

HIV in Glasgow

Responding to an Outbreak

A special bulletin
to commemorate
World AIDS Day 2018



A national resource of expertise on drug issues

World AIDS Day is an opportunity for people worldwide to unite in the fight against HIV, to show support for people living with HIV, and to commemorate those who have died from an AIDS-related illness.





Contents

Meeting the Challenges of HIV	4
HIV Infection in Scotland - Quarterly Report	5
How has Glasgow Responded to an Outbreak of HIV among People who Inject Drugs	6
Research Project Posters on the HIV Outbreak	9
Video Interviews with Staff Involved in Outbreak	15
Feedback Sought on Updated 'HIV - What Staff Need to Know' Booklet	17
Waverley Care - Taking Care into the Streets	18
Free One Day Training Courses on 'Sex, Drugs and Blood Borne Viruses'	19

Meeting the Challenges of HIV



Adrienne Hannah, who heads Scottish Drugs Forum's Harm Reduction, Blood Borne Virus (BBV) and Sexual Health Team, describes the importance of testing and reflects on the role of celebration and inspiration in meeting the challenges of HIV.

HIV has been a huge challenge to humanity and has forced the global community to confront some of its fears and its prejudices.

It has caused huge suffering, disproportionately to people who are poor or who are otherwise marginalised, but it has also inspired hope and brave action by individuals and communities and a huge effort, not least on the part of people involved in medical science.

Over four decades the challenge of HIV has been met and transformed by many factors including huge cultural changes and the development of effective treatment. It would seem incredible to people facing the AIDS epidemic of the 1980s that we would now regard HIV as a manageable condition which, given treatment of perhaps a single pill a day, need not limit your life expectancy and that participating in treatment can mean that you are no longer infectious to others.

Here in Scotland, the principle challenge that remains is ensuring that people are diagnosed early enough to ensure they maximise the impact of their treatment and can hopefully reduce the risk of infecting anyone else. We can begin to hope that we can contain and eventually eliminate HIV.

The theme of this World's AIDS Day 2018 is Know Your Status. If we are to know our status we MUST be tested and tested regularly – every three months if we have continued to be exposed to risk.

To encourage people who have been exposed to risk of infection to get tested, we have to make sure people know that HIV is a manageable condition which need not limit your life expectancy, that participating in treatment can mean that you are no longer infectious and how easy testing is. Also we need to ensure testing is accessible and ensure people get their results, the information they need and the treatment they require if they are positive. This is an established way of working with men who have sex with men.

For people who inject drugs there is some way to go; although great strides have been made in Glasgow with people involved in the city centre street drugs scene. The rest of Scotland could learn much from this work. In this special bulletin we describe and explore some of the innovation that has been made in addressing testing and wider issues for this group – to celebrate what has been achieved and to inspire others to action...

celebration and inspiration continue to be key to addressing the challenges of HIV.

HIV Infection in Scotland: Quarterley Report

TABLE 6: Newly diagnosed HIV infections in Scotland by year of report, exposure category and number recently infected*; to 30 September 2018.

Exposure category	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Men who have sex with men (MSM)	132	129	138	128	124	118	131 (45)	86 (17)	115 (30)	40 (14)
Sexual intercourse between men and women	139	117	113	91	102	87	62 (*)	73 (12)	68 (11)	37 (7)
People who inject drugs (PWID)	12	17	14	12	17	18	52 (14)	32 (*)	35 (*)	10 (*)
Other	*	*	*	*	*	*	*	*	*	*
Not Known	*	*	*	*	*	*	*	7 (0)	6 (0)	52 (*)
Scotland	291	267	270	238	250	230	253 (66)	199 (35)	228 (52)	141 (28)

* The number of recent infections are given in parentheses. The data to the end of September 2018 are provisional. Note that new diagnoses are tested for recency using the avidity antibody test; this is performed on new diagnoses when a sample is available.

The latest HIV surveillance report, (published 27 November 2018), provides a summary of HIV diagnoses data in Scotland to the end of September 2018.

By this date, HIV-antibody positive test results for 213 individuals not previously recorded as HIV-positive were received from NHS Scotland laboratories.

It is estimated that there are 5,265 individuals living in Scotland who have been diagnosed HIV-positive.

Attendance is high with 4,734 HIV-infected individuals currently attending specialist services for monitoring and treatment.

Across Scotland, 98% of individuals attending for monitoring are receiving anti-retroviral therapy.



Further Reading

[Read the full HIV Infection in Scotland: Quarterly Report to 30 September 2018](#)

How has Glasgow responded to an Outbreak of HIV among People Who Inject Drugs?

Keith Alcorn - writing for aidsmap.com - provides an insightful and considered explanation of what action has been taken in the city to attempt to bring the outbreak under control, alongside providing further academic reading on the subject matter.

Intensive efforts to reach people who inject drugs who have acquired HIV in a recent transmission outbreak in the city have resulted in high levels of antiretroviral treatment and viral suppression in a predominantly homeless population.

This was reported in a poster discussion session by clinicians and nurse specialists from Glasgow's Brownlee Centre for Infectious Diseases dedicated to the city's response to the outbreak at the [International Congress on Drug Therapy in HIV Infection \(HIV Glasgow 2018\)](#) at the end of October.

