Cervical self-sampling yields useful cytology. (Mini-commentary on BJOG-20-0121.R1)

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Effective Cervical screening involves a complex sequence of interactions between women, clinical staff and systems. Even in well organised screening programmes, achieving high population coverage is challenging. The transition to using Human Papilloma Virus (HPV) testing as the primary screening modality, rather than cytology, has introduced the possibility of using a self-collected sample for the primary HPV test. This has been shown to be a reliable method of detecting CIN2+ (Polman et al, Lancet Oncology 2019;20(2):229-38).

Regardless of the way the sample is collected, the low specificity of a positive HPV test means that positive results must be triaged. In all cases where self-sampling has been integrated into a cervical screening programme to date, this triage is by cytology on a subsequent, clinician taken sample. Other molecular tests which can be performed on the original sample may in the future be an alternative, but are not yet fully evaluated.

It has generally been assumed that a self-collected sample would not be suitable for cytology because the cervix is unlikely to be thoroughly (if at all) sampled.

However, the authors have shown that using a well-established self-sampling device, 95.8% samples had at least 5000 cells, the usual threshold for adequacy for cytology. (ThinPrep LBC method). Results were highly specific, and in fact the positive predictive value (PPV) for high grade disease was higher on the self-collected specimens than on the subsequent professionally taken samples (Loopik et al. BJOG 2020 xxxx).

As expected, the sensitivity of the test was lower than for a professionally taken sample, but it still detected 29.4 % of CIN2+. In this study, an impressive 91.9% of women returned for their reflex cytology test. This is higher than in other studies, possibly because the study was not focussed on women who have previously not responded to invitation.

It is likely that a significant proportion of women needing treatment could be reliably identified by self-sampling alone by this method.

It is worth noting that despite implementation in several organised screening programmes, self-sampling tests for HPV have yet to achieve regulatory approval, and the process for doing so for cytology from self-collected samples is likely to require studies with more extended monitoring of clinical outcomes.

Self-sampling is not yet widely implemented internationally and the pathways can be challenging. There is a concern about how to address loss to follow up, design of multistep pathways for management, and potential delays in diagnosis. A pathway which could reliably prioritise women for referral for immediate colposcopy, with a high PPV for CIN2+, without requiring a face to face clinical interaction would be extremely valuable. This is potentially even more topical in the post COVID-19 world where there are new challenges in risks of consultations and in capacity of health care delivery.

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