Factors associated with entry into healthcare pathways for hepatitis C among people who inject psychoactive drugs in the United Kingdom (UK).

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Background

People who inject drugs (PWID) typically have high levels of infection with the hepatitis C virus (HCV).

Most will develop chronic infection with a risk of cirrhosis and liver cancer.

The development of very effective antiviral drugs means that diagnosis and entry into a care pathway is increasingly important to reducing hepatitis C related morbidity, and also for reducing transmission (i.e. treatment for prevention).

Factors associated with hepatitis C care pathway uptake – that is having seen a specialist doctor/nurse and being given medication perceived as being related to their hepatitis C - are explored.
The Unlinked Anonymous Monitoring (UAM) Survey of PWID

This survey started in England & Wales in 1990 as a response to the HIV epidemic (+ Northern Ireland since 2002). It uses the Voluntary Unlinked & Anonymous method.

Annual surveys recruit PWID through specialist services (such as needle & syringe programmes and addiction treatment) in around 60 sentinel areas.

Participants provide a biological sample (currently a dried blood spot) and self-complete a brief questionnaire.

Survey aims to measure the prevalence of HIV and viral hepatitis, and to monitor changes in related behaviours.

First participations from 2013-2014 were included in the analyses.

All analyses were undertaken in SPSS. Results of the multivariable analysis are presented.
The sample

During 2013-2014, there were 3,980 first participations by people who had injected drugs during the preceding year. Of these, 2,038 (51%) were HCV antibody (anti-HCV) positive:

- their median age was 38 years (at time of participation);
- one quarter (25%) were women;
- around one in 15 (7%) had been born outside of the UK;
- 80% reported that they had ever been imprisoned;
- 20% had been homeless during the preceding year, &
- 91% had injected heroin during the preceding year, 55% crack-cocaine, & 29% amphetamine.
Of the anti-HCV positive participants, *44%* (903) were aware that they had been infected hepatitis C.

Those who were *unaware* that they had been infected were (bivariate analyses only):- younger, and more likely to be women. They are were also less likely to report recent sharing.
Entry into a care pathway

What factors are associated with care pathway entry among those aware of their hepatitis C status?

Will look at markers for two components of a care pathway entry:

1. Did they reported that they had ‘seen a specialist nurse or doctor about their hepatitis C’.

2. Did those who reported that they had seen a specialist nurse or doctor about their hepatitis C, report that they had been given ‘medicine for their hepatitis C’.
Seen a ‘specialist nurse or doctor about their hepatitis C’: 1

Of those aware that they had been infected with hepatitis C, 62% reported that they had seen a specialist nurse or doctor about their hepatitis C.

Or around one-quarter (28%) of all of those with antibodies to hepatitis C (i.e. both those aware & unaware).
Of those aware that they had been infected with hepatitis C, there was no differences in proportions who reported seeing a specialist nurse or doctor about their hepatitis C by:-

- Gender, &
- Age (though not significant, those younger were more likely to report seeing a Nurse or Doctor).

In the multivariable analysis the following factors were associated with having seen a doctor or nurse about their hepatitis C.
Factors associated with ever having ever seen ‘a specialist nurse or doctor about their hepatitis C’

<table>
<thead>
<tr>
<th></th>
<th>Seen specialist Doctor or Nurse</th>
<th>AOR</th>
<th>95% CI for AOR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td><strong>Born in the UK?</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>75%</td>
<td>16</td>
<td>63</td>
</tr>
<tr>
<td>Yes</td>
<td>61%</td>
<td>325</td>
<td>840</td>
</tr>
<tr>
<td><strong>Received money, goods or drugs in exchange for sex?</strong></td>
<td>No/NR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>63%</td>
<td>308</td>
<td>841</td>
<td>1.00</td>
</tr>
<tr>
<td>Yes</td>
<td>47%</td>
<td>33</td>
<td>62</td>
</tr>
<tr>
<td><strong>Used a primary care (family doctors / GP) service?</strong></td>
<td>No/NR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>57%</td>
<td>128</td>
<td>298</td>
<td>1.00</td>
</tr>
<tr>
<td>Yes</td>
<td>65%</td>
<td>213</td>
<td>605</td>
</tr>
<tr>
<td><strong>Injected with a needle/syringe already used by someone else?</strong></td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>61%</td>
<td>289</td>
<td>737</td>
<td>1.00</td>
</tr>
<tr>
<td>Yes</td>
<td>69%</td>
<td>52</td>
<td>166</td>
</tr>
<tr>
<td><strong>Injected cocaine powder?</strong></td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>64%</td>
<td>275</td>
<td>762</td>
<td>1.00</td>
</tr>
<tr>
<td>Yes</td>
<td>53%</td>
<td>66</td>
<td>141</td>
</tr>
<tr>
<td><strong>Injected crack-cocaine?</strong></td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>69%</td>
<td>110</td>
<td>355</td>
<td>1.00</td>
</tr>
<tr>
<td>Yes</td>
<td>58%</td>
<td>231</td>
<td>548</td>
</tr>
</tbody>
</table>

* In preceding year.
Given any ‘medicine for their hepatitis C’

Of those aware that they had been infected with hepatitis C and who reported that they had seen a specialist nurse or doctor about their hepatitis C, 27% reported being given ‘medicine for hepatitis C’.

This is about one in 14 (7%) of all of those with antibodies to hepatitis C (i.e. both those aware & unaware).
Given any ‘medicine for their hepatitis C’

Of those aware that they had been infected with hepatitis C and who reported that they had seen a specialist nurse or doctor about their hepatitis C, there was no difference in the proportions who reported being given ‘medicine for their hepatitis C’ by:-

- Gender, &
- Age.

In the multivariable analysis the following factors were associated with being given ‘medicine for their hepatitis C’ among those having seen a doctor or nurse.
Factors associated with been given any "medicine for their hepatitis C"

- Overdosed: AOR=0.52, 95%CI 0.30-0.90
  Baseline: OR 1.0

- Midlands & Eastern England: AOR=1.92, 95%CI 1.19-3.07
- London & Southern England: Baseline OR 1.0
- Northern England: AOR=2.08, 95%CI 1.14-3.80
- Wales & Northern Ireland: AOR=1.33, 95%CI 0.84-2.12
Limitations

- The proportion diagnosed and proportion of these receiving hepatitis C care among those PWID not in contact with specialist services for people using drugs may be different.

- The data on being given ‘*medicine for their hepatitis C*’ should be treated with caution. This is unlikely to be an indicator of the uptake hepatitis C treatments, such as directly acting antivirals. It will more probably reflect the participants perceptions of the extent to which the care that they have received is related to their hepatitis C status.

- Laboratory data is only antibody testing.
Conclusions

Many hepatitis C infections among PWID remain undiagnosed.
However, many of those who have been diagnosed have accessed specialist healthcare workers.
Those with greatest drug use & sexual risks (as indicated by crack injection, overdosing, and transactional sex) may be less likely to have accessed HCV related healthcare.
Targeted interventions (such as point-of-care testing in drug services) are needed to improve the uptake of HCV testing.
Care pathways for, and the follow-up of, those testing positive both need to be improved.

How?
Thank you for your attention

We are grateful to all of the people who took part in the survey and to the various services that assisted with their recruitment. In addition, we would like to thank those who provided administrative support for the surveys and those who undertook the laboratory work.

This work was core funded by Public Health England.

There are no conflicts of interest.