An [HIV outbreak among people who inject drugs in Glasgow was detected in 2015](#). Virus sequencing by a team at the University of Edinburgh has established that 119 people diagnosed with HIV in Scotland were infected with a subtype C strain of HIV that had two mutations conferring resistance to non-nucleoside reverse transcriptase inhibitors. This viral strain was first detected in a person diagnosed with HIV in 2005. Transmission began to accelerate in 2014 and in 2016; around 100 very closely related viruses were identified in recently diagnosed drug users, indicating very rapid transmission.

Professor Andrew Leigh-Brown of the University of Edinburgh said that the outbreak was one of the largest of recent years among people who inject drugs. The Glasgow outbreak was on [a similar scale to those in the US state of Indiana and in Athens](#), but unlike those outbreaks, it occurred in the face of intensive harm reduction activity in the city.

After the outbreak was detected, engaging people in care and encouraging them to start antiretroviral therapy (ART) was a priority. Healthcare workers in Glasgow faced several challenges: many of the drug users diagnosed with HIV were homeless and spent their time in the east end of Glasgow, far from the city's main HIV clinic at Gartnavel Hospital on the western outskirts of the city. A new model of care was needed, Erica Peters of the Brownlee Centre told the symposium.

Instead of offering hospital-based appointments and antiretroviral dispensing, consultants and clinical nurse specialists went out to provide clinical services at homeless healthcare facilities in the city. Nurses have also gone to areas known as public injecting sites, as well as homeless shelters and areas known for rough sleeping, to follow up patients. As a result, two-thirds of people who inject drugs diagnosed with HIV have attended a consultant-led bloodborne viruses clinic in a health facility for the homeless.

Antiretroviral drug dispensing was carried out through community pharmacies. Seventy-two people received antiretrovirals in this way, dispensed alongside opioid substitution therapy and by July 2018, 43 people were still receiving antiretrovirals through a community pharmacy. Overall, 102 people who inject drugs diagnosed since 2014 have ever received antiretrovirals, reported Rebecca Metcalfe of the Brownlee Centre. Ninety-five per cent are currently on treatment and 86.5% of all those diagnosed have an undetectable viral load.



As well as being critical for individual health, rapid ART initiation also has the potential to reduce HIV transmission. In September 2015 guidance on treatment initiation changed, to recommend treatment regardless of CD4 cell count. A comparison of the speed of ART initiation between men who have sex with men (MSM) and people who inject drugs diagnosed with HIV in Glasgow with CD4 counts over 350 cells/mm³ at diagnosis showed that it took five times as long for drug users to start treatment compared to MSM after September 2015.

Prior to September 2015, it took MSM 154 days to start treatment, whereas it took a median of 385 days for people who inject drugs to start treatment.

After September 2015 the interval between diagnosis and treatment initiation in MSM fell to 22 days, an 86% reduction. In people who inject drugs the median interval fell from 385 days to 111 days, a 71% reduction.

The outreach clinic has also provided direct-acting antiviral treatment for people with hepatitis C co-infection through community pharmacies, in the same way as for antiretroviral drugs. Seventy-six people were diagnosed with chronic hepatitis C virus (HCV) infection. Of these, 26 have already begun treatment and 50 await treatment. Of the 18 people who have completed treatment, 17 had an undetectable HCV RNA at the end of treatment and in one case, treated failed. One person has subsequently been reinfected with HCV.



Further Reading

Metcalfe R et al. An outbreak of HIV; model adaptation leading to successful clinical outcomes. International Congress on Drug Therapy in HIV Infection (HIV Glasgow), Glasgow, 2018, abstract P078.

Metcalfe R et al. Is early antiretroviral therapy (ART) achievable in people who inject drugs (PWIDs) diagnosed with HIV? International Congress on Drug Therapy in HIV Infection (HIV Glasgow), Glasgow, 2018, abstract P079.

Black H et al. Successful treatment of hepatitis C in a HIV co-infected underserved people who inject drugs (PWID) population in Glasgow, UK. International Congress on Drug Therapy in HIV Infection (HIV Glasgow), Glasgow, 2018, abstract P082.

Grover C et al. Nurses at the forefront: a new service model for people who inject drugs (PWID) in Glasgow. International Congress on Drug Therapy in HIV Infection (HIV Glasgow), Glasgow, 2018, abstract P081.

O'Hara R et al. Providing HIV antiretrovirals (ARVs) via community pharmacies alongside opiate replacement therapy (ORT) during an HIV outbreak among people who inject drugs (PWIDs). International Congress on Drug Therapy in HIV Infection (HIV Glasgow), Glasgow, 2018, abstract P080.

[View the abstracts in the Journal of the International AIDS Society abstract supplement.](#)



Research Project Posters on the HIV Outbreak



Using real-time phylodynamic analysis to assess and guide public health interventions in an HIV outbreak among people who inject drugs in Scotland



