Lessons to be learnt from the Dundee Model of HCV Screening & Treatment

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The Catherine McAuley Centre, Nelson Street, Dublin
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Declaration of Financial Interests or Relationships

Speaker Name: Andrew Radley

I have the following financial interest or relationship(s) to disclose with regard to the subject matter of this presentation:

• Grant/research support: Gilead, BMC, Roche
• Consultancy: Abbvie
• Educational Grants: Gilead
• Employment: NHS Tayside / University of Dundee
Presentation Overview

• Leadership
• Ambition and Purpose
• Coordination
• Recruitment of Supporters
• Narrative of Success
• “Walking the Walk”
• Exploiting local advantages
• Resilience and perseverance
Welcome to Tayside
Sexual Health and Blood Borne Virus Framework

2015-2020 Update

Between 2015-2020 at least 1,500 people per year will be initiated onto antiviral therapy in Scotland.

Assuming this treatment target is met, the Scottish Government is aiming for a 75% reduction in the annual number of people developing hepatitis C-related liver failure and/or liver cancer by 2020.
Multidisciplinary managed care networks: —Lifesaving interventions for hepatitis C patients

J. M. Tait, H. Wang, B. P. Stephens, M. Miller, P. G. McIntyre, S. Cleary, J. F. Dillon

Summary
Successful hepatitis C virus (HCV) therapy depends on effective pathways of care. Over two decades, we have developed four sequential models of care latterly using a multidisciplinary managed care network to improve HCV testing, care and treatment.
HCV testing and treatment pathways for the PWID and OST populations

Standard HCV testing and treatment to all at risk of HCV

Primary/secondary care

At risk patients offered venous blood test by physician

HCV therapy provided in secondary care by specialist nurse-led clinics in 1 hospital and 18 outreach clinics

 OST clients offered DBS test by pharmacist

HCV therapy provided by specialist nurse-led clinics

Pharmacies

Drug treatment centres

Prisons

Needle exchange

Enhanced HCV testing and treatment service targeting PWID

DBS test by trained addiction worker

HCV therapy provided by specialist nurse-led clinics

Prisoners offered POC test on admission by prison nurse

HCV therapy provided by specialist nurse-led clinics

DBS offered by trained needle exchange staff

PWID defined as those who either (a) are currently injecting drugs, (b) have ever injected drugs and are currently on opioid substitute therapy, or (c) have ever injected drugs and are currently in prison

DBS: dried blood spot; OST: opioid substitution therapies; POC: point of care; PWID: people who inject drugs
24th January

Tayside project set to wipe out hepatitis C in ‘world first’

A SCOTTISH region is on track to eliminate a potentially lethal illness within four years in a world first.
“Walking the Walk”

**Theory**
- Community Pharmacists can test, diagnose and treat people with Hep C

**Modelling**
- Focus Group Series
- Discrete Choice Experiment
- Quasi – Experimental

**Exploratory**
- DOT-C A pilot cluster RCT

**Definitive**
- Super DOT-C A phase 3 multicentre Cluster RCT

**Increasing Evidence**
Themes Identified:

**Experiences of Care**
- Stigma and discrimination
- Confidentiality
- Changes that need to occur

**Knowledge and Experiences of Treatment**
- Mechanics of care
- Burden of treatment

Designing a Hepatitis C Testing Service in Primary care: a Discrete Choice Experiment

<table>
<thead>
<tr>
<th>Preference</th>
<th>Willing to Wait</th>
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<tr>
<td>Own rather than other pharmacy</td>
<td>3.9 weeks</td>
</tr>
<tr>
<td>Own pharmacy rather than GP</td>
<td>2.1 weeks</td>
</tr>
<tr>
<td>Treated with respect</td>
<td>9.0 weeks</td>
</tr>
<tr>
<td>Reduce travel by 1 mile</td>
<td>0.4 Weeks</td>
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</tbody>
</table>
DOT-C – A Pilot Cluster RCT of HCV Testing and Treatment In 8 Community Pharmacies

Pharmacist Led

Patient Cohort
285 Untested

Standard of Care

89 DBST

63 DBST

29 Reactive Tests

11 Reactive tests

3 Treated

1 Treated

IJDP 2017 doi: 10.1016/j.drugpo.2017.05.042
DOT-C : Waterfall plot of Treatment Attrition

- Number of patients
- DBST taken
- Reactive Tests
- Did not attend
- Genotype 3
- Spontaneous clearance
- Treated

Conventional Pathway
Pharmacist-Led Pathway
DOT-C – A Pilot Cluster RCT of HCV Testing and Treatment In 8 Community Pharmacy

Conventional pathway

- Patient Referral
- Outpatient appointment
  - Assessment Bloods
- Outpatient Appointment
  - Fibroscan
  - Appointment Medical Clinic
    - Medical Review
  - Radiology Appointment
    - Ultrasound Liver / OGD
  - Medical Clinic Appointment
    - Review of Gen 3 Patients
- Outpatient Clinic Appointment
  - Repeat Assessment Bloods

Pharmacy pathway

- Patient Attendance for Methadone
  - DBST
    - Reactive DBST
      - Assessment Blood Tests
  
Blood Tests in Normal Range
  - Fib 4 < 3.12
    - Pharmacy Assessment of Liver Function, Fib 4

  - Blood Tests
  - Pharmacy Dispensing and administration
  - Prescription
  
Weeks
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 9
  - 10
  - 11
  - 12

Outpatients Review 3 months
  - SVR blood test
Outpatient Review 6 months
  - SVR blood test

Discharge
Super DOT-C - A Phase 3 Cluster RCT of Pharmacist-Led Vs Standard of Care Testing and Treatment of HCV

Pharmacist-Led

1800 Methadone Users

30 Community Pharmacies
Assess and Treat

180 Genotype 1
Sofosbuvir / Ledipasvir
180 Genotype 3
Sofosbuvir / Daclatasvir

30 Community Pharmacies
Refer and Treat

180 Genotype 1
Sofosbuvir / Ledipasvir
180 Genotype 3
Sofosbuvir / Daclatasvir

Objective to Treat 300 patients
**Super.DOTc**

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<thead>
<tr>
<th>Characteristics</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>Intervention</strong></td>
<td>Health services delivery and reconfiguration - Phase 3 Cluster RCT</td>
</tr>
<tr>
<td><strong>Number of sites</strong></td>
<td>6</td>
</tr>
<tr>
<td><strong>Countries involved</strong></td>
<td>1</td>
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<tr>
<td><strong>Sample size</strong></td>
<td>300</td>
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<tr>
<td><strong>Type of statistical analyses</strong></td>
<td>Age: 25-55</td>
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<tr>
<td></td>
<td>Conditions: Hep C infection</td>
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<td>Baseline severity: 40% and prevalent</td>
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<td><strong>Duration of trial</strong></td>
<td>18 months</td>
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<td><strong>Primary outcome</strong></td>
<td>Sustained viral response rate</td>
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**Scores:**

(Shows median if more than one score was entered)

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Utilising Local Strengths

Assessment and Treatment

HCV Antibody Positive → PCR Test Performed → Liver Function Assessed
Resilience and Determination

Epitope and E-rapid

• We will treat 500 PWID in two years
• Which is projected to reduce chronic HCV prevalence from 29% to 10% (65% reduction)
• This should reduce HCV incidence from 5% to 1.6%
“Well, sure, it looks complicated...”

Questions?
The future of HCV therapy is in the community
Delivered by those already seeing the people affected

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