



Sexually active students' acceptability of providing saline oral samples for future HPV testing

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Research Letter

Acceptability to “Test n Treat” trial participants of providing saline oral samples for future HPV testing

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Under Review

Most (70%) 16-24 year olds report having oral sex¹, but many are unaware that this can lead to sexually transmitted infections (STIs) in the throat. In addition, we lack UK data on both the prevalence of oropharyngeal STIs in young people not attending healthcare facilities, and on acceptable oral sampling techniques. We aimed to assess the acceptability of saline oral rinses in sexually active, ethnically diverse teenagers (50% black, 25% white, 25% other ethnic groups) attending six London further education colleges.

In April-May 2017, "Test n Treat" trial² participants were asked to complete a follow-up questionnaire and provide a self-taken vaginal swab (females) or urine sample (males) for rapid chlamydia/gonorrhoea testing and same day on-site treatment if required. They were then asked to read a brief information sheet and (if willing) to sign a consent form to provide a mouthwash sample for future STI research. They were asked to gargle 10mls of normal saline for 15 seconds, swish it around their mouth for a further 15 seconds and spit it back into the container.

At two sites participants were also asked two questions:

"How did you find doing the sample?"

"Would you do it again if it were an option at a clinic?"

Most participants (88%, 203/232) provided a mouthwash sample. The 203 participants providing a sample were broadly similar in gender to the 28 who did not provide one: male 47 % (95/203) versus 62 % (18/29). However, they were more likely than refusers to report ever engaging in oral sex: 60% (121/203) versus 28% (8/29, $p=0.001$), suggesting test uptake was not biased against 'at risk' individuals.

Most of those asked (94%, 48/51 at the two sites) said they would be happy to provide a mouthwash sample again: Reasons for not wanting to do it again included not being able to gargle, "tasted nasty", suspicion about the saline buffer, and lack of education-thought only men who had sex with men were at risk.

In an adjunct validation study using the same sampling technique, 10ml saline oral rinses were collected from 25 low risk adults, split into two fractions and stored in a fridge at 2-8°C or in a -80°C freezer before next day processing and testing for a housekeeping gene by quantitative DNA PCR. Samples stored at 2-8°C were similar to those stored at -80°C, and also similar to samples in our previous study³ suggesting they contained an adequate amount of cellular material for future HPV DNA testing³.

In conclusion, we found that providing saline mouthwash samples was acceptable to young sexually active students in the community and could be stored relatively simply for future analysis.

References

1. Mercer CH, Tanton C, Prah P, Erens B, Sonnenberg P, Clifton S et al. Changes in sexual attitudes and lifestyles in Britain through the life course and over time: findings from the National Surveys of Sexual Attitudes and Lifestyles (Natsal). *Lancet* 2013; 382(9907):1781-1794.
2. www.hra.nhs.uk/news/.../test-n-treat-a-feasibility-trial-of-rapid-sti-testing-and-treatment
3. King EM, Gilson R, Beddows S, Soldan K, Panwar K, Young C et al. Oral human papillomavirus (HPV) infection in men who have sex with men: prevalence and lack of anogenital concordance. *Sex Transm Infect* 2015; 91(4):284-286.

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Availability of data and materials

Data and materials may be obtained from SKB.

Authors' contributions

PEH, SKB, CF, SB and PO designed the study. JW and PO wrote the first draft to which all authors then contributed. All authors read and approved the final manuscript.

Competing interests

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Ethics approval and consent to participate

The study was approved by Bromley REC reference 15/LO/1929

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