Manon Ragonnet-Cronin^{1,2}, Amanda Bradley-Stewart³, Rebecca Metcalfe^{4,5}, Rory Gunson³, Erica Peters⁴, Andrew McAuley^{5,7}, Catriona Milosevic⁶ and Andrew Leigh Brown¹

background

- People who inject drugs (PWID) are at high risk for HIV acquisition if they share equipment or have unprotected sex
- **Harm reduction** in the UK and the rest of Europe dramatically decreased incidence in this group in the 1980s
- Recently a number of HIV outbreaks among PWID have been reported in Europe^{1,2} linked to the economic recession, funding cuts, homelessness and the injection of new psychoactive substances
- In 2015 a rise of **subtype C HIV** diagnoses with two **drug resistant mutations** among PWID was noted in Scotland
- All 104 sequences were closely linked (≤ 0.01 substitutions per site), had both mutations and mean transmission intervals were < 6 months³
- The utility of phylogenetic analysis to detect clusters of HIV infections and support the subsequent public health response has been demonstrated⁴
- Given the scale of the current outbreak, we want to use molecular epidemiology to help guide public health interventions during an ongoing outbreak⁵ with a particular focus on contact tracing investigations

methods

Figure 1: Source Attribution method

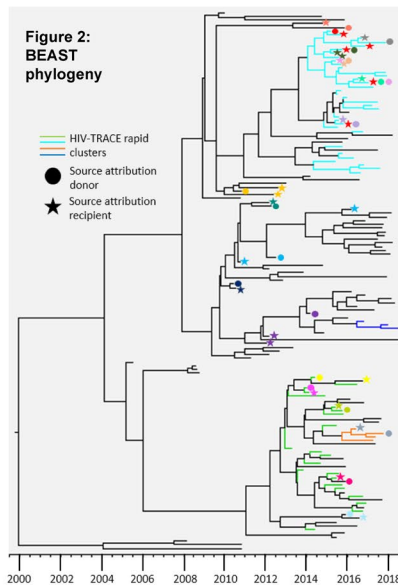


- Phylogenetic analysis of viral sequences provides an alternative and independent route to reconstructing transmission networks
- The West of Scotland specialist virology centre sequences *pol* for all new HIV diagnoses
- The **National Health Service portal** collects clinical data, including
 - date of last negative test, CD4 count and avidity result
- We time-resolved the phylogeny using BEAST⁶
- Source attribution methods estimate the probability of a direct transmission event between two individuals based on the time-resolved phylogeny, estimated dates of infection, prevalence and incidence⁷ (Figure 1)
- HIV-TRACE can be used to rapidly find clusters based on a genetic distance threshold⁸ and is being used by CDC to detect transmission clusters as they arise⁹

results

1. Time resolved phylogeny of the outbreak

Figure 2: BEAST phylogeny



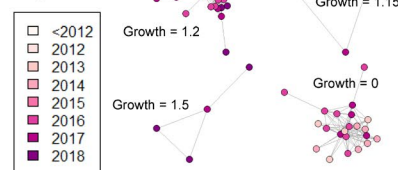
- Single cluster of 145 sequences with both mutations, all from Scotland (Figure 2)
- Origin of cluster is in 2000, first diagnosis in 2005, accelerated transmission after 2014
- Mean genetic distance $< 1\%$
- 3 subclusters, all with recent transmissions
- The coloured branches indicate clusters selected by HIV-TRACE⁸
 - HIV-TRACE does not enforce monophyly
- The circles and stars in the phylogeny indicate the most probable transmission pairs (donors and recipients) based on the Source Attribution method⁷

2. Source Attribution⁷

- We are displaying transmission events $> 70\%$ probability of being direct
- The timing of each transmission event can be estimated from the phylogeny
- Source Attribution can be used to find individuals associated with the highest number of transmissions over time
 - Here, 25% of individuals were responsible for $> 50\%$ of onward transmissions
- Individuals with recent onward transmissions can be contacted to ensure they are on suppressive treatment and their partners are on pre-exposure prophylaxis (PreP) to interrupt further transmission

3. HIV-TRACE⁸

Figure 3: Recent & Rapid clusters



- We used HIV-TRACE to identify clusters with rapid (≤ 0.05 substitutions per site) transmissions, and calculated their recent (2017/2018) growth⁹:
 - $Growth = \frac{\Delta N}{\Delta t}$ (Figure 3)
- Clusters with recent growth are the most likely to keep growing⁹
- One large cluster had high growth in 2016 but not in 2017/2018
- From a public health perspective, clusters with rapid and recent transmission are termed "priority clusters"⁵
- As such, they serve as a focal point for contact tracing to collect information about partner contacts and social network contacts (to determine the larger risk network)
- This group can then be tested, treated if positive, or provided with appropriate post-exposure prophylaxis

conclusions

- 145 linked HIV cases among PWID in Scotland between 2005 and 2018, the biggest outbreak since the 1980s
- Two different methods for identifying priority cases for public health interventions
- There is some overlap between individuals prioritized by each method but they are calculating different things (probable direct transmissions versus recent cluster growth)
- **LIMITATIONS**
 - Neither method has been tested/evaluated in known transmission chains
 - SA model relies on many parameters (incidence, prevalence, CD4 counts)
- Both methods can be used to:
 - Select specific individuals for enhanced public health interventions (viral suppression, contact tracing, partner notification, partner testing, treatment/HIV PreP for partners)
 - Determine the risk factors for transmission and thus guide public health interventions towards subpopulations at highest risk of transmission/infection
- **ETHICS**
 - The ethics and acceptability of these approaches still need to be ascertained among the HIV+ community

references

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3. Ragonnet-Cronin M et al. Recent and Rapid Transmission of HIV Among People Who Inject Drugs in Scotland Revealed Through Phylogenetic Analysis. *J Infect Dis* 2018
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6. Drummond AJ & Rambaut A. BEAST: Bayesian evolutionary analysis by sampling trees. *BMC Evol Biol* 2007
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9. Wertheim JO et al. Growth of HIV-1 Molecular Transmission Clusters in New York City. *J Infect Dis* 2018.

