

# Hepatitis C

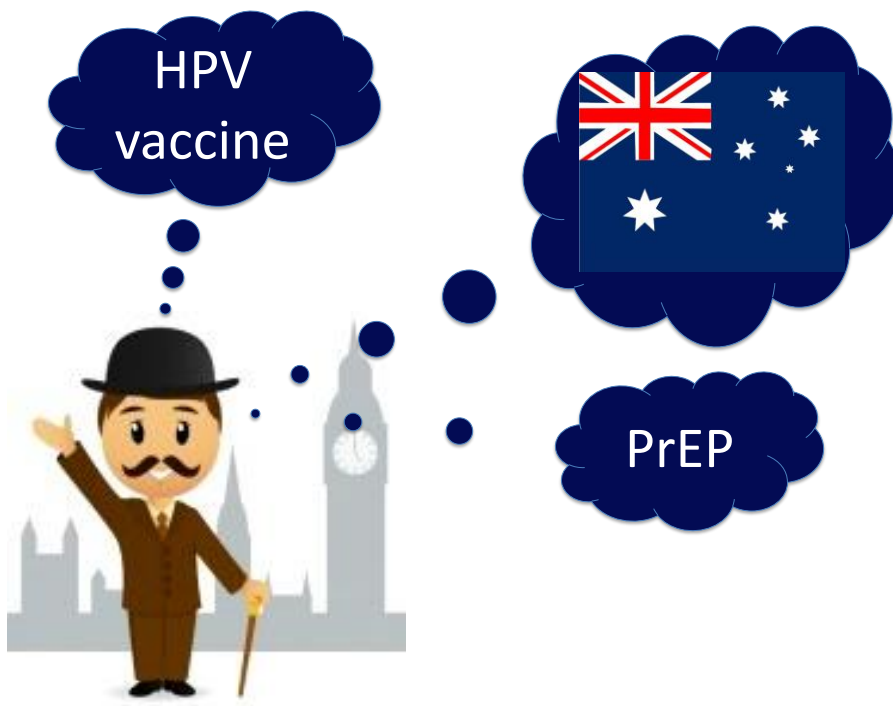
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British HIV Association

## Content

- Where are we at?
- Transmission
  - Giving the right advice
- Elimination

## First question?

- Why ask someone from the UK to present on hepatitis C at an Australian national conference?



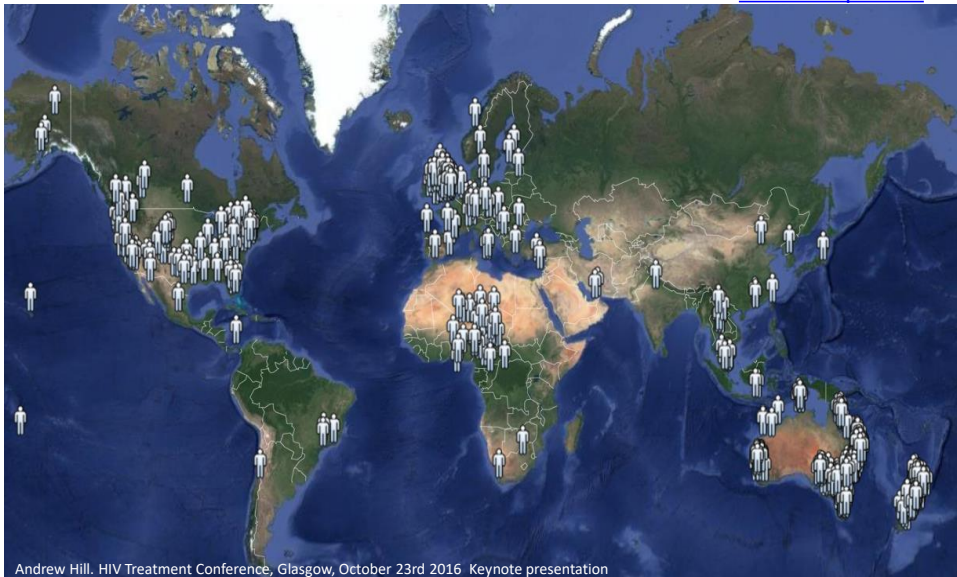
## Where Australia leads....

