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The Ontario HIV Treatment Network

*Promoting excellence and innovation
in HIV research and care*

HIV-HCV Co-infection: Findings and Implications from a Scoping Review

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Outline

- **Background/rationale for the review**
- **2 core sections of this presentation**
 - Considerations for informing policy using research evidence
 - The scoping review
 - What we did
 - What we found
- **Ideas for moving forward with shaping new research and social policy**

Background/rationale for the review (1)

- **Commissioned to provide an evidence base to inform a think tank (*Hepatitis C and HIV co-infection in Ontario: What we know, where we are, and how to move forward, held on April 16, 2007*)**
 - Co-sponsored by the AIDS Bureau and the Hepatitis C Secretariat of the Ontario Ministry of Health and Long-Term Care, the Canadian Treatment Action Council, and the Ontario HIV Treatment Network (OHTN)



Background/rationale for the review (3)

- **Represents a complex health and social policy issue as it cuts across several policy domains and populations:**
 - Public health
 - Health system delivery arrangements (as well as governance and financial arrangements)
 - who should deliver care
 - where should care be delivered
 - Integration of care across different service providers
 - Legal system (harm reduction, prisons, etc.)
 - Populations: e.g., - Injection drug users, current and former prisoners, Aboriginals, men who have sex with men and youth

Informing policy and shaping future research (1)

- **Research evidence can inform key stages of policy and/or organizational decisions:**
 - clarifying the problem or issue at hand (i.e., ‘making the case’);
 - identifying and selecting options to address the problem; and
 - developing a strategy to address how a policy option, program or service will be implemented.

Clarifying the issue/problem (1)

- **Clarifying the issue/problem at hand by determining whether it relates to one or more of**
 - A risk factor, disease or condition
 - A program, service or drug currently being used
 - Current health system arrangements within which programs, services and drugs are provided
 - Current degree of implementation of an agreed upon course of action (e.g., a policy)

Clarifying the issue/problem (1)

- **Further refine the problem using data and research evidence by working through the following questions:**
 1. How did the problem come to attention and has this process influenced the prospect of it being addressed? **[Data]**
 2. What indicators can be used, or collected, to establish the magnitude of the problem and to measure progress in addressing it? **[Data]**
 3. What comparisons can be made to establish the magnitude of the problem and to measure progress in addressing it? **[Need for administrative database studies or community surveys]**
 4. How can a problem be framed (or described) in a way that will motivate different groups? **[Need for relevant qualitative research]**

Identifying and selecting options (1)

- **Identify potential ‘solutions’ by determining whether it involves confirming/changing:**
 - the program, service or drug currently being used to address a risk factor, disease or condition
 - the current health system arrangements within which programs, services and drugs are provided
 - delivery arrangements
 - financial arrangements
 - governance arrangements
 - the implementation strategies currently being used to support an agreed upon course of action

Identifying and selecting options (2)

Describe each of the three options in terms of:

1. its likely (positive) effects

- Systematic reviews (i.e., questions about effectiveness)

2. its potential harms or risks

- Systematic reviews of studies or studies designed to examine harms or risks

3. its costs and/or cost-effectiveness in relation to the status quo

- Economic evaluations

4. its key elements

- Qualitative studies (or syntheses of qualitative studies)

5. stakeholders views and experiences (if they are likely to influence a policy option's acceptability)

- Qualitative studies (or syntheses of qualitative studies)

Implementation Strategies – Questions to Consider

1. What are the potential barriers to the successful implementation of the policy?
2. What strategies should be considered in order to facilitate the necessary behavioural changes among patients/citizens?
3. What strategies should be considered in order to facilitate the necessary behavioural changes among health workers?
4. What strategies should be considered in order to facilitate the necessary organizational changes?
5. What strategies should be considered order to facilitate the necessary system changes?

Why is this important?

- **Provides an approach to working through the various factors that need to be considered in the development of policy**
- **Highlights the types of data and research evidence that can be informative and the specific stages of the policy process they can inform**
- **Can help shape what additional data and research evidence are needed to inform policy**

Review Objectives

- **To provide a summary of the existing evidence-base and an inventory of relevant systematic reviews and treatment guidelines that are currently available.**
- **Our specific objectives were therefore to:**
 1. Identify and assess the quality of systematic reviews and/or treatment guidelines about treatment, care and support as well as about the epidemiological profile for people co-infected with HIV and HCV; and
 2. Map the sources and types of evidence that are available, identify areas where systematic reviews could be completed and highlight where additional primary research is needed.

Methods – Search strategy

1. Database search with search terms

- 7 databases (1996- 2007): Medline, PubMed, Cochrane Library, PsycInfo, AIDSearch, Canadian HIV and AIDS Policy and Law Review and Google Scholar

2. Citation Search

- A cross-check on citations included in the bibliographies of studies found through the database searches, particularly with grey literature resources.

