Module 2:
Methods for the Development and Adjustment of HBP

Decision rules in an end-to-end HTA system: New Zealand

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PHARMAC - a brief history

• 1993 - PHARMAC established, annual pharmaceutical spend $445M
• 1997 - First tender for sole supply in the community
• 2002 - Management of all cancer treatments
• 2003 - Annual spend $510M
  • First decade - $2 billion cumulative savings, 6% pa prescription growth
• 2012 - Management of immunisation vaccines
• 2013 - Annual spend $784M
  • Second decade - $4 billion cumulative savings, 6% pa prescription growth
• 2016 - $800 nominal budget, saved and re-invested $52.7 million, 44 million Rxs

Mission: “To secure for eligible people in need of pharmaceuticals, the best health outcomes that can reasonably be achieved, and from within the amount of funding provided.”

New Zealand Health and Disability Act 2000
PHARMAC’s long-term impact

[Graph showing the increase in drug costs from 2000 to 2015. The graph includes a line for actual expenditure and a line for estimated expenditure at 2000 subsidies. The forecast is shown in the shaded area for the years 2012 to 2015.]
The HTA process

Defining Decision Space
Analysis
Appraisal
Decision Making
Implementation
PHARMAC: The HTA process

Step 1: Receipt of Proposals
Step 2: Medical Advice – PTAC

Consider evidence

Step 3: Economic Assessment
Step 4: Prioritisation for funding

Assess relative value

Step 5: Negotiation

Outcome

Step 6: Consultation
Step 7: Decision
Step 8: Implementation
The Methods: Prescription for Pharmacoeconomic Analysis
<table>
<thead>
<tr>
<th>Type of analysis</th>
<th>Description</th>
<th>FTE Required</th>
</tr>
</thead>
</table>
| **Detailed**     | • A detailed and systematic identification and synthesis of relative clinical effectiveness, prognosis, health-related quality of life, and cost data. Evidence critically appraised.  
• Costs and savings to other government organisations considered in the report in a qualitative manner.  
• Probabilistic sensitivity analysis  
• Appraised internally (clinical assumptions reviewed by the Pharmacology and Therapeutic Committee (PTAC)) and externally. | 2-6 months |
| **Indicative**   | • An interim assessment using some opportunistic data, but more detailed than a preliminary analysis. Evidence critically appraised.  
• Reviewed internally (PHARMAC staff) and by PTAC. | 4-6 weeks |
| **Preliminary**  | • A rapid assessment largely using opportunistic data. Evidence critically appraised.  
• Statistically non-significant events and costs only included if they are likely to change the results of analyses.  
• Reviewed internally (PHARAMC staff). | 1-2 weeks |
| **Rapid**        | • A very rapid assessment using opportunistic data | 1-2 days |
PHARMAC’s Factors for Consideration

Statutory Objective:
Does the proposal or decision help PHARMAC to secure for eligible people in need of pharmaceuticals the best health outcomes that are reasonably achievable from pharmaceutical treatment and from within the amount of funding provided?
The original nine (pre 2017):

1. Health needs of eligible people
2. Health needs of Maori and Pacific peoples
3. Availability and suitability of existing treatment
4. Clinical benefits and risks
5. Cost-effectiveness
6. Overall budgetary impact
7. Direct cost to health service users
8. Government priorities for health funding/Government objectives
9. Other criteria (with appropriate consultation)
# Hypothetical priority list

Proposals are not necessarily funded in the order they are prioritised.

<table>
<thead>
<tr>
<th>Priority</th>
<th>Proposal</th>
<th>Indication</th>
<th>PTAC priority</th>
<th>CUA rank</th>
<th>QALYs per $1m, likely (possible)</th>
<th>Proposal expenditure (first year)</th>
<th>Cumulative expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fantasticol</td>
<td>Lupus</td>
<td>High</td>
<td>1</td>
<td>40-80 (20-100)</td>
<td>$80,000</td>
<td>$0.1m</td>
</tr>
<tr>
<td>2</td>
<td>Colomab</td>
<td>Colorectal cancer</td>
<td>Medium</td>
<td>2</td>
<td>25-50 (15-50)</td>
<td>$5,000,000</td>
<td>$3.8m</td>
</tr>
<tr>
<td>3</td>
<td>Rheumatol</td>
<td>Rheumatic fever</td>
<td>High</td>
<td>6</td>
<td>5-10 (3-10)</td>
<td>$800,000</td>
<td>$4.4m</td>
</tr>
<tr>
<td>4</td>
<td>Typhoid vaccine</td>
<td>Typhoid prevention</td>
<td>High</td>
<td>5</td>
<td>5-12 (2-20)</td>
<td>$330,000</td>
<td>$4.7m</td>
</tr>
<tr>
<td>5</td>
<td>Metoogrel</td>
<td>ACS</td>
<td>Medium</td>
<td>3</td>
<td>7-13 (4-16)</td>
<td>$220,000</td>
<td>$5.6m</td>
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<tr>
<td>6</td>
<td>Tagaglptin</td>
<td>Diabetes</td>
<td>Low</td>
<td>7</td>
<td>4-8 (0-10)</td>
<td>$500,000</td>
<td>$6.1m</td>
</tr>
</tbody>
</table>
Linking implementation strategies: Special Authority
PHARMAC’s Unique situation

Budget
Set by Minister and District Health Boards

Relative Assessment
No cost-effectiveness threshold

Negotiations
Competition for available funding

Allows Programme Budgeting and Marginal Analysis
Siyabonga - Enkosi - Thanks

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