- ***“Thanks to a pioneering risk-sharing agreement between the Australian Government and Pharmaceutical companies for DAAs beginning March 2016, all Australian adults are now able to access government-funded treatment”***
- **NHS England are currently considering the ‘Australia model’ but in context of all specialised services**

<https://www.hepatitisaustralia.com/newsarticles/australia-currently-on-track-to-eliminate-hepatitis-c-by-2030-but-challenges-remain-for-hepatitis-b/2/11/2017>

**FixHepC Buyer’s Club**

**fixHepC**  
[www.fixhepc.com](http://www.fixhepc.com)



Andrew Hill. HIV Treatment Conference, Glasgow, October 23rd 2016 Keynote presentation

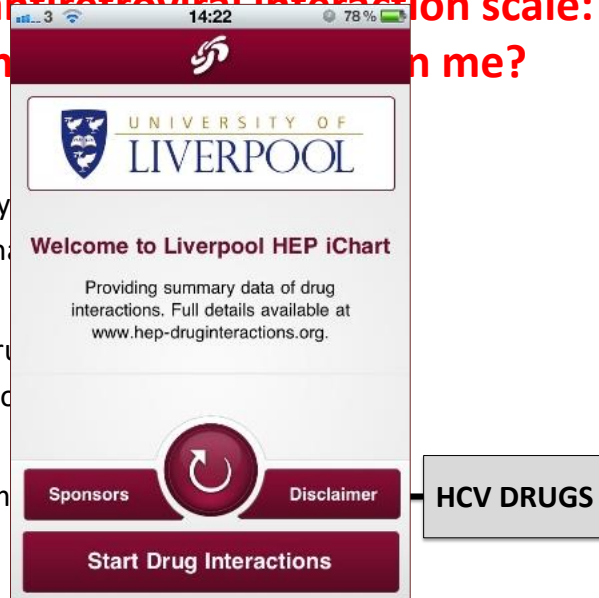
## WHERE ARE WE AT?

### HCV treatment now

- Short-course
- Well-tolerated
- Highly effective
- Increasingly affordable
- Outcomes same regardless of HIV status
- PLHIV more likely to be engaged in care?
- Drug-drug interactions....

## Waters antiretroviral interaction scale: which one do you use?

- **Level 1:**
  - Emergency
  - Recreational
- **Level 2:**
  - Lifelong drug
  - Over the counter
- **Level 3:**
  - Short-term



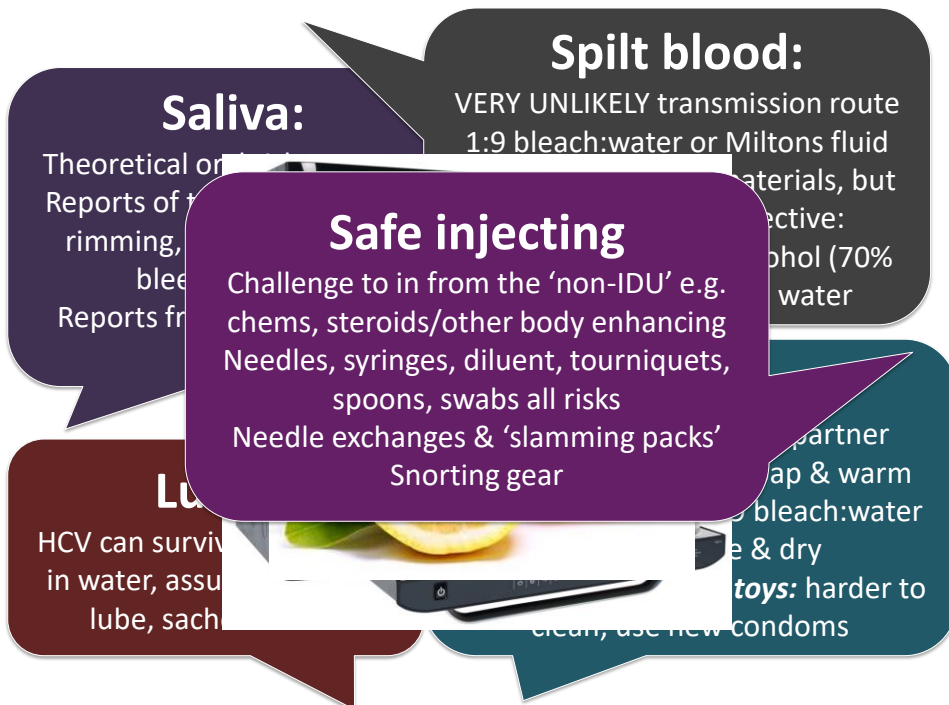
## Guidelines

- **Offer treatment to all people with HCV**
- **Drug regimen & duration dependent on:**
  - Genotype
  - Treatment-experience
  - Fibrosis stage
- **Lack of guidance for treatment of acute HCV**
- **SVR12 = cure time point**
  - sensitive HCV-RNA lower limit of detection  $\leq 15$  IU/ml

