grade III</td>
<td>0.661</td>
<td>0.633</td>
<td>0.802</td>
<td>0.699</td>
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<tr>
<td>Complete with sensory neuropathy grade III</td>
<td>0.492</td>
<td>0.494</td>
<td>0.575</td>
<td>0.520</td>
</tr>
<tr>
<td>Progressive disease</td>
<td>0.341</td>
<td>0.349</td>
<td>0.382</td>
<td>0.357</td>
</tr>
</tbody>
</table>
Case Study: Results

• Latin American countries valued states with very similar mean utility values.

• Complete response was valued as the least burdensome state; progressive disease was found to have the most severe impact on HRQL.

• Acute graft versus host disease had the lowest mean utility value therefore the most burden of adverse events included.

Case Study: Discussion points

• Which utility value should be used for countries not included in the study?

  - Overall mean utility value?
  - Individual value for a ‘similar’ county?
  - The highest/lowest value?
References

- Paul Swinburn, Sarah Shingler, Yan Liu, Hui Huang, Sarah Acaster; Health state utilities for relapsed/refractory Hodgkin lymphoma (HL) and systemic anaplastic large-cell lymphoma (sALCL); 17th Congress of the European Hematology Association (EHA) 2012
- Paul Swinburn, Sarah Shingler, Won-Seog Kim, Tsu-Yi Chao, Hui Huang, Sarah Acaster; Health state utilities for relapsed/refractory Hodgkin lymphoma (HL) and systemic anaplastic large-cell lymphoma (sALCL); Asian Pacific country data; ISPOR 2012
- Sarah Shingler, Paul Swinburn, Andrew Lloyd, Vijayveer Bonthapally; Estimating health state utilities for patients with relapsed/refractory (r/r) hodgkin lymphoma (HL) and systemic anaplastic large-cell lymphoma (sALCL) in mexico and brazil; abstract accepted; ISPOR 16th Annual European Congress; 2013

Use of utilities to guide decision making in Latin America

Andrew Lloyd,
Vice President, Practice Lead, PRO
Oxford Outcomes
Starting Point: Evaluation

Choice: Treatment A or B?

Costs → Treatment A → Outcomes

Δ Cost

Δ Outcome

Costs → Treatment B → Outcomes

Does the extra benefits (outcomes) justify the extra cost?

Quality of life

- Many ways to assess quality of life using standardised survey instruments
- For estimating QALYs the survey must reflect the value (or utility) of a health state
- Utility can be captured by understanding what people may be willing to give up or sacrifice
  - Length of life (time trade off)
  - Risk of death (standard gamble)
Standardised measures

- Simple quality of life measures can capture utilities
  - EQ-5D, SF-6D, HUI and others
  - All include preference weights
  - Broadly meet requirements for estimating QALYs

Decision making

- Health care decisions should reflect what the public values
  - Helps to meet public priorities
  - Allows public input into decision making
  - General public often fund health care through taxation or insurance

- Therefore utility weights should come from general public
  - Representative
  - Geographical spread
  - Cultural, ethnic mix
  - Age, gender, health profile
  - Local to decision context
Latin American context

• EQ-5D has many value sets from around the world (Argentina, some work in Chile, Columbia)
• SF-6D has Brazilian preference weights
• But in economic evaluation what do you do when
  – No QoL data at all
  – No EQ-5D or SF-6D data that local weights can be applied to
  – No local preference weights (countries with no value sets)

Hodgkins lymphoma study

• HL study demonstrates large international differences in utilities for same health states
• Choosing different values will greatly affect cost effectiveness
Questions

• If you have no utilities available
  – How willing are you to accept utilities from other Latin American countries?
  – What factors influence this?
  – How serious is this issue?
  – Academic only or a research/ policy priority
  – Are you happy to simply use EU/ US weights?
  – If no data are available for your country – whose weights would you use? And why?

Questions

– Do you agree that extending coverage for EQ-5D (or other measures) to all LatAm countries is priority?
– Is this issue as important as a lack of local cost data or local treatment patterns?
– What do you see as research priorities?