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Cost-effective tools to reduce the spread of the Hepatitis C Virus in people who inject drugs

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About the research

There are an estimated 71 million people worldwide living with the blood borne virus (BBV) hepatitis C. Most new infections in the UK and other developed countries are amongst people who inject drugs. Therefore, initiatives to reduce the spread of the hepatitis C virus (HCV) in this population are needed.

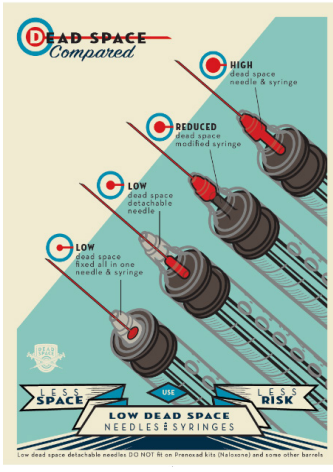
This multi-method research project has strengthened the evidence base for World Health Organization (WHO) and UK National Institute for Health and Care Excellence (NICE) recommendations that aim to eliminate HCV amongst people who inject drugs. It evaluated the clinical benefits and cost-effectiveness of needle and syringe programmes (NSP) that provide access to sterile injecting equipment for people who inject drugs and the use of low dead space syringes in reducing the spread of the HCV.

Low dead space syringes can reduce the spread of BBVs when injecting equipment is shared. This is because less blood is left in the low dead space syringe after use, compared to syringes with a higher dead space. Whilst low dead space syringes with fixed needles have been available for many years, some people who inject prefer to use detachable needles, and these syringes have a much greater dead space. Recently, detachable low dead space needles have been developed, giving more options to people who inject drugs.

This research project worked with NSP workers in Bristol and Bath and people who inject drugs to explore their views about the acceptability of detachable low dead space syringes in order to inform initiatives aimed at increasing their use. Co-designed materials were produced with people who inject drugs in order to promote the use of needle and syringe programmes and low dead space syringes amongst key populations.

Policy implications

- Access to needle and syringe programmes can reduce the spread of the HCV among people who inject drugs and reduce health care costs.
- When commissioning services local authorities must aim to increase the reach of needle and syringe programmes and provide funding to promote the use of the lowest dead space syringes suited to service user needs.
- Needle and syringe programmes should offer both fixed and detachable low dead space syringes in order that low dead space options are available for a broad range of injecting practices.
- Gradual introduction of detachable low dead space syringes, initially alongside existing equipment, is more likely to be acceptable to people who inject drugs.
- Interventions to increase the use of detachable low dead space syringes should include training for staff, education and information for service users, and monitoring of adverse events.



Key findings

1. Clinical benefit and cost-effectiveness

- We used mathematical modelling techniques and economic analyses of local, national, and international data sets to show:
- Needle and syringe programmes, which increase the availability of sterile injecting equipment, are a highly effective and low cost way of reducing the spread of the HCV among people who inject drugs.
- Fixed needle low dead space syringes are associated with reduced spread of HCV among people who inject drugs.
- Economic analysis suggests that replacing detachable high dead space syringes with detachable low dead space syringes at NSPs is a cost-saving approach to reducing hepatitis C transmission among people who inject drugs in Bristol.
- Interventions aimed at people who inject drugs will contribute greatly to global efforts to eliminate the HCV.

2. Views of people who inject drugs and needle and syringe programme staff

In order to understand the barriers and facilitators to the use of detachable low dead space syringes, we interviewed 23 people who inject drugs and 13 needle and syringe programme staff recruited from two sites in Bristol and Bath.

People who inject drugs and staff felt there would be initial frustration about having to change familiar equipment. However, staff expected that most people who inject drugs would be willing to try the new syringes and to continue using them if they worked as well as the original equipment. We also found support among people who inject drugs who valued the benefits of less wasted drug and the lower risk of transferring infections.

3. Co-designed promotional materials

We have co-designed, with people who inject drugs and a graphic designer, information resources to promote the NSPs and the lowest dead space syringes possible. The materials, including posters, leaflets, videos, and animations, are available to download from the Exchange Supplies website. A brochure of the materials was sent to 500 drug agencies / key opinion leaders, and in a three month period following the launch there were 2913 page views of the materials on the Exchange Supplies website and over 5000 views on Facebook. The co-designers enjoyed being involved in the design process and said that having their voices heard and valued was a validating experience. They felt their involvement meant the materials were more credible and reflected the language used by service users and their preferences.

