Study title: *Alternative Cervical Screening (ACES) Primary Care*

We are pleased to say the findings of the ACES primary care study are now published. We would like to thank all those who took part and present you with a summary of the findings below.

What was the study trying to do?

Cervical screening is a test to help prevent cervical cancer and can save lives. However, only 7 in 10 people attend their screening appointment. This can be for a number of reasons such as embarrassment, inconvenience, pain or fear. **Our goal is to find ways of making cervical screening easy, accurate and convenient so that everyone can attend.** We think a urine test could help break down barriers and encourage more people to take part in cervical screening.

Who took part and where?

We recruited 1517 people who were attending routine cervical screening at their GP practice.

The study was funding by NIHR, sponsored by The University of Manchester and recruitment was conducted by staff at GP practices and hospitals across Manchester. These include Bowland Medical Practice, The Maples Medical Centre, The Lakes Medical Practice, Surrey Lodge Group Practice, Hawthorn Medical Centre, Urban Village Medical Practice, Didsbury Medical Centre and Lancaster Queen Square Medical Practice and Manchester University NHS Foundation trust.

How did we do it?

We collected urine samples from people in clinic, before their cervical screening test. Urine was collected using a device called a 'Colli-pee'. The colli-pee is designed to collect the first bit of urine after you start to wee. It collects a specified amount of urine and a special liquid in the collection tube helps to preserve the sample.

We asked people to fill out a questionnaire to see how they felt about self-collecting urine, and what they wanted for the future of cervical screening. People then continued to have their normal NHS care.

We tested urine for a virus called Human papillomavirus (HPV). Nearly all cervical cancers are caused by persistent infection with certain types of HPV. HPV testing is performed on all cervical samples collected for current routine NHS cervical screening.

We looked at the accuracy of the urine HPV result against the HPV result from the routine cervical screening test for each person. We looked at how accurate both were for the identification of people with high grade cervical pre-cancer. High grade cervical pre-cancer means people who have a higher chance of developing cervical cancer.

What did we find?

When tested for HPV, the urine collected using a colli-pee was 85% effective at identifying people without cervical disease.

The routine cervical test was 87% effective at identifying people without cervical disease.

When tested for HPV, the urine collected using a colli-pee identified 24 out of 25 (96%) people with high grade cervical pre-cancer.

The routine cervical test identified 100% of people with high grade pre-cervical cancer.

The questionnaire showed that people liked urine self-sampling but some prefer traditional screening, making choice an important consideration when making decisions about future cervical screening programmes.

What are we doing now?

HPV testing using colli-pee collected urine shows promise as an alternative test for cervical screening. We are now performing more studies to advance urine testing. This includes urine testing in people who are at greater risk of cervical cancer (people with a history of smoking and people who do not attend cervical screening). We are also looking at how the urine sample can be collected at home.

Where can I read more?

Please scan the QR code for a copy of the published paper.

If you need a paper copy, please email aces@manchester.ac.uk

https://pubmed.ncbi.nlm.nih.gov/40953936/