3. Hand-searching of key journals (2000-2007)

- AIDS Care, AIDS Policy and Law, AIDS Care, Annals of Internal Medicine, Canadian Journal of Gastroenterology, Canadian Medical Association Journal, HIV Medicine, JAIDS, New England Journal of Medicine.

4. Contacting experts, relevant organizations, and existing networks

Methods – Inclusion criteria and reviewing

- **All reviewing was completed by 2 independent raters**
- **All included systematic reviews and treatment guidelines were quality appraised (AMSTAR and AGREE)**
- **3 stage approach to developing inclusion and coding criteria**
 1. coded 200 titles and abstracts (question, subject area, population, setting/jurisdiction)
 2. Met as a team, collectively revised the framework to include additional codes and applied the framework to all search results
 3. Collectively developed final inclusion and coding criteria and applied to the full-text of all references that were kept from the previous round of reviewing

Final inclusion criteria

Treatment

- Studies had to be primary research (including systematic reviews/meta-analyses) or treatment guidelines
- Treatments assessed had to either be Pegylated-Interferon and Ribavirin for HCV (ie., standard of care) or HAART for HIV treatment (or both).
- Treatment studies that only assessed populations of haemophiliacs and those conducted in the developing world were excluded.

Epidemiology

- Studies had to be primary research
- Excluded if only assessed populations of hemophiliacs and from developing countries.

Care/support/programming and prevention

- Included all studies/reports with a focus on co-infection as the literature in these areas is quite sparse.

Final coding criteria

Methods Used

- Treatment Guidelines
- Systematic Reviews
- RCTs
- Health Technology Assessment
- Longitudinal (prospective)
- Longitudinal (retrospective)
- Cross-sectional/case study
- Qualitative
- Grey literature studies

