Delivering a Cure for Hepatitis C Infection: What Are the Remaining Gaps? An Overview of the Latest in Research and Implications for Frontline Efforts

March 15th 2017

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Overview

1. Context of the 6\textsuperscript{th} Canadian HCV Symposium
2. CATIE Learning Institute
3. Key research from the Symposium
4. Community/ Research discussion
   
   Sandrine Brodeur, AQPSUD
   Mohamed, CanHep C Postdoctoral Fellow

5. Questions
Context

- Canada’s premier Hepatitis C research conference
- Important annual event to disseminate new HCV research
- 6th year
- Title: “Delivering a Cure for Hepatitis C Infection: What are the remaining Gaps?”
- 250 participants
CATIE Learning Institute

Knowledge Exchange event

Goals:
- Synthesize and disseminate research across regions
- Bring community realities into Symposium
- Networking

10 Representatives from across Canada

This presentation is a product of our collective synthesis:
- Most relevant research for front line organizations
- Community perspective

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Delivering a cure for Hepatitis C Infection: What are the remaining gaps?

Remaining gaps?

Depends on the goal:
• Developing curative HCV treatments?
• Elimination of HCV?
• Something broader (Social determinants of health, liver health, etc.)

Definitions
- *Eradication*: Permanent reduction to zero of worldwide incidence

- *Elimination*: Reduction to zero of incidence in a defined geographic area
eliminate liver DAMAGE (not failure, I think).

Liam Michaud, 3/3/2016
Treatments: Remaining Gaps?

Curative treatments – Remaining gaps?

- Difficult to cure:
  - Genotype 3 with cirrhosis
  - Advanced liver disease
  - Treatment resistance

Genotype 3
- New pan genotypic regimes have very high cure rates above 95% (Pawlotsky)
- SOF/VEL/VOX: Cure rates greater than 95%
- Glecaprevir/Pibrentasvir: Cure rates greater than 96%
Treatments: Remaining Gaps?

Advanced Liver disease (Pawlotsky, J.)
- SOF/LED + Rbv – good cure rates, near 90%
- Only 17-33% improvement in liver disease after cure
- Therefore a) treat earlier b) liver transplant then treat

Resistance to DAA treatments (Pawlotsky, J.)
- Next generation regimes very promising with cure rates 95% and higher.
- Glecaprevir + Pibrentasvir: cure rates near 98%
- Grazoprevir/Elbasvir + Rbv: cure rates of 100% for genotype 1
- SOF/VEL/VOX: Above 95% for all genotypes

- Curative treatments exist for vast majority. Remaining gaps mostly for those with advanced liver disease, but new generation will close that gap significantly.
Elimination: Remaining Gaps?

Access to treatment (F2 and physicians)
- Testing
- Access to programming
- Prevention

Access to treatment
- To achieve elimination by 2030, need universal access (Sherman, M. and Myers, R.)
- Progressive approach of several provinces is promising: eligibility
- Access to treatment in prisons
- Adherence amongst PWID is high – 94% in Community Based Toronto Program (Guyton, et. Al)
- Intellectual scotoma, profiling (Lafontaine, A.)
- Broaden prescriber base for those with low fibrosis - beyond gastro/ID- (Grebely, J. Kirby Institute)
Elimination: Remaining Gaps?

Testing and linkage to care
- Testing remains sub optimal
- Must develop strategies to screen priority populations: baby boomers, immigrants/newcomers, people in prison, Indigenous peoples, people who use injections drugs (Sherman, M.)
- Xpert HCV RNA testing good sensitivity and specificity (Grebely, J. Kirby Institute)
Elimination: Remaining Gaps?

Access to programming
- Progressive access to treatment but access to programming remains a major gap (Krajden, M.)
- BC Hepatitis Testers cohort - comprehensive surveillance program: Individuals with mental health and cirrhosis not getting on treatment
- Solutions exist: Hepatitis C Treatment and Care in Big River First Nation Community (Pandey, M.)

Barriers: Transportation, information on navigating the system, racism, confidentiality.