# TRANSMISSION

## History

- **NHS England don't treat re-infections**
- **Reinfection common in MSM**
  - 25% at 2 years in HIV co-infected MSM in London
  - 33% at 3 years in HIV co-infected MSM in Amsterdam
- **We set up HCV reinfection prevention workshops:**
  - Group sessions offered to all
  - Peer-led
  - Medical & psychology input
- **Yielded a lot of questions!**
- **Not about fibrosis scores or genotypes....**



## Our local HCV figures

- **April 2015 to April 2017 = 95 cases acute hep C**
  - 94% male, average age 41
  - 77% HIV+, 6 HIV- using PrEP
- **Reported risks**
  - 27% reported injecting & 38% snorting drugs
  - 48% reported chem sex
  - **27% reported CLAI as only risk factor including two HIV-**
- **Other STI = 37%**
  - 22% syphilis
  - 26% rectal chlamydia or gonorrhoea.

## Shedding of Hepatitis C Virus Into the Rectum of HIV-infected Men Who Have Sex With Men

Andrew L. Foster,<sup>1</sup> Michael M. Gaisa,<sup>1</sup> Rosanne M. Hijdra,<sup>1</sup> Samuel S. Turner,<sup>1</sup> Tristan J. Morey,<sup>1</sup> Karen B. Jacobson,<sup>1</sup> and Daniel S. Fierer<sup>1</sup>

<sup>1</sup>Division of Infectious Diseases, Icahn School of Medicine at Mount Sinai, New York, New York

**Therefore plausible that a penis or other fomite such as a sex toy could carry enough HCV to another rectum to result in transmission.**

**Findings support accumulating epidemiological evidence that rectal bleeding is not required for transmission of HCV among HIV-infected MSM**

Foster AL et al. Clinical Infectious Diseases 2017;64(3):284–8

### Case report

## Acute hepatitis C from heterosexual transmission

Cátia Dias\*, Sara Pipa, Margarida Mota

Department of Internal Medicine, Centro Hospitalar de Vila Nova de Gaia, Espinho, Portugal

- Divorced, 45-year old woman<sup>1</sup>
- Current sexual partner untreated HCV and HIV
- Admitted with acute hepatitis & hepatic insufficiency
- Hepatitis serology negative
- Liver biopsy
- **HCV-PCR sent on day 10**
- **Monogamous heterosexuals: risk 0.07% annually<sup>2</sup>**

ID Cases 13, 2018; Terrault NA et al. Hepatology 2013.



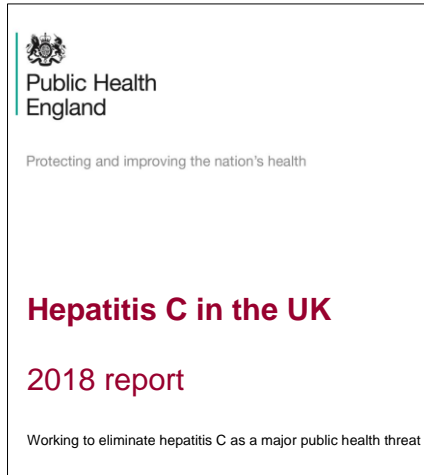
# ELIMINATION

## WHO elimination targets

- 2016 saw the **first global targets** for viral hepatitis
- 9 countries on course to eliminate HCV by 2030:
  - Australia
  - Brazil
  - Egypt
  - Georgia
  - Germany
  - Iceland
  - Japan
  - The Netherlands
  - Qatar
- **The NHS recently announced that it will go one better...to eliminate the disease in England by 2025**

[http://apps.who.int/gb/ebwha/pdf\\_files/WHA69/A69\\_31-en.pdf?ua=1](http://apps.who.int/gb/ebwha/pdf_files/WHA69/A69_31-en.pdf?ua=1), <http://www.who.int/mediacentre/news/releases/2016/wha69-28-may-2016/en/>, <https://www.sciencealert.com/hepatitis-c-is-being-eliminated-nine-countries-brazil-world-health-organisation-summit> 2017 report  
<http://theconversation.com/can-england-really-eliminate-hepatitis-c-by-2025-90979>

