Adapting Pharmacoeconomic Data or Analyses from Overseas for Decision-Making in Middle Income Countries
Taiwan Experience

Jasmine R. F. Pwu
September 5th, 2016

New Drug Listing Decision

- New drugs listing decision is made according to the following factors:
  - Relative effectiveness/Safety
  - Budget impact
  - Cost-effectiveness
    - It is not mandatory for manufacturers to submit CEA evidence
  - Ethical/Law/Social/Political Impact
Incentive for Local CEA Evidence

To encourage the manufacturers to provide local CEA evidence in the dossier

An incentive of a maximum 10% mark-up for conducting local CEA for category 2 new drugs has been announced since 2010

Mark-up is recommended by Expert Committee, and then approved by PBRS Joint Committee

Assessment for Local PE Study

NHIA

How to assess the strength of evidence of local CEA analysis?

A tool for local CEA Quality Assessment was proposed by NIHTA in Taiwan
  • to ensure the consistency
  • to improve the transparency
What is a good PE study?

- What is a good PE study *for listing decision*?
  - Providing *valid* economic evaluation
  - Reflecting *local* scenario
  - Regardless of the ICER value

What is a good PE Quality Assessment Tool?

- What is a good Quality Assessment Tool *for listing & mark-up decision*?
  - Discriminability
  - Consistency
  - Transparency
  - Grading?
  - > A checklist was proposed
Four review dimensions

- PIC
- CEA design
- Parameters
- Overall quality

If the analysis relevant to the application?

- (Yes, Acceptable, No)
  - 1.1 Population
  - 1.2 Intervention
  - 1.3 Comparator
The appropriateness of the study design

- (Yes, No)
  - 2.1 Method
  - 2.2 Perspective
  - 2.3 Analytic horizon
  - 2.4 Discounting
  - 2.5 Effectiveness indicators
  - 2.6 Economic indicators
  - 2.7 Sensitivity analysis
  - 2.8 Sponsorship disclosure

Quality of Parameters and the level of local adaptation

- (Good, Acceptable, Flawed)
  - 3.1 Comparative effectiveness
  - 3.2 Safety/AE
  - 3.3 Baseline event rate
  - 3.4 Epidemiology
  - 3.5 Medication costs
  - 3.6 Other medical costs
  - 3.7 Other non-medical costs
  - 3.8 Utility weight
Overall Quality

- Good, Acceptable, Flawed
  - 4.1 Study model and the clinical pathway
  - 4.2 Assumptions
  - 4.3 Include all important costs?
  - 4.4 Include all important health outcomes?
  - 4.5 Sensitivity analysis
  - 4.6 Value of parameters
  - 4.7 Calculation
  - 4.8 Completeness of results
  - 4.9 Reporting

The Impact of Local PE Incentive

- Incentive was announced
- 0 local PE study/83 submitted
- 6 local PE study/67 submitted
- 2008 2009 2010 2011 2012 2013 2014
Comparing to the survey results

Ways in which the results from studies conducted in other jurisdictions are used?
(N=number of organizations)
### Categories of foreign data used when conducting local studies

(N=number of responses)

<table>
<thead>
<tr>
<th>Categories of Data</th>
<th>Often</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data on epidemiology of disease or baseline risk</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Data of relative treatment effect</td>
<td>6</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Data on resource use</td>
<td>3</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Unit costs/prices</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Health state preference values/utilities</td>
<td>2</td>
<td>6</td>
<td>0</td>
</tr>
</tbody>
</table>

### OBSTACLES TO TRANFERRING ECONOMIC EVALUATIONS FROM OTHER JURISDICTIONS

<table>
<thead>
<tr>
<th>Obstacle</th>
<th>Number of times mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other practice patterns, or the availability of facilities, are often different in my jurisdiction</td>
<td>10</td>
</tr>
<tr>
<td>The current standard of care/ relevant comparator is often different in my jurisdiction</td>
<td>9</td>
</tr>
<tr>
<td>Studies are often conducted in countries with a higher GDP, so the results do not apply in my jurisdiction</td>
<td>8</td>
</tr>
<tr>
<td>Studies are often badly reported, or not enough details are given</td>
<td>8</td>
</tr>
<tr>
<td>It is often difficult or impossible to obtain an electronic copy of the model</td>
<td>7</td>
</tr>
<tr>
<td>The patient population is often different in my jurisdiction</td>
<td>6</td>
</tr>
<tr>
<td>Often, it is not possible to find local data to re-populate the model</td>
<td>6</td>
</tr>
<tr>
<td>Studies often have methodological deficiencies</td>
<td>5</td>
</tr>
<tr>
<td>Decision-makers in my jurisdiction much prefer a locally designed study</td>
<td>5</td>
</tr>
<tr>
<td>Studies often use methods that are too advanced for decision-makers in my jurisdiction</td>
<td>4</td>
</tr>
<tr>
<td>Other obstacles (please list and rank)</td>
<td>3</td>
</tr>
<tr>
<td>Lack of local technical capability</td>
<td>1</td>
</tr>
<tr>
<td>Decision-makers in my jurisdiction much prefer non-data driven arguments</td>
<td>1</td>
</tr>
<tr>
<td>Different resources &amp; costs used in other jurisdictions</td>
<td>1</td>
</tr>
</tbody>
</table>
Comparisons…

• Are there any examples in your country of using data or analyses from overseas in local decisions?
  – No (because the pricing rule…)

• What do you see as the major challenges and how are they resolved in your country?
  – Lack of capacity in the beginning
  – Change of decision-making system
  – Need to reform!

Thank you!

jasminepwu@ntu.edu.tw