acknowledgements

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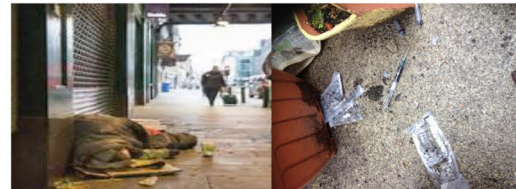
An outbreak of HIV; model adaptation leading to successful clinical outcomes

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Background

Since November 2014, Glasgow has witnessed a significant rise in HIV diagnoses amongst homeless PWIDs, almost exclusively using heroin and cocaine. In Glasgow, injecting equipment provision (IEP) is free and provided at multiple sites across the city alongside a comprehensive and accessible addictions service providing free opiate replacement therapy (ORT). The existing model of hospital based HIV care is not suitable for this cohort and a new service model taking the treatment and care to the patient to support treatment as prevention has been designed.

Methods



Changes to care model described below. We reviewed the cohort to describe the epidemic and measured effectiveness of the new service with clinical outcome measures.

Previous care pathway

- Hospital based appointments
- Discharge after 3 DNA
- Clinical nurse specialist could make occasional visits out with the hospital setting
- All ARV dispensed via single hospital pharmacy or home delivery (requires stable address and adherence)
- Existing BBV clinics in prison service, consultant input monthly

New care pathway

- Drop in and fixed consultant or nurse specialist appointments in homeless healthcare facility in city centre (walking distance for most)
- Ability to provide sexual health, contraception, hepatitis C treatment (see poster #P082), skin and soft tissues infection and other serious bacterial infection management.
- Regular case review of those not engaging in care with senior Addiction colleagues to access multidisciplinary teams.
- Clinical nurse specialists (CNS) delivering care to patients in non-healthcare settings (see poster #P081)
- ARV linked to community pharmacy ORT prescriptions (daily dispensing) or delivered to patients by CNS (see poster # P080)
- Weekly linking with prison healthcare to review HIV positive inmates including starting ARV, blood monitoring, hepatitis C treatment and liberation dates.

Results

- 133 PWIDs have been diagnosed with HIV, of whom 119 are confirmed Clade C virus with primary NNRTI mutations, 12 Clade B and 2 not known due to low viral load.
- Mean current age 40.
- 48/133 (36%) are female.
- 38/124 (31%) had avidity <40% indicating recent infection
- Avidity >40% indicating non primary infection mean baseline CD4 count 387 cells/cmm (CD4% 25%).
- 61/83 (73.4%) have reported sexual contacts alongside a history of IDU
- 20/133 (15%) are deceased, 4 moved
- 69/104 (66%) have attended the consultant led BBV clinic in homeless health facility
- 102/104 (94.2%) have ever received ART
- 99/104 (95.1%) on a current prescription, via hospital or community based pharmacy care.
- 90/104 (86.5%) had an HIV viral load <200 copies/ml at last check.

Conclusion

Despite comprehensive IEP and addictions services, HIV has spread rapidly amongst homeless PWIDs in Glasgow. At time of diagnosis, there is a mix of acute and chronic infections and females are disproportionately affected. Transmission route is both sexual and intravenous. Traditional service models are not suitable for this group and we have developed a holistic approach resulting in high quality care. The adaptation of clinical HIV services is vital to improve health outcomes and reduce onward transmission to control the epidemic in this highly complex and multiply disadvantaged group

Acknowledgements: Revathy Raajaravi, Information Co-ordinator

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Is early antiretroviral therapy (ART) achievable in People Who Inject Drugs (PWIDs) diagnosed with HIV?

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Background

Evidence for antiretroviral therapy (ART) as HIV treatment as prevention (TasP) in parenteral transmission is limited with modelling studies suggesting scale up of ART in this population plays a smaller role in reducing onward transmission than reducing injecting risk. However, early ART initiation has significant individual health benefits with international guidance recommending ART, regardless of CD4 count, from September 2015. Delay in ART initiation to people who inject drugs (PWID) may be due to perceived or actual poor engagement in care and ART adherence. Since the transition to providing early ART worldwide, there is a lack of real world evidence on whether this is achievable in PWID.

The change in international guidance in September 2015 coincided with TasP being implemented as an intervention to tackle an ongoing HIV outbreak amongst PWID in Glasgow City, Scotland.

Methods

We sought to compare time from HIV diagnosis to ART initiation in PWID with another risk group, men who have sex with men (MSM), before and after September 2015.

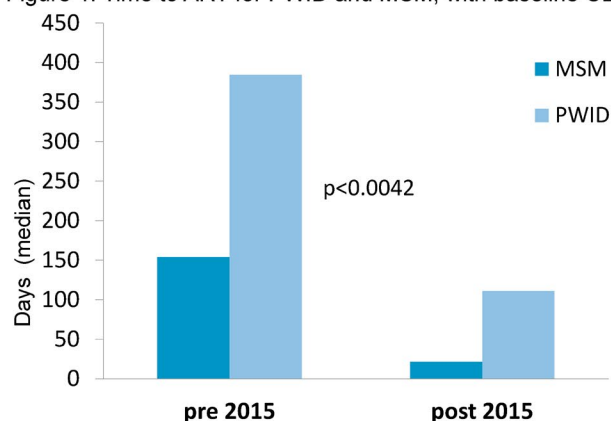
A clinical HIV database was interrogated to identify all those diagnosed with HIV, in Glasgow, from 1 June 2012 – 31 May 2018, with parenteral drug use or MSM identified as a risk factor for HIV acquisition, and who attended our service for first contact with HIV services. Data were collected on basic demographics, date of diagnosis, date of ART start and CD4 count at diagnosis. Analysis focussed on those with baseline CD4 count over 350 cells/cmm, in each group.

