Expanding community pharmacist’s roles in Hepatitis C through the use of point-of-care testing

Klaudia Zabrzenski BscPharm, Katherine Kolasa BScPharm – ACE team
Christine Hughes PharmD - Faculty of Pharmacy & Pharm Sciences

Objectives

At the end of this session, participants should be able to:
1. Describe the importance of screening for and treating hepatitis C virus (HCV).
2. Discuss benefits and challenges with point-of-care tests in screening for HCV.
3. Discuss pharmacist-led models for screening and treatment of HCV.
4. Outline considerations when implementing point-of-care testing in pharmacy practice.
Why screen and treat hepatitis C virus?

- Associated with significant morbidity and mortality – lifetime cost to Canadian health system of $64,000 per chronic infection
- Disproportionately impacts vulnerable populations
- New treatments (DAAs) – safe and effective!!
- Treatment as prevention – population-level prevention (no vaccine available)


• Targets for Canada by 2030:
  - 80% decrease in new infections
  - 90% of people living with HCV will be diagnosed
  - 80% of people living with HCV will have initiated treatment

Priority Populations in Canada

- People who inject drugs
- Indigenous peoples
- Gay, bisexual and other men who have sex with men
- People with experience in the prison system
- Immigrants and newcomers from countries where HCV is common

Priority Populations in Canada

Available at: https://www.canhepc.ca/sites/default/files/media/documents/blueprint_hcv_2019_05.pdf
Who should be tested for HCV (at least once)?

- **Risk behaviors**: IDU (current or ever), intranasal illicit drug use
- **Risk exposures**: persons on long-term hemodialysis, needle stick injuries, children born to HCV-infected women, persons ever incarcerated, recipients of transfusions or organs (especially before 1992), sexual contact or sharing personal care items with someone who is HCV-infected
- **Associated conditions/circumstances**: HIV, solid organ donors, unexplained liver disease/↑ ALT or clinical clues
- **Demographics**: born between 1945 and 1975*, having lived in endemic area (where HCV prevalence > 3%)


Screening - Laboratory Tests

- Serologic screening
  - **Step 1**: Initial screen of HCV antibodies (antibody EIA)
    - Indicates acute, chronic or past infection
  - **Step 2**: Qualitative HCV RNA assay (PCR)
    - Positive indicates active disease
    - Negative indicates no active disease (past infection)

Cascade of Care in Alberta (2009-2016)

[Graph showing cascade of care in Alberta from 2009 to 2016]
New (and targeted) Approaches Needed

- High proportion not aware they are living with HCV
- Challenges reaching individuals at risk
- Requires partnerships and use of new technology

Rapid Testing – Approved in Canada in 2017

Point of Care Testing - HCV

Advantages
- Easy to perform (capillary blood – finger prick)
- Results available at point of care
- Very good sensitivity and specificity
- Easy to adapt to different practice models and settings
- “Low barrier” for testing

Disadvantages
- Requires bloodwork (HCV RNA) to confirm chronic infection
- Sharing results – not on Netcare
- Patients need to be linked to care
- Patients may be at risk for HIV or other STIs
- Cost of testing
Role of Pharmacists in HCV

- Disease prevention and screening
  - Education/awareness
  - Harm reduction (e.g., clean needles, ODT)
  - Screening
- Treatment

Mohammad et al. Pharmacotherapy 2014;34:1341-54.

Education of Pharmacy Students

- Basic training on stigma and ways to reduce stigma
- Vulnerable populations
- Hepatitis C - pathophysiology, screening, goals of therapy, and treatment (basics)
- Exposure to point of care testing

IMPLEMENTING NEW PHARMACY SERVICES FOR HEPATITIS C
**Hepatitis C Training**

INHSU (www.inhsu.org)
- Free online modules
- Face to face workshops with local specialists in hepatitis C care

**ECHO Hepatitis C Outreach (Dr. Sam Lee)**
- Tailored to supporting rural practitioners
- 2 day training - case workshop, didactic lesson, clinic preceptorship at Calgary UCMC
- Bi weekly video conferencing with mentors to discuss cases

**Numerous Online Resources for Independent Learning**
- CATIE website training modules (catie.ca)
- Hepatitis C Online modules (https://www.hepatitisc.uw.edu)

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**Models of Hepatitis C Care**

**Adherence and Community Engagement (ACE) Team**
- Pharmacist-led outreach team
- Focus on HIV-Hep C co-infected patients
- Collaborative care with specialists
- Stabilization, improving adherence, wrap around supports
- Direct hepatitis C referrals
- Testing and treatment of partners

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**Models of Hepatitis C Care**

**Shoppers CHOICE Program**
- Screening of ODT clients at the pharmacy counter
- Confirmatory lab work and clinical workup
- RPh prescribing and initiation of treatment
- Coupling treatment with opioid substitution therapy
- Follow up monitoring
Models of Hepatitis C Care

Community Pharmacy - Mint Health + Drugs
• 2 inner city community pharmacies
• POCT screening, clinical work up and lab work
• Outreach screening
• RPh initiated hepatitis C treatment
• Incorporated as part of regular care planning

Incorporating Hep C into your Practice
• Educate yourself, get excited!
• Determine patient population of need
• Incorporate patient education and signage for Hep C
• Create connections with specialists to ensure proper referral pathways where needed
• Incorporate screening questions and work up as part of regular CACPs/SMMAs
• Determine need for POCT

Incorporating POCT into your Practice

Key Points for Pharmacists:
• Only order and initiate POCTs if indicated, appropriate and safe.
• Must have a therapeutic relationship with the patient.
• Perform only tests for lab work that is not otherwise available (eg. Netcare results).
• Obtain informed consent from the patient.
• The pharmacist has adequate knowledge of the test, how to perform, interpret and act on the results.

Key Points for Licensees:
• Know what POCTs are being provided at your pharmacy and who is administering them.
• Provide written Standard Operating Procedures for each type of POCT.
• Ensure appropriate environment and conditions for testing.
• Ensure proper training of staff.
• Ensure proper management of equipment and calibration as per manufacturer recommendations.
• Include a quality assurance process for POCT.

https://abpharmacy.ca/sites/default/files/Standards_Lab_POCT.pdf
<table>
<thead>
<tr>
<th>The Role of Pharmacy Technicians in POCT</th>
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<tbody>
<tr>
<td><strong>Pharmacy technicians may:</strong></td>
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<tr>
<td>• Explain the POCT</td>
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<tr>
<td>• Review consent forms</td>
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<tr>
<td>• Perform the actual POCT</td>
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<tr>
<td><strong>Pharmacists should be involved in:</strong></td>
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<tr>
<td>• Pre- and Post-Test Counselling</td>
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<td>• The interpretation and delivery of results to the client</td>
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<td>• Determining necessary next steps:</td>
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<td>• Collaboration letters to other healthcare providers</td>
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<tr>
<td>• Ordering follow-up testing</td>
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<tr>
<td>• HCV work-up in anticipation of referral or prescribing for those who have undergone initial training to gain HCV Prescriber status</td>
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</tbody>
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