## Hepatitis C in the UK



- 210,000 people living with chronic HCV in UK cf 230,000 in Australia
- Injecting drug use main driver
- 50% of PWID in England have current/past HCV

<https://www.asid.net.au/documents/Item/1208>

## Key figures

- **HCV-related ESLD & HCC**
  - Stable 2011-2015, 3% drop in 2016, 11% drop in 2017 Driven by ESLD (HCC risen slightly)
- **Around 2/3 of PWID with HCV aware of status**
  - WHO 2020/2030 targets are 50%/90% (currently 20% globally)
- **BUT, HCV prevalence in PWID unchanged**
  - 24% in 2008, 22% in 2014
- **Three key goals:**
  - Adequate harm reduction for PWID (safe injecting, OST)
  - Increasing the proportion who are diagnosed
  - Increasing the proportion accessing treatment & achieving SVR

## Diagnosing the undiagnosed & bringing the long diagnosed back into care

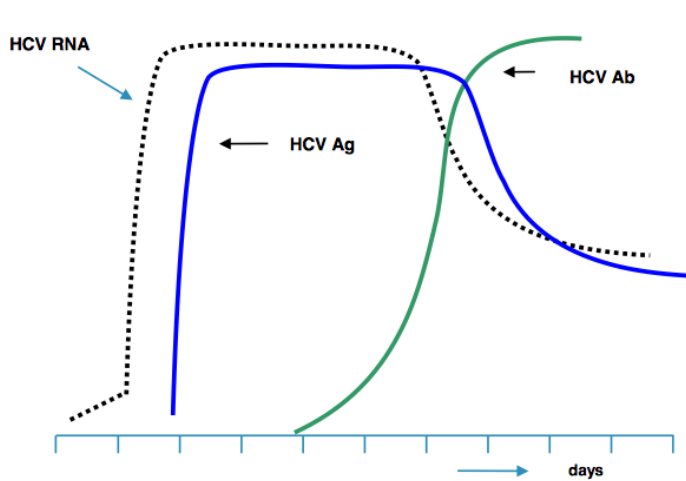
- **Improving diagnosis**
  - Opt-out prison testing, better testing of PWID & people with links to communities of high HCV prevalence
  - Community-based testing, DBS & POCT
  - Public information
  - Linkage of testing and treatment
- **Bringing the long-diagnosed back into care**
  - Public information
  - Targeting primary care
  - Laboratory & clinical database trawls

## Do the right test: hepatitis C antigen?

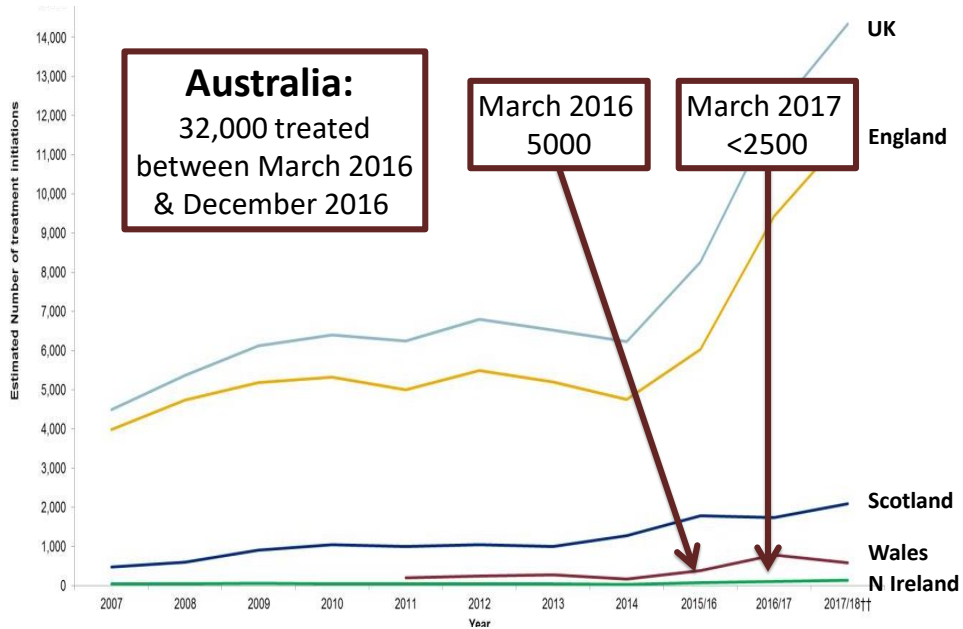
- Similar cost to antibody, more sensitive, reinfection
- **Local experience (unpublished data):**
  1. Missed 4% of acute HCV in MSM (n=76)
  2. With old algorithm of HCV-Ab (+ HCV-RNA if ALT raised):  
**34/76 (45%) would have been missed**
- **Oxford data in 353 new HCV diagnoses<sup>1</sup>**
  - HCV-Ag had 100% PPV compared with HCV-RNA
- **Amsterdam data in 44 HIV+ MSM with acute HCV<sup>2</sup>:**
  - HCV-Ag 89% sensitive, 100% specific

