

Veil-based self-collected cervicovaginal sampling for site-of-care sexually transmitted infections and primary HPV-based cervical cancer screening: a large-scale pilot feasibility study in Romania on 960 adult women

Abstract#12794

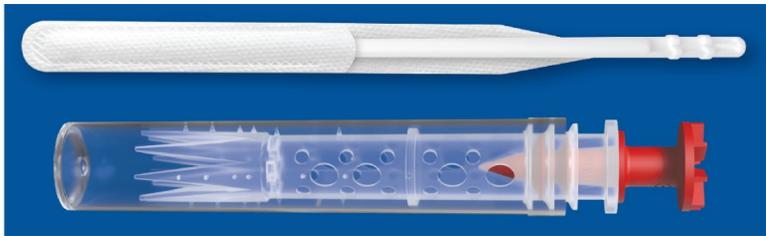
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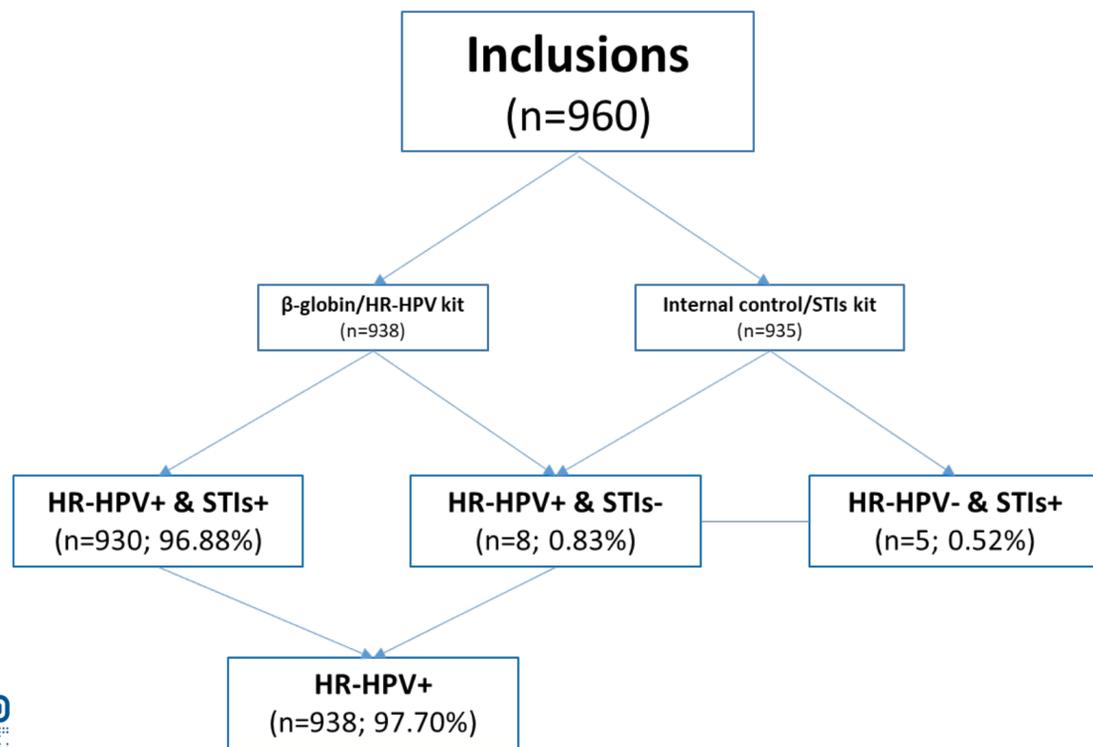


- Veil-based self-collection of female genital secretions for the detection of high risk-HPV (HR-HPV) and pathogens causing sexually transmitted infections (STIs) constitutes an attractive non-invasive and easy-to-perform method to increase the participation of women in cervical cancer and STIs screening programs.
- The feasibility of large-scale use of veil-based self-collected genital specimens for HPV and STIs was evaluated in real-life in adult women in Romania, for assessing molecular epidemiology of circulating HPV and STIs as well evaluating interactions between HR-HPV and STIs pathogens as possible cofactors.