Results

Table 1. Basic demographics of study population

	PWID	PWID	MSM	MSM
	Pre Sept 2015	Post Sept 2015	Pre Sept 2015	Post Sept 2015
Total	32	45	72	38
Gender (Male)	23/32 (71.8%)	31/45 (68.9%)	72/72 (100%)	38/38 (100%)
Mean age at diagnosis (years)	38	39	34	35
Mean CD4 count at diagnosis (cells/cmm)	615.6	563.9	614.7	572.1

Figure 1. Time to ART for PWID and MSM, with baseline CD4 counts over 350 cells/cmm0



The median time from HIV diagnosis to ART initiation in MSM was 154 days (IQR 507) before September 2015 and 22 days (IQR 12) after the change in international guidance – **an 86% reduction**.

In PWID, median time from HIV diagnosis to ART initiation before September 2015 was **more than twice as long** than for MSM at 385 days (IQR 569). After the change in guidance, median time to ART initiation for PWID was 111 days (IQR 189) - **a 71% reduction** in time to ART initiation but **more than five times longer** than that the time observed for MSM.

Conclusion

Within this cohort, the newly diagnosed PWID and MSM risk groups are similar in terms of baseline CD4 count. After September 2015, an 86% reduction in time from diagnosis to ART initiation was observed in MSM, compared to 71% reduction in the PWID group, with a much larger individual variation seen in the PWID group. These results demonstrate that early ART is achievable in this complex group but inequity remains between PWID and MSM in early ART provision, despite TasP being implemented as an intervention during an outbreak of HIV amongst PWID in Glasgow City. This is likely due to the complexity of managing HIV in PWID within the traditional HIV service model, which requires more resource and the development of innovative models of HIV care to deliver early ART to this multiply disadvantaged group.

Providing HIV Antiretrovirals (ARVs) via community pharmacies alongside Opiate Replacement Therapy (ORT) during an HIV outbreak amongst People Who Inject Drugs (PWIDs)

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Background

There is an ongoing outbreak of HIV among PWIDs in Glasgow. Within this cohort, ongoing substance misuse and homelessness are common.

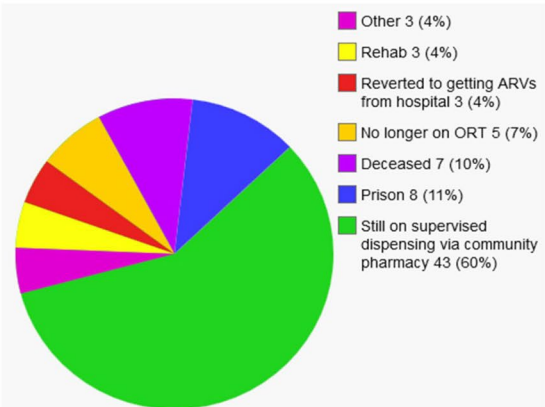
This cohort has difficulties engaging with the traditional hospital based HIV service and therefore since July 2016, ARV medication has been provided via community pharmacies alongside ORT, supervised where required.

Close working between HIV hospital pharmacy and community pharmacy development team (CPDT) looked to improve patient access to medication, adherence to ARV with an aim to achieve both individual patient benefits and also to support one of the Public Health approaches to the outbreak i.e. treatment as prevention.

Results

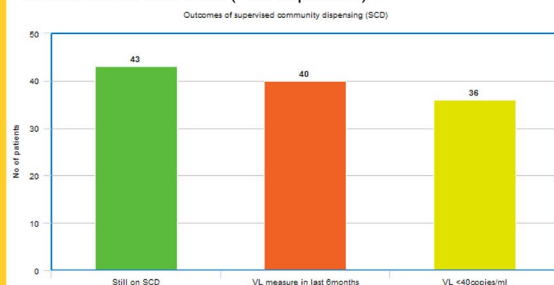
There are 42 community pharmacies in the Greater Glasgow area partaking the supervised provision of ARVs alongside ORT.

72 patients enrolled on this model of ARV provision, however 29 (40%) no longer on community dispensing of ARVs as of the end of July 2018.

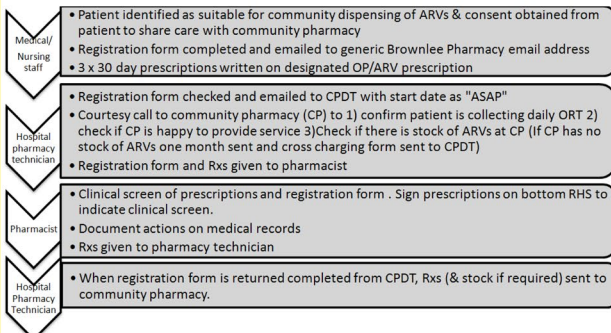


43 patients still engaged with supervised community dispensing (SCD) of ARVs.