Scope of Studies

- Local
- Multi-city/national
- Multi-country

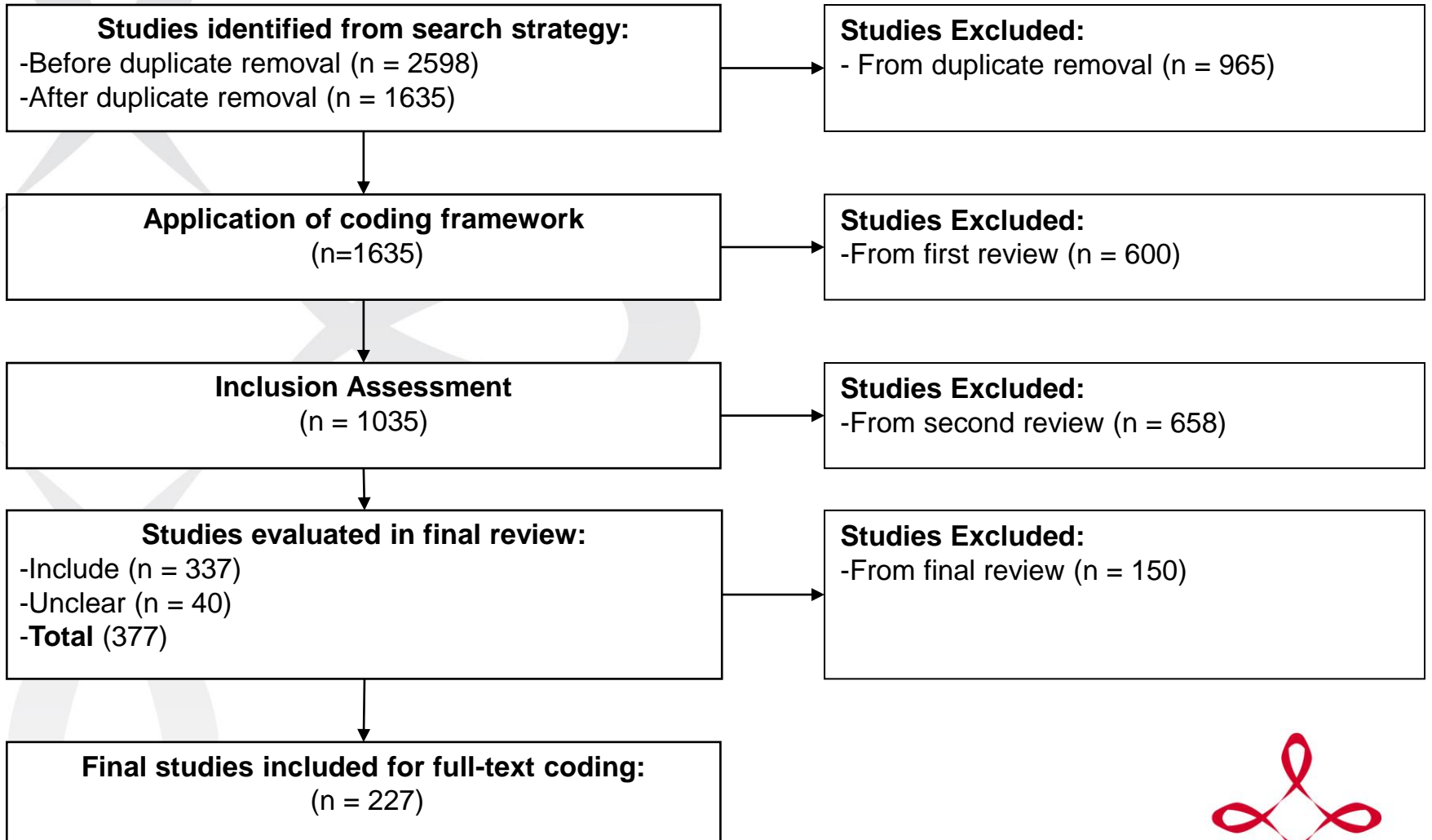
Populations Studied

- IDUs
- Women
- MSM
- Aboriginals
- Youth
- Other (clinic or institution based)
- Other

Countries Studied

- Europe
- United States
- Canada
- Australia
- Other

Study flow diagram



Key findings (1)

9 treatment guidelines identified

- Jurisdictions: Canada (3), U.S. (2), UK (1), Italy (1), Spain (1) and general international focus (1)
- Most about treatment and care for co-infection but one about reproductive care (Canada)
- Quality appraisals:
 - 4 are ‘strongly recommended’
 - 3 are ‘recommended (with provisos or alterations)’
 - 1 was classified as ‘we would not recommend’
 - 1 not appraised as it could not be located

Key findings (2)

10 systematic reviews located

- **Topics addressed:**

- Treatment (3)
- Epidemiological questions (3)
- Care/support/prevention (6): decision aids for screening, methadone programs, needle exchange

- **Populations studied**

- Outpatients/clinic populations
- IDU
- Prisoners
- Women

- **Quality appraisals:**

- 7 high quality, 2 Medium and 1 low

Key findings (3)

- We found:
 - 114 treatment publications;
 - 52 epidemiological publications; and
 - 79 care/support/programming/prevention publications
- The epidemiological literature indicates that co-infection is mostly found among current and former IDUs....however
- Treatment guidelines and systematic reviews are often based on literature that does not include current IDUs or people with mental health issues
 - treatment in these populations should proceed on a 'case by case basis'.
- Lack of consensus or strategy for how to approach HIV-HCV co-infection – variability in practices.

Review Conclusions (1)

- **This quality assessed inventory of treatment guidelines and systematic reviews can be used by physicians, service providers and policymakers to rapidly determine:**
 1. if there are guidelines or reviews available that are specific to their jurisdiction to help with treatment or service delivery decision-making; and
 2. If the guideline or review is of sufficient quality to use in their decision-making
- **Much of the research is based on literature that does not include injection drug users (IDUs) or people with mental health issues, which limits its scope and applicability to important populations who have a high prevalence of HIV-HCV co-infection.**

Review Conclusions (2)

- **Need to integrate prevention, screening, care, support and programming efforts and the funding streams for existing programs**
- **An integrated programming and funding strategy will allow for populations to receive services for care, support and prevention, not only for HIV–HCV co-infection but also for other co-morbidities such as IDU and mental health issues.**

Some ideas...

- **Use the approach of developing a policy/evidence brief to inform and develop policy related to HIV co-infections**
 - What specific issues or problems need to be addressed?
 - What are the potential options to address the issue/problem and what are the key messages from the available research evidence for each option
 - integrated screening, prevention, treatment, care and support
 - multidisciplinary teams for the treatment and support of people with HIV co-infection?
 - What barriers exist to implementing each option and what strategies can be used to overcome them?
- **Use this process to help identify research gaps and guide the development of new research**

Acknowledgements & Resources

- **Co-authors: Melisa Dickie, Curtis Cooper, Adriana Carvalhal, Jean Bacon, Sean B. Rourke**
- **Full scoping review published in *Open Medicine* (<http://www.openmedicine.ca/article/view/214>)**
- **Resources:**
 - SUPPORT Tools for evidence-informed health Policymaking (STP) – A series of 18 articles (<http://www.health-policy-systems.com/supplements/7/S1>)
 - Examples of policy & evidence briefs
 - McMaster Health Forum (www.mcmasterhealthforum.org)
 - WHO Health Evidence Network (<http://www.euro.who.int/en/what-we-do/data-and-evidence/health-evidence-network-hen>)