CATIE

Canada's source for HIV and hepatitis C information

La source canadienne de renseignements sur le VIH et l'hépatite C

CanHepC

Canadian Network on Hepatitis C

Réseau Canadien sur l'Hépatite C

Research Presented at the 5th Canadian Symposium on HCV - Feb. 25th 2016

S. Fish, Knowledge Broker, Community Health Programming, CATIE

March 7th 2016

Overview

1. Context of the 5th Canadian HCV Symposium
2. Synopsis of the CATIE Learning Institute
3. Biomedical Sciences
4. Clinical Sciences
5. Epidemiology and Public Health
6. Behavioural Sciences
7. Conclusions

Context

- Canada's premier research conference in HCV
- Important annual event to disseminate new HCV research
- 5th year
- Title: "We're not done yet: Remaining Challenges in Hepatitis C"
- CanHep C Network (CIHR – PHAC Collaborative)
- 250 participants

CATIE Learning Institute

Knowledge Exchange event

Goals:

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

13 Representatives from all regions

This presentation is a product of our collective synthesis:

- Most relevant research for front line organizations
- Community perspective

LM3

Biomedical Sciences

Upcoming Medical Advances

1) HCV Vaccine (Dr. Cox)

Do we need a vaccine?

Reasons for a vaccine

- Drug resistance and mutations
- Reinfection
- Treatment is expensive
- Clearance of HCV reduces but does not eliminate liver damage
- Broad reach
- No pathogen has ever been eradicated with treatment alone

Reasons we don't need a vaccine

- We have highly effective treatments – prioritize accessibility
- Vaccine does not equal eradication

Slide 5

LM3 eliminate liver DAMAGE (not failure, I think).
Liam Michaud, 3/3/2016

Biomedical Sciences

Do we need a vaccine?

Conclusions

- Vaccine would be effective alongside prevention, treatment, care
- Priority
- Possibility

Challenges

- Diverse virus
- Infeasibility of using live attenuated or inactivated whole virus as HCV vaccines
- Numerous mechanisms through which HCV evades immune response
- Attracting public investment
- Human study?

Opportunities

- Evidence for natural protective immunity - 25% spontaneous clearance
- Vaccine investigation already underway - BBAASH phase 2 clinical trials (Cox, A.)

LM2

Biomedical Sciences

Upcoming medical advances

2) Pan-genotypic treatments

- Next advancement in HCV treatment
- Easier for non-specialist healthcare providers to treat

3) Broad spectrum anti-virals (Lamarre, D.)

- A lot we don’t know about the immune response to HCV
- Not easy to find individuals in the acute phase of infection

LM2 for healthcare providers AND NON-SPECIALISTS to treat.
Liam Michaud, 3/3/2016

LM4

Clinical Sciences

What have we learned from real world roll out of DAAs?

- Unlike interferon treatments, similar efficacy, tolerability and safety patterns as clinical trials (Nelson, D.)
- Successful therapy for individuals with decompensated cirrhosis
- Genotype 3 patients, especially those who are treatment experienced and have cirrhosis show suboptimal response
- Response guided therapy no longer needed (Nelson, D.)
- Over treating 90% of individuals (Nelson, D.)
- SVR not impacted by IDU or stable housing (Huchet, E.)

Slide 8

LM4 would clarify for last point, evidence suggests SVR same at 8 and 12 weeks. (could be misinterpreted)
Liam Michaud, 3/3/2016

Clinical Sciences

What impacts SVR?

- Adherence not the major barrier (Huchet, E.)

Rather, genotype and physiological factors play a role:

- Co-infection
- Age
- Cirrhosis
- Ethnicity

- What level of adherence required? (Cox, J.)

- Language: ‘Treatment failure’ and ‘relapse’ versus SVR

LM5

Clinical Sciences

Does resistance matter?

- Resistance versus not achieving SVR

- Resistance comes from virus mutations during virus replication
- Natural in all virus replication
- Treatment of virus resistant strains
- Poor adherence

Of growing importance (Harrigan, R.)
- Pre-screening
- Drug combinations
- “For every treatment failure the individual and society are worse off.”

Not a priority
- Accessibility more an issue
- Small numbers and multiple drugs available

Slide 10

LM5 Onward transmission of drug resistance HCV is happening

Liam Michaud, 3/3/2016

Epidemiology and Public Health

LM6

How to decrease prevalence of HCV? Eliminate HCV?

- Issue is transmission, not re-infection (Hickman, M.)
- Prevention technologies (OST and NSP can reduce transmission by up to 50% but extremely high coverage needed.)
- Scaling up treatment is required to substantially reduce prevalence
- Treating PWID is cost effective since averts an additional 1 to 2 infections
- Public health perspective: PWID a priority for treatment, not fibrosis level (especially PWID in prison setting)
- Treatment as prevention

Slide 11

LM6 2nd point: Remove 'extremely' (he differentiated between low, med, high coverage).