93% of those have had a viral load checked in the last 6 months
90% of those who tested in the last 6 months have an undetectable viral load (<40 copies/ml).



Processes and method



The existing pharmacy and HIV clinical databases were interrogated to identify patients who have received ARVs via community dispensing from 2 years of data to the end of July 2018.

These patients records were then scrutinised to see if they were still using this model of care to receive ARV.

Patients who remained on community dispensing of ARVs were then looked at to see when last VL was taken and if the result was <40copies/ml.

Reasons were documented for those who no longer remained on community dispensing of ARVs.

NHS Greater Glasgow & Clyde
Community Pharmacy Provision of ANTIRETROVIRALS (ARV) or HIVART (OP/ARV)

Section 1 - To be completed by Prescriber/Dispenser. Please complete:

Prescriber/Dispenser:

Address:

Postcode:

Telephone:

Section 2 - To be completed by Community Pharmacy Development Team

Date of initiation of dispensing:

Community Pharmacy Development Team:

Emergency Contact Details

Community Pharmacy Development Team:

Community Pharmacy Development Team:

Community Pharmacy Development Team:

Conclusion

In the midst of an HIV epidemic we have initiated a new model of pharmacy ARV provision creating links between hospital and community pharmacies, to benefit people with complex needs.

The high level of uptake of this service suggests feasibility and acceptability within this group. High level of viral load suppression indicates high levels of adherence but we plan to prospectively monitor adherence of ARVs to this method of ARV provision.

NURSES AT THE FOREFRONT; A new service model for people who inject drugs (PWIDs) in Glasgow

Glover, Claire ¹; Curtis, Stewart ²; Kirkwood, Stuart ¹; McGinness, Patricia ¹; Anderson, Patricia ¹
 Gartnavel Hospital, Glasgow Brownlee Centre Glasgow UK (1)
 Hunter Street Homeless Health Centre Community Addictions Team Glasgow UK (2)

Background

There is an ongoing outbreak of HIV amongst homeless PWIDs in Glasgow –133 to Aug 2018. The traditional model of care for people living with HIV is a centralised hospital based service, which can be a barrier to **accessing** care and can impact on engagement in care and adherence to antiretrovirals (ARVs). Hospital based Blood Borne Virus (BBV) clinical nurse specialists (CNS) have developed a new outreach model of care for this group.

Materials and Methods

A review of electronic records of 104 in current cohort (excluding deaths, those that had moved and those without more than 3 months clinical information) was conducted to achieve the following aims:

1. Describe the innovative nursing approaches and interventions implemented to engage with patients and support them into HIV care
2. Illustrate the effectiveness of the role of the CNS in the complex needs of these patients using surrogate markers.

Results

An outreach nursing model was initiated in November 2015. This service has adapted to suit their multiple complex needs by providing the following:

1. A weekly drop-in nurse led clinic within the Homeless Health Centre, offering treatment of HIV, hepatitis C (HCV) and hepatitis B (HBV)
2. Working with pharmacies to support ARVs dispensed via community pharmacies alongside opiate replacement therapy (ORT)
3. Liaison with other NHS teams (addictions, sexual health, GPs, inpatient specialty teams, rehabilitation centres) involved with the cohort
4. Links with social work, prisons and third sector organisations
5. Assertive 'street' outreach actively seeking out patients in the most deprived conditions e.g. rough sleeping and temporary Accommodations
6. Supporting the wider HIV multidisciplinary team

Effectiveness of the service was measured using the following surrogate markers

- 69/104 (66%) of cohort using outreach service
- remaining 35/104 (33%) of cohort exclusively attending hospital care(also supported by outreach nurses)
- 12 additional HIV patients (out with outbreak cohort) attending outreach service
- 99/104 (95%) treated with ARVs, with 41/104 (39%) ARVs via community pharmacy with ORT and 16/104 (15%) ARVs dispensed by CNS(deliver to hostel, community/rehab site, or patient collects in outreach clinic)
- 13 patients commenced on HCV treatment



Typical areas of public injecting sites with used equipment



Assertive outreach, showing CNS with backpacks for their equipment, Homeless Health Centre, Simon Community HUB, all sites where CNS deliver healthcare

Conclusion

People with multiple complex needs require an innovative and flexible model of HIV care. Nurses are integral to outreach work and key in supporting and advocating on behalf of underserved populations. Nurses are highly trained and experienced in communication skills, negotiation skills and compassion, which is essential in supporting this vulnerable group and the many services which they are linked with. Assertive outreach and adapting clinic setting has achieved better links with support services and improved provision and retention of care for Homeless PWIDs in Glasgow.

Successful treatment of Hepatitis C in a HIV co-infected underserved people who inject drugs (PWID) population in Glasgow, UK.

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BACKGROUND

There is an ongoing outbreak of HIV in Glasgow among people who inject drugs (PWIDs). Over 50% are co-infected with hepatitis C virus (HCV). Despite high risk of onward transmission there is a reluctance to treat PWIDs. We have developed a novel approach to engage with this traditionally hard to reach cohort including community pharmacy administration of HCV treatment linked with daily dispensing of opiate substitution therapy (OST) and/or HIV anti-retroviral therapies (ART).

METHODS

- Clinical review of current outbreak cohort.
- Identified HCV RNA positive individuals for assessment and treatment consideration.
- Active drug use was not a contraindication to HCV treatment.
- Out-reach clinic in the homeless additions service provided all care, assessments and HCV treatment alongside HIV care.