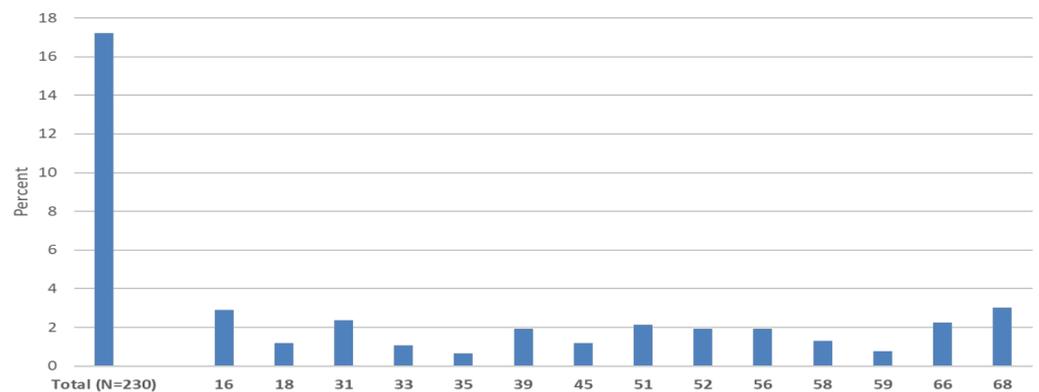
- In 2025, 960 adult (≥18 years) women attending public or private gynecologic centers thorough Romania were prospectively included.
- All participants received veil-based self-sampling kits (V-Veil UP2™, V-Veil-Up Production SRL, Pitesti, Romania).
- Participants were invited to use a dedicated digital platform for self-registration (gyntest.bio).
- Impregnated vaginal veil stored into dry UP2 Retrofitter™ Tube were delivered through regular logistics by UPS to the reference lab (Laboratoire Labio, Aix-en-Provence, France), at ambient temperature, for molecular analysis.
- Specimens underwent multiplex real-time PCR (Allplex™ assays, Seegene, Seoul, South Korea) to detect 14 HR-HPV types, and 7 major STIs, including Chlamydia trachomatis (CT), Neisseria gonorrhoeae (NG), Mycoplasma genitalium (MG), Trichomonas vaginalis (TV), Mycoplasma hominis (MH), Ureaplasma urealyticum (UU), and Ureaplasma parvum (UP).



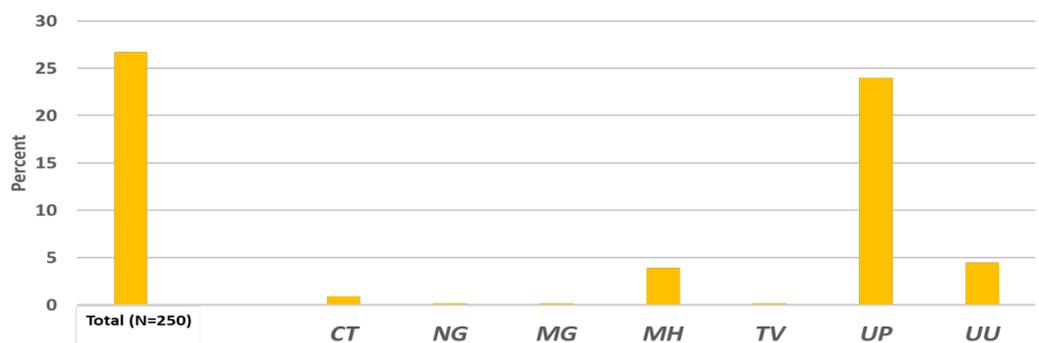
- High HR-HPV prevalence: 17.2% (161/938)
 - ✓ HPV-68 (3.0%)
 - ✓ HPV-16 (2.9%)
 - ✓ HPV-31 (2.3%)
- High STIs prevalence: 26.7% (250/935)
 - ✓ UP (24.0%)
 - ✓ MH (3.9%)
 - ✓ UU (4.5%)
 - ✓ CT (0.9%)
 - ✓ TV, MG and NG (0.2%)
- Gardasil-9® vaccine HPV: Only 48.7% (112/230).
- Multivariate analysis: Strong association between HR-HPV and:
 - ✓ CT [aOR: 4.52; p=0.02]
 - ✓ MH [aOR: 1.83; p=0.01]
 - ✓ UP [aOR: 1.67; p=0.01]
 - ✓ UU [aOR:2.58; p=0.01]



A. Distribution of HR-HPV



B. Distribution of STIs



Conclusions

- V-Veil UP2™ device-based self-collection combined with digital logistics platform: Highly feasible, effective, and community-friendly method for large-scale cervical cancer and STIs screening.
- Significant burden of HR-HPV and STIs in Romanian women.
- Strong association between STIs (CT, MH, U species) and HR-HPV, highlighting critical need for co-testing and integrated parallel management for CT, MH and U species alongside with oncogenic HPV.

Conflict of interest: None