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INTRODUCTION

Chronic hepatitis C virus infection (HCV) is a major cause of end stage liver disease. It is known that HCV is common in incarcerated individuals, with previous estimates suggesting ~7% of the UK prison population is HCV antibody positive. Increasing diagnosis, treatment and monitoring of HCV in prison is therefore a priority in order to achieve “elimination”. Prior to the implementation of opt out, as a national policy, HCV testing rates in UK prisons were low (4%) and largely opportunistic.

AIM

To increase diagnosis and treatment of HCV in prisons in the North East of England (NEE) we implemented:

1. A universal offer of blood borne virus testing (UOBBVT) using dry blood spot testing (DBST) for prisoners at reception to increase diagnosis
2. Prison Telemedicine clinics within NEE Prisons to increase HCV treatment rates.

Here we present the 1 year pilot of UOBBVT in HMP Durham and the pilot of the introduction of telemedicine in HMP Northumberland

METHOD

The BBV testing pathway (HMP Durham)

- HMP Durham is a remand prison with a very high turnover of inmates so offers a good prison to test for HCV in.
- Previously standard venepuncture was used to screen for BBVs in those requesting a test.
- Dry blood spot testing (DBST) was introduced to HMP Durham to maximise uptake of the UOBBVT.
- Staff training was implemented prior to roll out of the program
- From March 2016 all HMP Durham prisoners were to be offered BBV testing at prison reception using DBST (Fig 1).
- Data was collected on the offer and uptake rates for BBV testing prior to and after implementation of UOBBVT.

HCV treatment pathway (HMP Northumberland)

- HMP Northumberland houses medium sentence prisoners so offers a good place to treat HCV as many can complete the treatment while in prison.
- Previously HCV positive inmates were seen at Newcastle hospitals for an assessment for HCV treatment and then treatment was delivered by HCV nurse in-reach in the prison.
- In the new pathway, HMP healthcare staff identify inmates who have tested HCV RNA positive (many of whom were tested in Durham) and wish to proceed with treatment.
- Full assessment and history taking is undertaken by the in-reach HCV nurse who co-ordinates a Telemed Clinic (TC) with the Hepatology Consultant.
- The inmate is then referred into the MDT for discussion and treatment is given in line with NHS England recommendations
- Details of treatment rates prior to and after implementation of the new treatment pathway was collected.
- Those individuals found to be HCV RNA positive with a short sentence (preclude commencement of antiviral therapy) in either HMP Durham or Northumberland were provided with written information about their diagnosis and details of contacts for community HCV treatment services accessing treatment upon release.

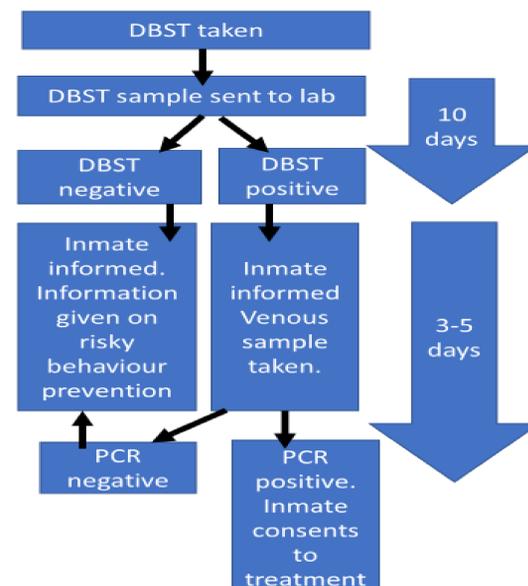


Figure 1. HCV/BBV Testing pathway

RESULTS

UOBBVT

- Prior to implementation of UOBBVT in HMP Durham testing rates were low - **in 2013/4 only 164 of the 7,000 new receptions (2.3%) had BBV testing.**
- **After introduction of UOBBVT From Mar 2016-Feb 2017 2,831 (66%) new receptions were offered BBV testing.**
- 1,495 (53% of offered) of new receptions accepted BBV testing.
- Offer and uptake rates have remained very similar from month to month (Fig 2)
- 95 (6.4%) were anti HCV antibody positive.
- **47 (49.5%) were HCV RNA positive, confirming active infection (3.1% of all tested).**
- Common reasons for non-acceptance of the test were inmates stating: “doesn’t want it” (54%), “already had test” (37%) or

