

PCL/23/03 - Novel diagnostics in gynaecology oncology.

Background: Currently, the diagnosis of gynaecological pathology involves invasive and costly tests. For those with Lynch syndrome (LS) such tests are particularly problematic. It is now known that women with endometrial cancer shed cancerous cells into urine samples and the vagina. Microsatellite-instability (MSI) is a feature of cancers seen in LS. Therefore, testing the urine or sampling the vagina provide an alternative means of surveillance. In addition, the use of novel diagnostic tools could be utilised more widely in gynaecology.

Method: I will conduct two studies. In Study 1, I will recruit 275 women with endometrial cancer who have confirmed MSI in their biopsy sample. These women will be asked to provide urine samples and undergo vaginal sampling with the use of the Oricol™-device. These samples will then undergo MSI testing to see if it can be detected. In Study 2, I will explore the accuracy of the Oricol™-device and a novel next generation sequencing genomic panel to detect wider gynaecological pathology by recruiting 275 women with a range of gynaecological pathology.

Conclusion: If these methods prove effective, they could provide a novel, painless, and cheap way of providing diagnostic testing.