RESULTS

Outbreak cohort, N=133 (figure 1)

- 24 excluded (20 deceased and 4 transferred healthboard)
- 72/109 male
- Mean age 40
- 1/109 had previous HCV treatment
- 103/109 (94%) on ART
- 82/103 (75%) with viral suppression (VL <40)
- 78/109 (72%) on OST
 - 74/78 (95%) on ART and 57/78 (73%) with viral suppression

Current patient status (figure 2)

- 50/109 (46%) HCV RNA positive and not treated/planned for treatment.
- 26/109 (24%) treated.
- 33/109 (30%) HCV RNA negative and never treated (self-clearance).

Figure 1: Glasgow PWID HIV outbreak cohort, N=133

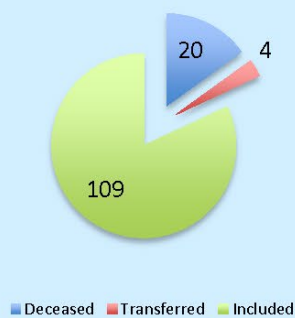


Figure 2: Cohort current patient status

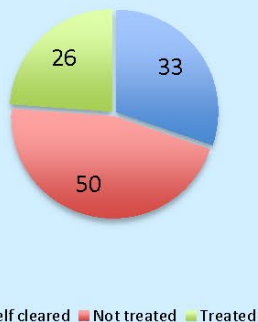


Figure 3: Treatment Outcomes N=18



Treatment Outcomes (Figure 3)

17/18 HCV RNA negative at end of treatment (EOT).

2/18 are now HCV RNA positive

- 1 treatment failure (Patient A)
- 1 re-infection (Patient B).

Patient A (Treatment failure)

- Genotype 1A
- 8 weeks Maviret
- Incarcerated, issues documented regarding taking ART due to lack of confidentiality. Moved to single cell and documented happy to now take ART and HCV treatment. No further concerns documented.
- EOT HCV RNA 34 (log 1.53)
- 3 months post treatment sample insufficient
- 5 months post treatment RNA detected (log 6.21)

Patient B (Re-infection)

- Genotype 1A
- 12 weeks Zepatier commenced June 2017
- Received 8 consecutive weeks, missed 1 week, had further 2 weeks then missed the last 2 weeks.
- 8 week (on treatment) RNA undetectable (<12)
- 2 month post treatment RNA undetectable (<12)
- 5 month post treatment HCV antigen positive and remained
- 10 month post treatment HCV RNA positive (log 3.39). Genotype unknown.

Treatment Numbers (Figure 4)

Exponential increase
4 in 2016
5 in 2017
17 in 2018 so far

Figure 4: HCV treatment



CONCLUSIONS

HCV treatment can be successfully delivered in underserved populations but the care model has to be support engagement. We have shown increasing numbers of patients receiving HCV treatment representing the growing PWID cohort in addition to the superior reach of the out-reach model. Treatment has a high success rate with low re-infection rates to date. This has important public health implications for prevention of onward transmission and reducing future liver disease and related morbidity and mortality.

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Video Interviews with Staff Involved in Outbreak



Lesley Bon, a member of SDF's Harm Reduction, Blood Borne Virus and Sexual Health team was fortunate to be able to discuss with a number of people who are highly involved in Glasgow's response to the current HIV outbreak the various strategies and actions that have been taken to attempt to contain virus, prevent it to from onward transmission, and to treat those who have been affected.

Simply click the links to open the videos in your browser.

Dr Erica Peters, NHS Greater Glasgow and Clyde

Dr Erica Peters is a Consultant in Infectious Diseases and General Medicine for NHS Greater Glasgow and Clyde.

In this video, Erica discusses the implications of treating a highly vulnerable and potentially chaotic population.



<https://youtu.be/Z1RXLgasGTI>

Emma Thomson, Caroline Scade and Lynsey Boyd NHS Greater Glasgow and Clyde



Emma Thomson, Caroline Scade and Lynsey Boyd are Specialist Sexual Health Nurse Advisers for NHS GGC.

Here they discuss contact tracing (partner notification) with people diagnosed with HIV to be able to find others at risk and needing to be tested for HIV.

<https://youtu.be/luPzfdj8vTQ>

Patricia Anderson, NHS Greater Glasgow and Clyde

Patricia Anderson is the Lead Clinical Nurse Specialist for Blood Borne Viruses for NHS Greater Glasgow and Clyde.

In this video, Patricia discusses the specific strategies that are being implemented to support and treat people who have tested positive for HIV.



<https://youtu.be/Xhodqf7Ily0>

Paul Connolly, GDCC and John Campbell, NHS GGC



https://youtu.be/5_qU8woyMM8

In this video we talk to John Campbell, Injecting Equipment Provision (IEP) Manager for NHS GGC and Paul Connolly, IEP Practitioner for Glasgow Drugs Crisis Centre.

Here they discuss the role of IEP in relation to the outbreak, both the challenges and innovations with closure of IEP services and introducing the new IEP van for Glasgow City Centre.

Claire Kofman, Waverley Care

Claire Kofman is Senior Manager for Waverley Care in Glasgow.

In this video she talks about how Waverley care is supporting people affected by the outbreak, and discusses the new outreach service being launched.



