

Self-Sampling HPV genotyping/ prevalence test using DiagCor™ GenoFlow HPV array, DiagCor™ FT-PRO Auto and EvalynBrush



Solution-based DNA Extraction and HPV Genotyping

The samples received were pre-treated and genotyped by using the DiagCor™ GenoFlow HPV array test plus DiagCor™ FT-PRO Auto. Sample DNA can be directly extracted by a PSS magLEAD 6gC or magLEAD 12gC Automated Nucleic Acid Extractor, from 1 ml of each sample according to the manufacturer's instructions. The extracted DNA was then amplified by the generic PCR amplification process. **33 HPV genotypes** can be detected by using our advanced DiagCor™ FT-PRO Auto system.

DiagCor™ GenoFlow HPV array kit



DiagCor™ FT-PRO Auto



*QCMD EQA Programme Human Papillomavirus (PreservCyt) (2019)

PSS magLEAD 12gC
Patented "Magtration Technology"



- Fully automated
- Rapid and precise
- Multiple samples types using a single protocol
- Internal UV lamp for decontamination
- Optional external handheld barcode reader

Prevalence Study by using Self-Sampling method

Self-Sampling device, EvalynBrush which includes a brush with delicate flexible fibers specially developed for the purposes of self-sampling at home was employed in this study. A total of **752** self-collected clinical samples were received and analyzed in our collaborative laboratory in Hong Kong from January to September 2019. The ages of the patients ranged from 19 to 64 years, and the mean age was 32 years. **43.3%** (326/752) of the samples were HPV DNA-positive. Moreover, DiagCor™ performed HPV genotyping tests on **2841** positive clinical samples: liquid-based cytology (e.g. ThinPrep (Hologic) or SurePath (BD)) or cervical swab samples during the same period. Its data can be referred to our Application Note #920072002.

Our findings in Fig.1 showed that the most prevalent High-Risk and Low-Risk HPV types were HPV 52 (15.6%), HPV 58 (12%) and HPV 40/61 (12.3%), HPV 42 (11.7%) respectively among 326 HPV positive clinical samples, which agrees with the HPV prevalence distribution in Asia published by other researchers [1-5].

The application of self-sampling devices and DiagCor™ GenoFlow HPV array test with DiagCor™ FT-PRO Auto would favor both clinicians for women cervical cancer screening and researchers for prevalence study in the post-vaccination era.



Reference:

1. PLoS One, 2019, 14(1): e0210311.10.1371/journal.pone.0210311
2. BMC Infectious Diseases, 2015, 15, Article no: 257
3. Hong Kong Medical Journal 2014; 20(Suppl 6), S35-38
4. ISRN Virology, Volume 2013, Article ID 312706
5. PLoS ONE 2014, 9(9): e107573.10.1371/journal.pone.0107573

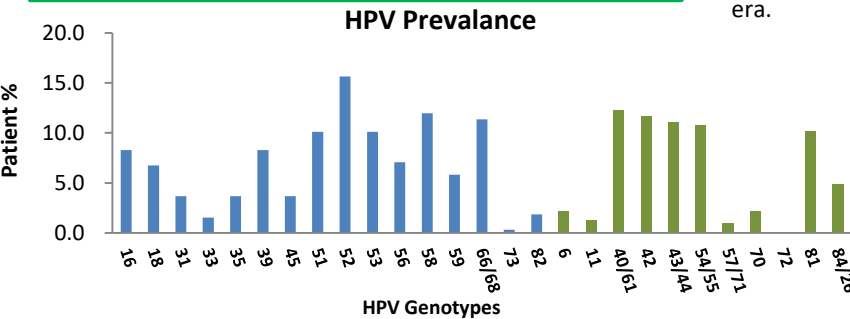


Figure 1: Distribution of genotypes among 326 positive clinical samples collected by self-sampling method