Solutions: Local health care centre, nurse-led model, use of technology, federally funded nursing staff, elder and community support, mobile clinic.

- Provincial / national strategies (Barrett, L.)
Elimination: Remaining Gaps?

Access to prevention programming
- Prevention of primary infection and re-infection must be improved to reduce burden of disease (Hagan, H. New York University)
- Enhanced harm reduction reduces the risk of HCV infection by more than 70%. This includes:
  a) OST
  b) High syringe coverage – no limit to needles
  c) Access to cookers, cottons and other equipment
     (20 – 60% of infections)
  d) Safe drug use education
  e) Safe consumption sites
  e) Treatment and prevention networks (social support, wake up dose, periodic detox to lower tolerance, etc.)
- Minority of PWID have access to these programs
Elimination: Remaining Gaps?

Access to prevention programming
- 1 in 10 people with addictions receive any kind of treatment (Wood, E.)
- Totally new approach needed: e.g primary care based model of addiction services
- Yet even adequately funding existing addiction services would have significant impact (Wood, E.)
Broader Goals: Remaining Gaps?

Broader Goals

• Liver cancer/ fibrosis
• Social determinants of health
• Broad personal and social transformation: Indigenous approach to wellness/change

Liver cancer/ Fibrosis
- Liver cancer second leading cause of cancer death in the world
- Following viral cure, risk of liver cancer decreases but remains significant
- Strategies to prevent liver disease progression and cancer
- Instead of targeting viral proteins, modulate virus-host interactions
Broader Goals: Remaining Gaps?

Social determinants of health

- Social drivers of HCV and other health issues: public health response (Tyndall, M.)
- Populations most affected dealing with overdose, homelessness, food insecurity, etc.
- Broaden what we measure
- Legalization of drugs will have significant impact on social drivers of the problem (Woods, E.)
Broader Goals: Remaining Gaps?

Indigenous approach to wellness/change
- Wholistic Hepatitis C care is about broad personal/social change, not simply eliminating virus (King, A.)
- 4 laws of change (Lund, C):
  1) Change is from within
  2) Must be proceeded with a vision
  3) Great learning must occur
  4) Requires a healing environment
- Harmonize traditional and western models of wellness
- Connection to earth, ceremonies, relationships
- Research in a good way: Acknowledge history, decolonize relations, community based research which transforms through the process (Masching, R.)
Conclusions

Remaining Gaps?

- Depends on goal and location—crack and chasm
- Highly effective curative treatments developed
- Elimination may be possible by 2030 but requires access to treatment, programming and broad testing
- Broad social transformation, decolonization, healing is an ongoing process
- In choosing our models, explore the goals/outcomes carefully: Australian model, Indigenous community based models, other models of care.

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Community/Research Discussion
Learning from the frontline and community

Knowledge Exchange events

**Goals:**
- Bridging the gap between researchers & community
- Creating mutual perspectives & agendas
- Prioritizing what community needs
- Minimizing sensitivity in collaboration

“*I’m right there in the room, and no one even acknowledges me.*”
Thank you

Learning Institute Participants
Julie Beaulieu – Centre SIDA Amitie
Barb Bowditch – Access Place
Sandrine Brodeur – AQPSUD
Angelina Butt – Aids Committee of Newfoundland and Labrador
Lauren Charles – Access Place
Eric Dang – Streetworks
Zoe Dodd – Toronto Hepatitis C Program
Lindsay Jennings – PASAN
Sandy-Leo Laframboise – Dancing Eagle Spirit
Anu Randhawa – Punjabi Community Health Services

CATIE Staff
Scott Anderson
Melisa Dickie
Liam Michaud
Fozia Tanveer

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Thank you

CanHep C Trainees

Mohamed Abdel-Hakeem, Post Doctoral Fellow – University of Pennsylvania
Annie Bernier, PhD Candidate – McGill University
Thomas Fabre, PhD Candidate - University of Montreal
Emmanuel Fortier, MD/PhD – University of Montreal
Sahar Saeed, PhD Candidate – McGill University
Questions
Please evaluate this webinar.

Thank you!