Reimbursement Based Economics: Its Potential Role in Formulary Modernization

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Outline

• Introduction to ODPRN
• ODPRN and class reviews
• Concept of reimbursement based economics
• Initial applications of reimbursement based economics
What is ODPRN

Network of researchers from across Ontario interested in drug policy research

Launched in 2008: Funded through the Drug Innovation Fund (MOHLTC)

Primary Objective:
- Provide high quality, relevant drug research to OPDP in a timely manner on an as-needed basis
ODPRN Core Principles

- High Quality of Academic Research
- Relevant to Decision-Makers
- Timely
- Accessible/Easily Interpretable

AND...
Evolution of the ODPRN

Key Objective: Provide evidence-based recommendations to Ontario drug policy-makers regarding coverage of an entire drug class.
Why undertake Drug Class Reviews?

- Requests to study multiple drugs
- Rapidly changing pharmaceutical environment
- Desire for Formulary Modernization
- Initial reimbursement decisions made within different contextual backgrounds
Principles of Drug Class Reviews

• Conduct reviews that address the needs of patients and policy-makers

• Provide basis for evidence-informed policies that incorporate societal values and beliefs

• May lead to recommendations regarding:
  – Expansion of access to drugs on the formulary
  – Revision or restriction of access to drugs
  – No change to current listing status
  – Alternative drug reimbursement models
  – Education of prescribers regarding appropriate prescribing
# ODPRN Drug Class Review Framework

| Identification of Drug Class to Review | • Solicit ideas for drug class reviews from a broad range of stakeholders  
• Systematically and transparently discuss and prioritize drug classes for review |
|---------------------------------------|------------------------------------------------------------------------------|
| Refinement of Question                | • Define research questions, scope and objectives  
• Obtain relevant contextual information |
| Establish Review Team                 | • Includes ODPRN representation to conduct reviews  
• Identify clinical experts and patient representative |
| Patient and Healthcare Professional Perspectives | • Qualitative analysis of perspectives of patients and healthcare professionals with experience using, prescribing or dispensing the drugs |
| **Rapid Reviews and Network Meta-Analyses** | • Systematic review of the published literature to understand both drug efficacy and safety  
• Assessment of validity and quality of existing research; gaps in evidence |
| **Utilization Trends** | • Analyze historical prescribing trends in Ontario public drug program  
• Understand existing drug policies and assess trends nationally and internationally (where available) |
| **Local and Historical Context** | • Consolidate knowledge from guidelines, labeling information, Health Canada approval  
• Report coverage of similar drugs, availability of generics |
| **Patient and Healthcare Professional Perspectives** | • Qualitative Analysis of perspectives of patients and healthcare professionals with experience using, prescribing or dispensing the drugs |
# ODPRN Drug Class Review Framework

| Environment Scan and Barriers to Implementation | • Summarize funding policies in other jurisdictions both nationally and internationally  
  • Describe successes and challenges in other jurisdictions  
  • Assess ease of implementation of any recommended policy changes |
| Health Equity | • Assess implications of policy changes on health equity  
  • Include consideration of sex and gender based analyses |
| Reimbursement-Based Economics | • Develop drug reimbursement models to identify optimal, evidence-based price points  
  • Consider novel reimbursement approaches (e.g. price caps and coverage-with-evidence development) |
| Recommendation Prioritization and Dissemination | • Solicit input from various stakeholders relating to the feasibility and acceptability of proposed recommendations  
  • Prioritize recommendations based on this feedback |
Essential Activities

1. Collaboration & Dissemination
   – OMA, Pharmaceutical companies, Ontario Pharmacy Council, Ontario Citizen’s Council

2. Stakeholder Engagement
   – Public, patient, care givers, physicians, industry, pharmacists, policy makers
   – One to one interviews, stakeholder workshops, evidence submissions, committee memberships
Pharmacoeconomic Unit within ODPRN

• Coordinated by researchers based at the University of Ottawa and CADTH
  – Potential for involvement of researchers outside of core group

• Objective
  – To generate applied, policy-oriented pharmacoeconomic models
Roles within each class review

• Clarifying and refining study questions
• Drafting of Health Economics Proposal
• Review of economic literature
• *Development of economic model and population with clinical review data (when appropriate)*
• Modeling of alternate reimbursement strategies
  – Reimbursement Based Economics
Reimbursement Based Economics

• Novel, pragmatic approach to pharmacoeconomics

• Identify the optimal reimbursement model considering budget impact and cost effectiveness as criteria.
  – e.g. bundling strategies, price caps, risk-sharing, CED.

• Comprehensive budget impact analysis plus traditional pharmacoeconomic models where relevant.
  – Incorporate market dynamics of different drug policy scenarios.
    • Market expansion, cannibalization, and companion drug utilization effects
Reviews Conducted so Far

• Complete
  – Triptans for migraines

• Ongoing
  – LABA/ICS combination products for COPD
  – LAMA products for COPD
  – Testosterone replacement therapy
Changing Reimbursement Context

• Triptans for migraines
  – Concern over potential over use
  – Availability of generic formulations
  – Possible expansion of use

• LABA/ICS combination products for COPD
  – Not covered under OPDP for COPD but LU for asthma
    • Widespread adoption in COPD population
Research Questions: Triptans Review

• What is the current evidence for the cost-effectiveness of triptans (alone or in combination with other drugs) for acute treatment of migraines?

• What is the economic impact of alternatives reimbursement statuses for triptans (e.g. restricted vs. more open access)?
Methods

• Systematic Review of Published Literature
  – Focused on strength and quality of evidence, and
generalizability of the reports to OPDP
• Reimbursement Based Economic Assessment
  – Developed an applied, policy-oriented economic
  model
  – Forecasted expenditure for each triptan over the next
  3 years
  – Identified alternative approaches to reimbursement of
  triptans
  – Forecasted budget expenditure on triptans for each
  alternative reimbursement strategy
Conclusions from the Review of Literature

• 21 studies identified
  – 13 industry funded – all concluding that the manufacturer’s drug was cost effective

• Common limitations in methodology and applicability across the literature

• Evidence base supportive of conclusion that triptans cost effective compared to ergots
Conclusion of Reimbursement Based Economics

• If triptans were available under EAP at a generic price of 25% of average branded cost and generic substitution:
  – significant reduction in expenditure by OPDP (69%)
  – modest incremental impact with imposing quantity limits

• Changing the reimbursement status of all triptans to general benefit/limited use with or without quantity limits
  – significant increase in expenditure by OPDP, even with a generic price of 25% of average branded cost (302% increase)
Research Questions: LABA/ICS Review

• What is the current evidence for the cost-effectiveness of ICS plus LABA compared to single or combination therapies incorporating LABA, LAMA and ICS?

• Based on a de novo economic model, what is the cost-effectiveness of ICS plus LABA compared to single and combination therapies incorporating LABA, LAMA and ICS?

• What is the economic impact/cost effectiveness of alternatives policies for reimbursing ICS plus LABA?
Approach: LABA/ICS Review

- Systematic Review of Published Economic Evaluations
- De novo Treatment based Economic Evaluation
- Reimbursement Based Economic Assessment
- Timelines
  - 16 weeks to completion of initial report from acceptance of research questions
Conclusions

• Formulary modernization is essential given changing reimbursement context

• Drug class reviews are a necessary component of formulary modernization

• Reimbursement based economics integral within drug class reviews
  – Involves adoption of standard health economics techniques applied to reimbursement strategies not individual treatments