Health Technology Assessment and Personalized Medicine

Dedicated to your information and advancement.

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DIA Conference on Personalized Medicine
October 16, 2009, Toronto, ON
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What do Decision Makers Need?

- Independent, rigorously derived evidence based information
- Relevance – answering the real policy questions
- Messaging – concise, understandable
- Context around decisions – social, legal, ethical, political, patient, public
- Support to interpret and apply the information
About CADTH

- Canadian HTA agency founded in 1989
- Not part of government
- Private, not-for-profit organization
- Funded by Health Canada, the provinces and territories
CADTH Science Programs

- Health Technology Assessment (HTA)
- Common Drug Review (CDR)
- Canadian Optimal Medication Prescribing and Utilization Service (COMPUS)
CADTH HTA Program

- Provides high quality information about the clinical effectiveness and cost-effectiveness of health technologies including drugs
- Resources allocated ~ 50% to drug and 50% to non-drug areas
- Range of products tailored to the needs of health policy decision makers
  - Inquiry service – response 24 hours to 30 days
  - Rapid Reviews – 4 months
  - Full HTAs – 4 to 9 months

www.diahome.org
A national process for:

- conducting objective, rigorous, and timely clinical and pharmacoeconomic reviews
- providing formulary listing recommendations

Formulary decisions are made by the publicly funded drug plans (the payers)
Canadian Optimal Medication Prescribing and Utilization Service (COMPUS)

- Evidence-based information about best practices related to drug prescribing and use
- Advice, tools and proven strategies to help health care providers, policy makers and consumers use this information to facilitate change
- Creates an awareness and culture of best practices

Topic Areas to Date:
- Proton pump inhibitors
- Diabetes management
The Market Access Continuum

- **Medicines Regulation**
  - Quality, safety and efficacy

- **Health Technology Assessment**
  - Clinical Effectiveness
  - Cost Effectiveness

- **Payers**
  - Budget impact, risk sharing, pricing agreements
What HTA Bodies Need

- Evidence on long term use
- Population safety issues
- Information relating to drug interactions
- Information on the full target population
- Comparisons to existing therapies
- Information informing appropriate utilization
- An economic evaluation
HTA and Payer Challenges

- Regulatory versus HTA requirements
  - Efficacy versus effectiveness
  - Comparator data and data on long term use
  - Effectiveness in sub-populations and the “real world”

- Incremental benefit does not always support the additional cost
  - Budgetary impact, appropriate utilization

- Information gaps and uncertainty

- Resource challenges
Typical Drug Review Challenges

- Definition of “first in class” drugs
- Use of surrogate endpoints
- Drugs with limited evidence
- Drugs with high cost-effectiveness ratios
- Use of appropriate comparators versus indirect comparisons
- Drug costs – What price to use?
Finding the Right Balance

- Improved clinical outcomes
- Increased costs

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Restricted to the health technology components

Health technology is defined as:
“Any intervention that may be used to promote health, to prevent, diagnose or treat a disease or for rehabilitation or long-term care.”

Health technologies for personalized medicine:
- Pharmaceuticals
- Diagnostic tests
- Medical Imaging
CADTH View of Personalized Medicine

- Medical imaging, pharmacogenomics, biomarkers are simply pieces of the diagnostic puzzle
- Must consider sub-groups in the economic evaluation
  - Sub-groups must be practice and policy relevant
- Payers will likely apply existing HTA and reimbursement frameworks
- Clinical and cost effectiveness in comparison to standard therapies will still be required
Globally, the pricing and reimbursement environment is focused on *proof of value*
Personalized medicine may or may not involve technology decisions

Existing technology assessment frameworks are well-suited to these types of decisions

Economics is only one piece of the puzzle

Will the benefits of personalized medicine support the costs?