

Multi-disciplinary approach to the investigation of an outbreak of acute hepatitis C amongst a hard to reach population of homeless PWID

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Overview

- Background information about NI
- Description of the outbreak
- Control measures
- Next steps



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Northern Ireland

Population of approx. 1.8 million- 3% of UK pop
 In 2011 census- 98% white ethnicity
 96% born in UK or RoI



The UK population was estimated to be 64.6 million according to the 2014 mid-year estimate. Eighty-four per cent (54.3 million) live in England, eight per cent (5.3 million) in Scotland, five per cent (3.1 million) in Wales and three per cent (1.8 million) in Northern Ireland.



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Claimant rate by constituency in March 2017
 Library residence-based claimant rate: % of economically active population aged 16-64 claiming JSA or claiming Universal Credit and required to seek work, expressed as quintile groups (20% bands)

UK Website Of The Year

Hi 17°C | Lo 8°C Belfast | WEATHER

Belfast Telegraph

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Homelessness doubled since 2000 in Northern Ireland

Good Friday Agreement
 10 April 1998

The Good Friday Agreement brought to an end the 28 years of sectarian conflict in Northern Ireland known as 'The Troubles'. It was ratified in a referendum in May 1998. The agreement set up a power sharing assembly to govern Northern Ireland by cross-community consent. The deal proved difficult to implement and was amended by the St Andrew's Agreement in 2006.

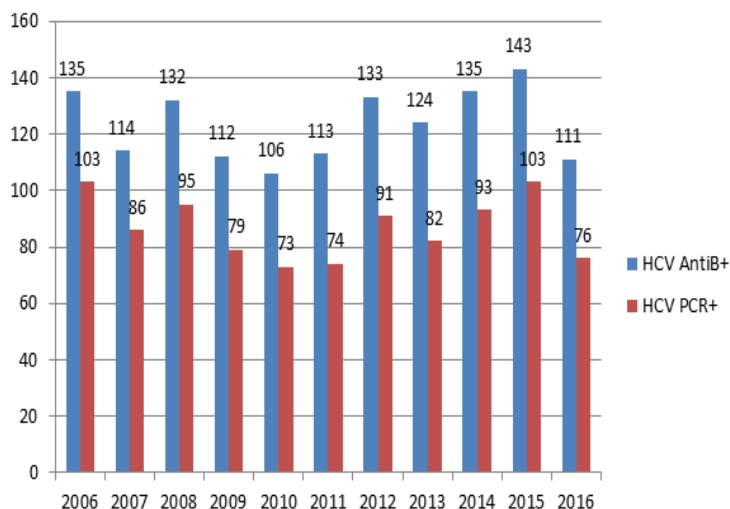
Photo: British Prime Minister Tony Blair and Irish Taoiseach Bertie Ahern sign the Good Friday Agreement (Press Association)

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Number of laboratory confirmed cases of HCV PCR positive cases 2006-2016



Data source:- Regional Virology Labs/PHA 2015

Unlinked Anonymous Survey in PWID

	Northern Ireland (%)	England (%)
Anti-HCV prevalence	27	52
Anti-HBc prevalence	6.5	14
Anti-HIV prevalence	0.65	1
Hepatitis B vaccine	84	75
% aware of their HCV infection	58	53
Injection site infection	37	32
Level of direct sharing	17	17
Level of sharing (direct and indirect)	31	38

Description of the Outbreak

3 cases of acute hepatitis C diagnosed by virology within 1 week July-Aug 2016

All homeless PWID in large NI city

Homeless nursing team with PHA identified 12 injecting contacts of the cases for:

- Education about BBV's and harm reduction
- Injecting pack provision
- Hep B vaccine
- Blood Borne Virus testing



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Case Definition

Confirmed case: Hepatitis C infection on venous blood sample in PWID currently or previously living in or contact with homeless hostels in City X since July 2016

Probable case: Hepatitis C infection on DBS (Dried Blood Spot) in PWID currently or previously living in or contact with homeless hostels in City X since July 2016

Sub-definitions:

Acute: Evidence of active infection with negative test within 6 months of first positive test

Chronic: Evidence of active infection with 2 positive tests at least 3 months apart

Unspecified: where unable to identify acute/chronic but has evidence of active infection

Likely recent acquisition- Started injecting drugs within past 12 months or previous negative within past 12 months



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1st round of screening Aug- Sept 2016

12 tested

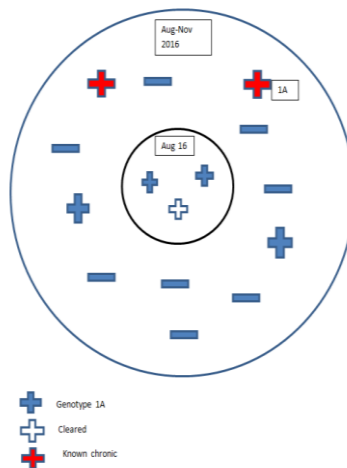
4 positive (25%)

