LETTERS

URINARY TESTING FOR HPV

Authors' reply to Vorsters and colleagues

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We thank Vorsters and colleagues for their insightful comments on our paper.[1,2] We agree with Vorsters and colleagues and the editorialists that further research is needed to evaluate the impact of urine sampling procedures and testing protocols for the detection of HPV in urine.[3] Indeed, this was a key element of our discussion. We recommended standardised sampling and testing protocols to optimise test accuracy and minimise heterogeneity.

We found that first void urine sampling was associated with higher test accuracy. Vorsters and colleagues provide an interesting explanation for this and other potential sources of heterogeneity, such as timing of urine collection. They also provide other likely sources of heterogeneity, such as the timing and volume of first void urine. We thank them for drawing our attention to the use of collection devices to standardise first void urine sampling. We agree that these factors could partly explain the high heterogeneity noted in our review and recommend that they are taken into account when designing new studies on urine detection of HPV.

Unfortunately, our systematic review could not explore in depth all sources of heterogeneity owing to the small number of studies and the quality of reporting of technical details. A more powerful tool such as individual participant data meta-analysis would provide more insight into the impact of sampling characteristics on test accuracy.[4]

Competing interests: None declared.

1   Vorsters A, Van Damme P, Clifford GM. Urine testing for HPV: rationale for using first void. *BMJ* 2014;349:g6252.
2   Pathak N, Dodds J, Zamora J, Khan K. Accuracy of urinary human papillomavirus testing for presence of cervical HPV: systematic review and meta-analysis. *BMJ* 2014;349:g5264. (16 September.)
3   Kitchener HC, Owens GL. Urine testing for HPV. *BMJ* 2014;349:g5542. (16 September.)
4   Ter Riet G, Bachmann LM, Kessels AG, Khan KS. Individual patient data meta-analysis of diagnostic studies: opportunities and challenges. *Evid Based Med* 2013;18:165-9.

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