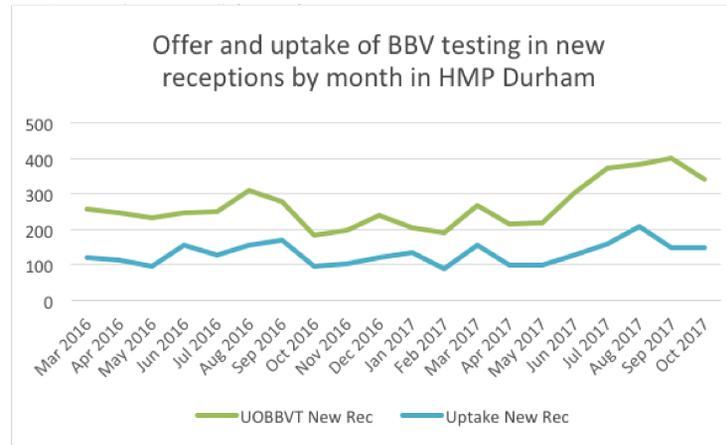


Figure 2. Offer and uptake rates per month in HMP Durham

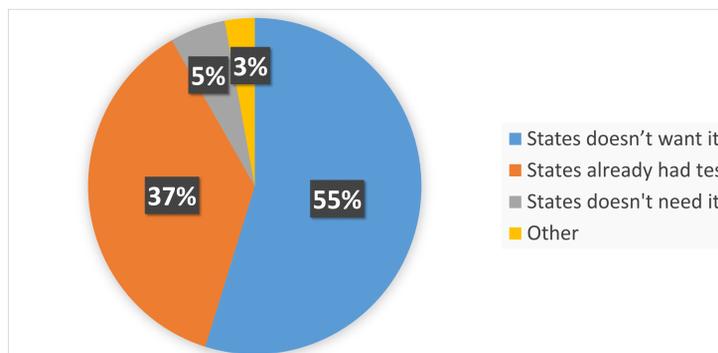


Figure 3. Reasons for declining BBVT in HMP Durham

RESULTS

Rollout of UOBBVT to the other NEE prisons

- Significant increases in BBV testing rates has been seen since the rollout of the program to other NEE prisons
- Testing rates have increased from an average of 12 BBVT/month to 40/month HMP Low Newton
- HMP Frankland has also seen a significant increase in uptake from 3 BBVT/month to 29 /month.
- Since introduction of the BBV testing program, treatment rates have dramatically increased across the NEE prison estate.
- Between Feb 2017 and Jan 2018 a total of 159 commenced antiviral treatment. (Increase from 70 in 16/17)

Review of treatment rates prior to and after implementation of the telemedicine treatment pathway in Northumberland Prison (NP)

- Prior implementation of TC, in 2013-2014 102 HCV tests (44 HCV Ab pos and 29 HCV RNA pos) were performed at HMP Northumberland **only 4 started treatment in that year** (PHE, 2014).
- Telemed clinics (TC) began in August 2015 in HMP Northumberland.
- **Following implementation TC, between Aug 2015 and Oct 2017 80 individuals were seen in the TC in HMP Northumberland.**
- Of those seen in the TC, 57 (71%) commenced HCV treatment.
- Overall, satisfaction with the TC among the prisoners was very high (80% good or excellent).
- TCs are a highly efficient use of consultant time and is hugely cost saving with reduced cost of prisoner movement.
- Typically a consultant sees 10 inmates in a 2 hour clinic.

CONCLUSIONS

- A universal offer of BBV testing to prisoners at reception to prison can substantially increase testing rates and lead to many new diagnoses of HCV.
- Non-acceptance rates still remain high so it is important that there are other opportunities for testing within the prison.
- Telemedicine clinics with Nurse-led Prison in-reach offer a cost effective and efficient method of treating HCV in the prison environment.
- These services have now been implemented in all NEE Prisons.

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