Of which 2 known chronic, 2 unknown time of acquisition-not recent

All genotype 1A except one chronic genotype 1

One cleared

1 further cases identified who meet case definition



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2nd round of screening Nov 2016-Feb 2017

32 people tested

18 positive (56%)

4 more of the original 12 tested now positive despite interventions



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3rd Round of screening March-date

57 tested of which 28 positive (49%)

23 Confirmed:

- Acute- 8
- Chronic-3
- Unspecified-12 (of which 5 recent)

- **5 Probable**
- Acute- 1
- Unspecified- 4 (of which 1 recent)



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The cases

20 males and 8 females

Average age- 29 years

Age range- 19-46 years

Genotype:

- 1: 17 (of which 9 confirmed 1A) 61%
- 3: 3 (of which 1 is 3A) 11%

Awaiting genotype- 7

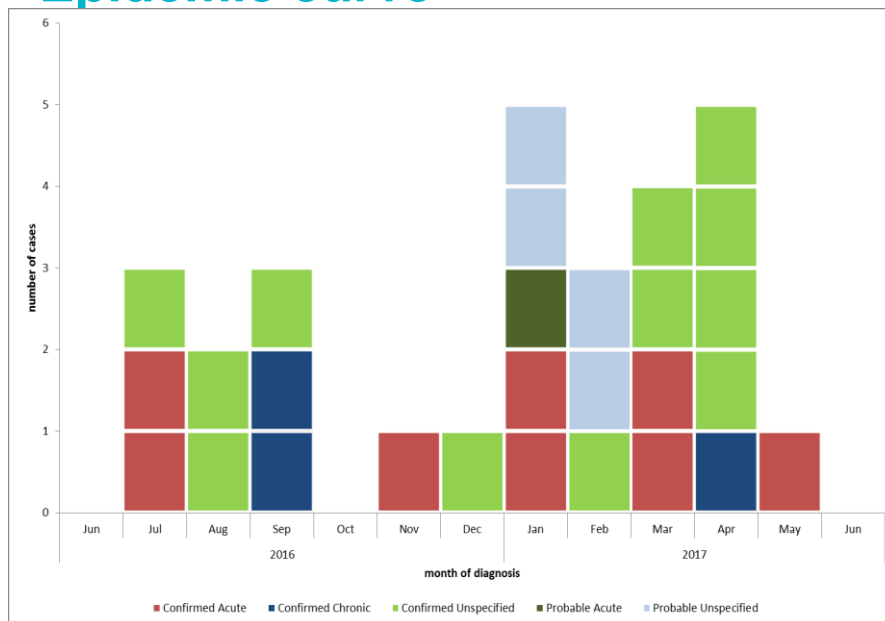
2 have cleared (7%)

6 of the newly identified cases are now chronic

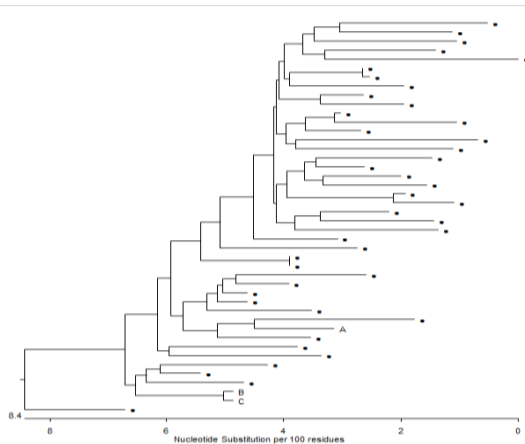


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Epidemic curve



Phylogenetics



3 distinct lineages

Two different 1A lineages (B and C identical and A different)

One 3A lineage

-More than one type of hep C spreading in this cohort

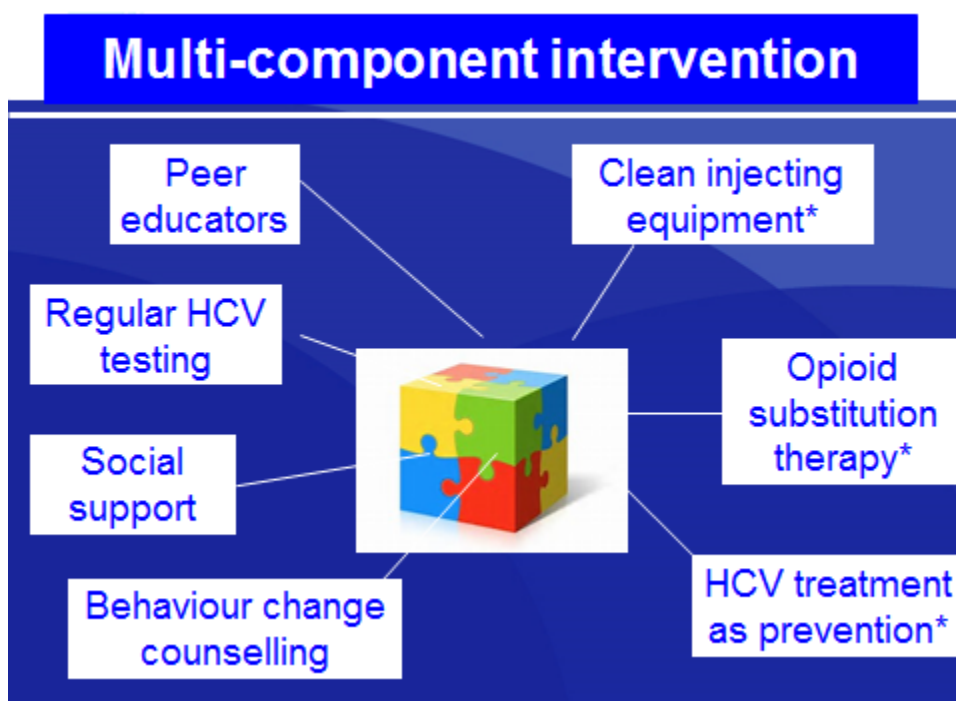
What we know about the cohort:

