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Clinical Round Up

Authors

Lewis Haddow ¹

Sophie Herbert ²

Affiliations

¹ Centre for Sexual Health and HIV Research, University College London, UK

² The Ashwood Centre, St Mary's Hospital, Kettering, UK

Author contributions

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Reducing the undiagnosed fractions of HIV and hepatitis C

A recent article looked at different strategies for identifying undiagnosed hepatitis C virus (HCV), most of which did not work.¹ A screening approach, randomly sampling over 5000 people registered with primary care teams in Catalonia, resulted in a 4% response rate. After sending 200 letters per week for 8 months, one new case of HCV was identified. A second approach involved placing posters and leaflets in clinics. This attracted around 70 people to test from a target population of 20,000, and also identified one new case of HCV. The third approach used laboratory records to target people with raised transaminases and unknown HCV antibody status and invite them for testing. This strategy identified 291 individuals at risk, of whom two were new HCV positive cases. From these results, population-based screening approaches do not seem useful. The third strategy, which also had a low yield overall, was simply a structured approach to following up on unexplained abnormal laboratory test results. Reducing the undiagnosed fraction of HCV remains a difficult challenge.

We know that antiretroviral therapy should be started early in HIV. The largest residual gap in the case cascade is probably early detection of HIV, therefore identifying untested individuals is of high priority in many countries. A Dutch study of men who have sex with men (MSM) brought together two internet surveys and an STI clinic database.² Survey methodology is a rapidly-evolving field that has had to shift in emphasis from traditional face-to-face surveys to internet-based surveys, and comparing these contrasting modalities is of interest. The authors compared the three data sources in their determinants of STIs, HIV

diagnoses, and lack of HIV testing. With regard to the lack HIV testing, the three databases were largely similar. Younger age, living outside Amsterdam, reporting fewer partners and taking recreational drugs were all related to never having tested for HIV. The main difference between the datasets was that a previous STI was not a discriminatory factor in the clinic population, whereas in the internet surveys the respondents who reported previous STI were more likely to have previously tested for HIV.

Post-exposure management of blood-borne viruses

Despite lacking the same quality of efficacy data as pre-exposure prophylaxis, post-exposure prophylaxis (PEP) continues to be widely used after non-occupational exposure to HIV. New information on adherence and observations about subsequent seroconversions is therefore welcomed in an analysis of 3547 consultations (2772 of which resulted in a prescription) for sexual PEP in Montreal.³ Adherence was defined as 5 missed doses or fewer in a month-long course. Of the many findings of the survey, the authors observed that there was better adherence to tenofovir/emtricitabine than to zidovudine/lamivudine, and that the third drug (raltegravir or ritonavir-boosted lopinavir) made little difference to adherence in those taking a tenofovir-based backbone. There were ten seroconversions in treated patients: half occurred between the end of the course and week 12 after exposure, and half occurred between weeks 12 and 24. In all but one case there was a history of re-exposure to HIV, suggesting that true PEP failure is a rare event.

Another interesting article may help with post-exposure counselling after occupational or non-occupational, non-sexual HCV exposure. Binka et al studied the recovery of HCV particles from inside syringes and hollow needles.⁴ The experiments examined the residual

volume of liquid in syringes and needles and the viability of HCV in syringes. This was done immediately after use, after rinsing with water, and after a week at room temperature.

Immediately after contamination, the percentage of syringes with viable HCV was high: typically between 80-90%, with the exception of an insulin syringe with a fixed 27 ½ G needle, which only had 47% recovery of viable HCV. In most instances there was a rapid drop-off in HCV viability in the first day after contamination, with half-lives varying between needle/syringe combinations from 0.25 to 2.3 days.

Mindfulness-based therapy for people living with HIV

Mindfulness-based stress reduction (MBSR) is a psychological technique that has risen to prominence over the past ten years and has made claim to psychological and physical benefits in many different diseases. All studies looking at an MBSR programme as an intervention specifically in HIV positive people have been systematically reviewed by Riley and Kalichman.⁵ There were 11 such studies, of which 4 were randomised controlled trials (RCTs); the rest were non-randomised or single-arm studies, and as such are poorer-quality evidence, especially for a non-blinded intervention. Our hunch is that HIV clinicians would most likely want to refer for MBSR for psychological and not physical benefits. Looking at only the RCTs, the beneficial effects reported were small and included CD4 count changes and improvements in affect. There were no changes in behaviour. There is probably not enough evidence in this field to convince the sceptic to recommend MBSR, but one cannot yet rule out its effectiveness.

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