<https://youtu.be/MHfvTacatEM>

Feedback Sought on Updated 'HIV - What Staff Need to Know' Booklet

The increase in HIV in people who inject drugs has highlighted the need to raise awareness of HIV amongst this group.

This resource aims to support frontline staff and people who engage with those who use drugs to better understand HIV, including how to support people who may be at risk or who have been diagnosed with HIV.

This booklet is released today in a draft format and we would like to hear views about the contents.

We will be printing this booklet in January 2019. If you have any comments, suggestions or alterations about this booklet please email lesley@sdf.org.uk by 20 December 2018.



[Click here to download the draft booklet](#)



CONTENTS

Introduction	4
What is HIV?	5
How is HIV transmitted?	6
What do HIV tests involve?	7
Signs and Symptoms of HIV	8
Why get treatment?	9
What is treatment?	9
Post Exposure Prophylaxis (PEP)	10
Pre Exposure Prophylaxis (PrEP)	10
Treatment as Prevention (TasP)	11
Undetectable = Untransmittable (U=U)	11
How can I support people at risk?	12-14
Where to get more information?	15

Waverley Care - Taking Care into the Streets

The HIV outbreak among people who use drugs has had radical implications for services. Sometimes tried and tested methods need revisited, and in other cases, new strategies must be implemented.

Waverley Care's Mhairi McKean tells us more.



Waverley Care
making a positive difference

The latest e-bulletin from the SDF arrives on the eve of the 30th Annual World AIDS Day.

Big anniversaries offer the opportunity to reflect on the progress that has been made and, in the case of HIV, that progress is significant.

Today in Scotland, HIV is considered a manageable long-term health condition, with treatments allowing people to live long, healthy lives. However, despite improved medical understanding, the condition continues to disproportionately affect some of the most vulnerable people in our communities.

In recent years, this has been demonstrated clearly by the ongoing HIV outbreak in Glasgow. Since 2015, more than 130 people have had an HIV diagnosis linked to injecting drug use, more than trebling the previous average.

In response to the outbreak, Waverley Care has recently launched a dedicated HIV Street Support Project in the city. The community-based project, funded by the Big Lottery Fund, will provide access to harm reduction education, HIV testing, and intensive one-to-one and peer support.

The population that the project wants to reach faces a complex range of health and social inequalities that affect their health and wellbeing, often leaving them isolated from services that can provide support. This includes issues such as homelessness, addiction and poor mental health. Waverley Care's project will take support directly to people on the street, making it as easy as possible for them to access HIV testing and treatment, along with information and advice to help people access additional support with the challenges they face.

Over the coming months, Waverley Care will be working with colleagues to develop and implement the service. In the meantime, if you would be interested in finding out more about its work, contact Mhairi McKean on 0141 332 2520 or by email mhairi.mckean@waverleycare.org.

Free One Day Training Courses on Sex, Drugs and Blood Borne Viruses

Scottish Drugs Forum are delivering one day courses on sex, drugs and blood borne viruses which are free to attend.

The courses take place on various dates from January to March 2019 at SDF's main office in Glasgow



The training aims to increase workers understanding and knowledge of key issues related to blood borne viruses (BBVs) with a particular emphasis on risks associated with drug use and sexual and reproductive health. The main focus will be on Hepatitis C and HIV and will also include information on Hepatitis B.

Learning Outcomes:

By attending the training, participants will be able to:

- Recall transmission routes of the different BBVs
- Describe harm reduction strategies to prevent the spread of BBVs
- Analyse why people take risks around BBVs
- Recognise the benefits of early BBV diagnosis and accessing treatment.
- Explore attitudes to those living with BBVs
- Recall effective interventions and techniques for working with people who may be living with or at risk of contracting a Blood Borne Virus.

Areas covered will include

- BBV awareness – understanding HIV and Hepatitis B & C: routes of transmission, signs & symptoms, what are the outcomes of BBV infection?
- Harm Reduction and Prevention – how do we get relevant and meaningful prevention messages to those at risk and those living with BBV? Discussion around “Treatment as Prevention”.
- Testing, diagnosis and treatment – understanding the process and challenges of those going through the treatment journey
- Support – for those living with and affected by HIV, Hepatitis B and C
- Dilemmas – around supporting people within residential services
- Referral and signposting pathways – raising awareness of, and establishing links with, local specialist services

[To book a place click here](#) or visit www.sdfworkforcedevelopment.org.uk/

Course name: Sex, Drugs and BBVs

If you would like us to deliver this course in your area or for your service, contact Adrienne Hannah on adrienne@sdf.org.uk or call 0141 221 1175.

HIV EDUCATION EVENT

FOR WORLD AIDS DAY

*Join us to raise awareness of
the HIV outbreak in Glasgow*

FREE lunch
and FREE
raffle!

For frontline
staff, people at
risk or service
users!

INFORMATION STALLS - ALL DAY

Treatments for HIV and Hep C,
Support and Harm Reduction

TESTING AVAILABLE

For HIV and Hepatitis C

HIV OUTBREAK IN GLASGOW

Briefing sessions available

11:30am
and 2pm

INFORMATION ON RECENT RESEARCH

Find out what's new

1:30pm

At Glasgow Drugs Crisis Centre

123 West Street, Glasgow

Wednesday 5th December

Drop in 11am to 2pm

Event finishes at 3pm



Come along on the day, but if possible, please

RSVP: gdcc@turningpointscotland.com

or 0141 420 6969



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