Intelligence from the homeless team:

- Young
- Recently started injecting- inexperienced
- Group injecting practice
- Being injected by others
- Mainly injecting heroin
- May not share needles but share other injecting equipment

Unique and vulnerable group

- Difficulty accessing services
- Not registered with General Practitioner
- Choose not to engage with mainstream services/pathways
- Live between addresses or have no fixed abode
- Very difficult to locate for repeat testing



Multi – agency approach

- A number of Key stakeholders are involved
- Public Health Agency Northern Ireland (PHA)– Health Protection, Health Improvement
- Hospital Trust - Homeless nursing team, community addiction service, mental health team and hepatology service
- General Practitioner
- Voluntary Service Sector - Extern

Control Measures

Outbreak Control Team formed

Close working with homeless team/ drug outreach team and PHA

Individual and group advice to anyone in cohort

Training on smoking heroin and foil provision

Provision of injecting packs extended to hostel staff

Sharps bins in hostels for safe disposal

Hepatitis B vaccines

Referral for assessment by drug treatment team



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Education

- General education sessions about BBV's
- 1:1 education sessions from a number of Key agencies – improving injecting practice, avoid sharing works (water, filters, cookers or spoons)
- Access to needle exchange – injecting packs, foil and naloxone



Control measures 2

Dry blood spot testing by homeless team

Repeat testing every 3 months for those in cohort who are negative but still at risk

Second sample 3 months after first positive to confirm chronicity

All chronic cases referred to hepatology for consideration for treatment

Posters and wallet cards to raise awareness

Letter to clinicians re testing




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Warning: Increase in Hepatitis C infection in people who inject drugs in Northern Ireland

Hepatitis C is a virus that can cause serious liver damage and can lead to years of ill health. It is spread mainly by blood, so people who share works (any injecting equipment) are at the highest risk. Used works may look clean but an invisible trace of blood can still carry Hep C.


Those infected may not show any symptoms but can still pass the virus on. There is no vaccine to protect against this infection.



Reduce the risk

- Use NEW, sterile works for EVERY injection.
- NEVER share or pass on works (eg needles, syringes, spoons, water, filters).
- Get sterile works from the Needle and Syringe Exchange Scheme.
- Get tested for Hep C – you can now get a finger prick test. Talk to your GP, Community Addiction Team or Low Threshold Service.


Find these services at pha.site/drugsni




Reduce the risk


- Use NEW, sterile works for EVERY injection.
- NEVER share or pass on works (eg needles, syringes, spoons, water, filters).
- Get sterile works from the Needle and Syringe Exchange Scheme.
- Practise safe sex by always using a condom.
- Get tested for Hep C – you can now get a finger prick test. Talk to your GP, Community Addiction Team or Low Threshold Service.

Find these services at pha.site/drugsni





www.publichealth.hscni.net



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Next steps

Complete survey of cohort to gain more info on risk behaviours to target interventions

Aiming to set up service for those hep C positive in cohort for swift access to substitute prescribing and hepatitis C treatment as prevention

Other possible factors associated with outbreak

Psychoactive Substances Act 2016 made “legal highs” illegal in UK from May 2016
 Has this led young people to turn to heroin?
 Price of heroin currently low in NI
 People in cohort may have accommodation but attend hostels to obtain heroin

Summary

Highlights needs in PWID particularly new/
inexperienced users

Change in injecting practice leading to
outbreaks

Frequent testing important to identify outbreak

Multi-disciplinary working vital

Take services to the clients

Very challenging to continue to engage clients



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References

Shooting Up. Infections among people who injected drugs in the UK, 2015 .
An update: November 2016 PHE

Acknowledgments

This presentation is given on behalf of the outbreak control team and we gratefully acknowledge everyone in the outbreak team and the voluntary and statutory section teams who have been working with the OCT to control the outbreak



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Questions?

**If the Drugs
Don't Kill You
The Needle Might!**



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