Recommendations for the implementation of detachable low dead space syringes

Based on our research findings, and informed by behaviour change theory, we recommend:

- Introduction of detachable low dead space equipment should be gradual, with new equipment being made available alongside existing supplies.

- Interventions should focus on increasing the capability, opportunity and motivation of people who inject drugs to change from high dead space to lower dead space syringes. This can be achieved by NSP staff taking 5 key actions:

1. Undertake training about the benefits of low dead space syringes, how to identify barriers to change and ways to support changes in behaviour.

2. Provide accessible information and education to people who inject drugs to raise awareness of the benefits of low dead space syringes.

3. Use peer networks to spread information.

4. Make detachable low dead space syringes available, and over time reduce the availability of high dead space syringes.

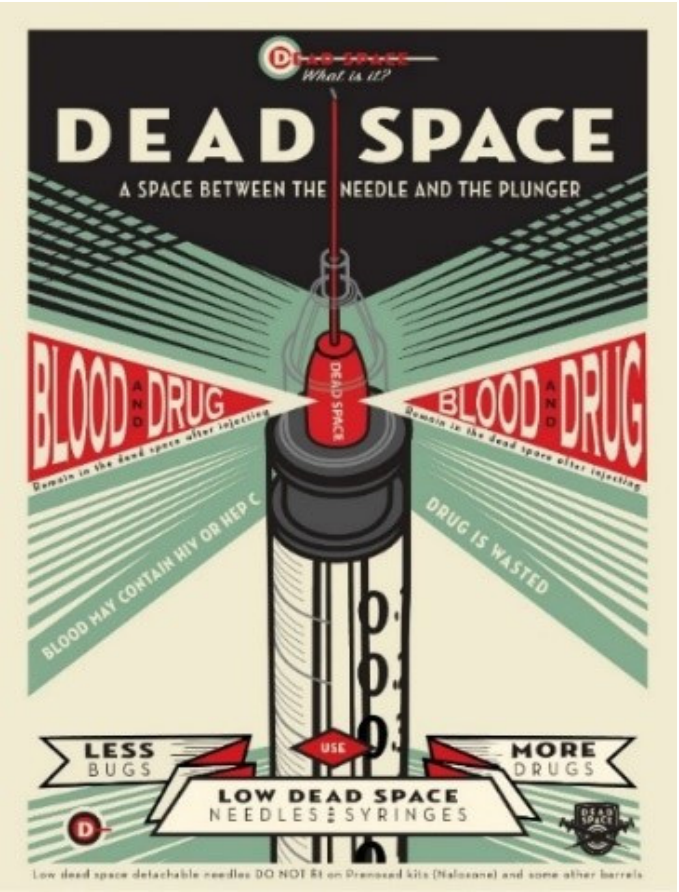
5. Monitor and respond to any safety, health or practical problems which service users have using the new equipment.

Following on from our research Bristol Drugs Project (BDP) used this is implementation strategy to successfully replace high dead space syringes with low dead space alternatives for all injecting equipment (except where no low dead space equivalent exists).

"Following the recommendations that came from the research, the switch over of equipment was really smooth. Because of the information we provided to staff and service users the equipment was well received. Even some clients who were initially resistant to changing have now switched. This is because the research told us that highlighting the benefits to the individual injector was the key to making them acceptable"
BDP staff member

Recommendations for eliminating Hepatitis C

- The World Health Organization (WHO) has developed a Global Health Strategy to eliminate hepatitis C virus infection as a public health concern by 2030.
- To meet this objective WHO and UK National Institute for Health and Care Excellence (NICE) guidelines state that people who inject drugs should have access to needle and syringe programmes where they can get sterile injecting equipment.
- It is also recommended that needle and syringe programmes encourage the use of low dead space syringes.
- However, funding for programmes is under threat within limited government budgets.



Materials

The posters and leaflet:

bit.ly/ExchangeSuppliesLDSS

Watch the videos on YouTube:

bit.ly/DeadSpaceVideos

Download the videos:

bit.ly/DownloadDeadSpaceVideos

NIHR | Applied Research Collaboration West

bdp Bristol Drugs Project Independence from drugs and alcohol

EXCHANGE SUPPLIES MAKING INJECTING SAFER

NIHR | Health Protection Research Unit in Behavioural Science and Evaluation at University of Bristol

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Further information

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