1. Adland et al. BMC Infectious Diseases (2018) 18:461;  
2. Hulleger SJ et al. Journal of the International AIDS Society 2017, 20:21621

## Window periods



## Estimated annual treatments



## The England set-up

- **Controlled delivery**
  - 22 Operational Delivery Networks (ODNs)
  - Prioritisation scores (individual to ODNs)
  - Blueteq approval (national high-cost prescribing system)
  - Cost-based drug algorithms (2<sup>nd</sup> line needs 2<sup>nd</sup> approval)
- **Collaboration with pharmaceutical companies**
  - Regular procurement (and changes to algorithm!)
  - ‘Pay per cure’, pharma commitment to identify patients
- **Data**
  - National ‘real time’ registry since 2017

## What next?

- England is one of few countries in Europe DAA treatments are increasing year on year
- BUT we are starting to exhaust the ‘easy to treat’
- **Testing**
  - Regular testing of MSM
  - Hostels, prisons, primary care for marginalised people
  - Combined with other health screening/promotion
- **Treatment**
  - Community-based, nurse-delivered
  - **Australia ahead: prescribing by nurse practitioners**

## Reinfection

- **High reinfection rates in MSM living with HIV (likely to be high in some HIV-negative MSM also)**
- **Annual incidence of HCV in PWID in England estimated to be 15-20% in 2017 (PHE)**
  - Reinfection likely similar without access to risk reduction?
  - 50% of PWID report adequate needle & syringe provision



## What to focus on?

- **UK:**
  - No accurate estimates of % undiagnosed
  - 50% of PWID in non-traditional settings
  - We need to focus on PWID in non-traditional settings
- **Australia:**
  - 82% of PWID accessing treatment 2012-2015 were PWID, increased to >1/5 in 2016
  - Treatment within prisons & drug/alcohol programmes

Globally only 20% of people living with chronic HCV know their status

## New challenges: World AIDS 2018

The screenshot shows the NAM Aidsmap website interface. At the top, the logo 'nam aidsmap' is displayed with the tagline 'HIV & AIDS - sharing knowledge, changing lives'. A search bar is located in the top right corner. Below the logo is a navigation menu with links for Home, News, HIV Basics, Topics, Resources, Translations, and E-atlas. The main content area is titled 'News' and features several filter buttons: Latest news, News by topic, NAM news and opinions, HIV update, News feeds, and Conference news. A specific article is highlighted with the tag 'HEPATITIS C TRANSMISSION AND PREVENTION'. The article title is 'Unprecedented hepatitis C infection rates seen in gay men in Amsterdam PrEP programme'. To the right of the title are social media sharing options: Print, Email, Like (3), and Tweet.

### AmPrEP Cohort: December 2017 analysis

- **374 MSM & 2 TGW recruited since 08/2015**
  - 6 monthly HCV testing
  - 4.8% HCV+ at study entry; annual incidence 1% = akin to rates in MSM with HIV (loss of serosorting?)
  - 25.5% annual reinfection rate
- *“sexual health information & encouragement to avoid behaviours that may spread hepatitis C important but **frequent testing and immediate treatment** probably only way to start bringing down the rates of hepatitis C in the gay community”*

## What can we do?

- **Advise appropriately**
  - Counsel MSM that condomless anal sex is a risk
  - Talk about sex toys, lube, fisting
- **Screen appropriately**
  - Incorporate HCV screening into STI screening amongst higher risk people including those on PrEP
- **Treat correctly & quickly**
  - Sexual network-based treatment
- **Support & don't judge**

## Conclusion





**Thank you!**



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