2nd point: Greater than 50%:
61% for NSP and 54% for OST

4th point: i heard 2. could be wrong.
Liam Michaud, 3/3/2016

Epidemiology and Public Health

How to decrease prevalence of HCV? L.I perspective

- Transmission high in prison settings
- Access to full continuum of care in prison, including NSP, OST, treatment roll out, addictions services
- Decarceration as prevention
- Research in correctional facilities critical in improving access to continuum of care
- Dr. Lisa Barrett, first phase 4 study with incarcerated population in 60 years.
- Research framework and ethics provides precedent and model: multi-stakeholder developed, independent advocates. (Justice, equity, coercion, confidentiality.)
- More research also needed in Northern communities

Epidemiology and Public Health

Gaps – L.I Perspective

- Intersectionality
  - MSM versus IDU
  - Newcomers, what about this 35%
  - African, Black and Caribbean populations
- Transmission through drug inhalation
- Women under-represented in the numbers:
  - Women and drug use
  - Mothers, drug use, stigma, child welfare

Behavioral Science

Lessons from successful models (El-Sayed, M.)

Treatment roll out in Egypt

- Ministry of Health established nationwide treatment program
- 140,000 further 300,000 by end of 2016 (Canada 330,000 infected.)
- Online web based appointment scheduling
- Less than $300 per treatment course

Lessons:

- Political will
- Reparations model vs. IDU in Egypt?
- Re-infection ongoing but not impacting treatment

Behavioural Sciences

Indigenous Methodologies (King, A and Macklin, C.)

- Meaningful engagement of First Peoples in all aspects of health and wellbeing (UN DRIP, Truth and Reconciliation Report.)
- Call for representation of Indigenous peoples within research, clinical, programmatic and policy sectors proportional to disease burden.
- *Two eyed seeing* and leveling the playing field (reciprocal learning)
- Role of ceremony in research
- Community-led research
- Healing: role of culture, finding purpose
- Root causes of epidemic historical and ongoing context of colonization, trauma.
- Solutions connected to decolonization

Behavioural Sciences

Lessons:

- *Two eyed seeing* – value of different kinds of expertise (lived experience)
- Meaningful engagement of those most affected within all spheres (patient advocate)
- Community-led research/program development (CACTUS)
- Non traditional factors related to healing (spirituality, hope, etc.)
- Systems of oppression as root causes and space for long term solutions

Behavioural Sciences

- From research to action
- Public health vs. social change approach (Krajden, M.)
- Treatment based rhetoric detracts from health equity – systems of exclusion and oppression
- Window of opportunity to pressure government (Werb, D.):
  - Prison based NSP
  - Bill C2
  - UNGASS on Drugs (harm reduction)
- Need more than research - KTE assumes rationality (Betteridge, G.)
- Need activism! Contribution of social capital
- Advocacy as a professional duty

Behavioural Sciences

From research to action: Learning Institute Perspective

- Physician training (working with PWID)
- Language training
- National harm reduction symposium
- Dialogue on strategies for working in prison, peer based programs in prison, decarceration strategies

Conclusions

- Emphasis on diverse sciences and methodologies
- Population lens and emphasis on PWID and people in prison
- Input from community based research and programs
- Continue to broaden methodologies/fields
- Continue to meaningfully engage people most affected from all populations affected
- Continue to create safer space

Thank you

Learning Institute Participants

Ed Bennett – Canadian Aboriginal Aids Network
Angelina Butt – Aids Committee of Newfoundland and Labrador
Morgan Chalifoux - Streetworks
Sarah Cloutier – Blood Ties Four Directions
Adam Cook – Canadian Treatment Action Council
Zoe Dodd – Toronto Hepatitis C Program
Pierre Hould – Hepatites Ressources
Stephanie Massey – PASAN
Leone Quewezance – All Nations Hope
Natasha Touesbard – Mainline Needle Exchange
Karen Turner – Streetworks
Jackie Valois- Prince Albert Correctional Centre
Yung Wo Jao – CATIE Community Facilitator

Thank you

CanHep C Network Graduate Trainees

Nicholas Van Buuren , Post Doctoral Fellow– Stanford University
Thomas Fabre, PhD Candidate - University of Montreal
Emmanuel Fortier, MD/PhD – University of Montreal
Alison Marshall, PhD Candidate – University of New South Wales
Sahar Saeed, PhD Candidate – McGill University

CATIE Staff
Scott Anderson
Michael Bailey
Melisa Dickie
Jennifer Grochocinski
Liam Michaud
Barb Panter
Hywel Tuscano

Thank you

Questions

Please complete post-webinar evaluation!

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