Dr Lal PathLabs presents advanced Cervical Screen test

Test name
Cervical Screen - Cervical PAP Smear, Genital, Female (Liquid based) *Human Papilloma Virus (HPV) Detection & Genotyping, PCR, Qualitative

Sample
Collect Endocervical smears with a brush after inserting the speculum. Dip and swirl the brush completely into the Liquid Based Cytology (LBC) vial with liquid fixative. Mix thoroughly. Use Special Collection Kit, available from LPL only. Ship refrigerated. Do not freeze. Brief clinical history in Cytology Requisition Form is mandatory.

Clinical Use
Early detection of HPV and timely treatment leads to significant reduction in mortality

Methodology
Microscopy of Papanicolaou stained smears using LBC RTPCR.

Advantages of Cervical Screen test
• Studies have shown an up to 233% increase in detection of moderate to severe cellular changes over the conventional PAP smear *
• An affordable molecular test for detection and identification of 12 high risk (16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 68) HPV genotypes associated with cervical cancer and 2 low risk (6 & 11) HPV genotypes associated with genital warts
• Real time PCR TaqMan technology superior to SYBR green and gel based assays; more specific and sensitive
• CAP & NABL Accredited Test

Also Available
ONCOGENIC E6/E7 mRNA
Cervical Screening - HPV Genotyping

Cervical Cancer is the fourth most common cancer in women worldwide and the Human Papillomavirus (HPV) is the main causative agent for its development. HPV is a heterogeneous virus and a persistent infection with a high-risk HPV contributes to the development of cancer.

Cervical sampling is used to detect HPV infection after amplifying expression of the viral genome or mRNA and several FDA-approved HPV tests are commercially available. The best method for managing women with normal cytology findings who are tested positive for HPV.1

The current recommendation is to perform either a follow-up test 12 months later or genotyping of HPV 16 and 18. If the genotyping of HPV 16 and 18 is ‘negative’, co-testing after 12 months is recommended; if it is ‘positive’, further examination with colposcopy is recommended.1

![Diagram of Cervical Screening Algorithm]

**Recommended primary HPV screening algorithm**

HPV, human papillomavirus; hrHPV, high-risk human papillomavirus; ASC-US, atypical squamous cells of undetermined significance; NILM, Negative for Intraepithelial Lesion or Malignancy.

According to the National Comprehensive Cancer Network (NCCN) guideline, co-testing with the Pap and HPV tests is a first-line Cervical Cancer Screening method and it is recommended that women aged 30 to 65 years have these tests performed every 5 years.

<table>
<thead>
<tr>
<th>Population</th>
<th>Recommended Screening Method*</th>
<th>Management of Screen Results</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aged &lt;21y</td>
<td>No Screening</td>
<td>HPV-positive ASC-US or cytology of LSL or more severe: Refer to ASCCP guidelines.</td>
<td>HPV testing should not be used for screening or management of ASC-US in this age group.</td>
</tr>
<tr>
<td>Aged 21-29y</td>
<td>Cytology alone every 3y</td>
<td>HPV-positive ASC-US or cytology of LSL or more severe: Refer to ASCCP guidelines.*</td>
<td>HPV testing should not be used for screening in this age group.</td>
</tr>
<tr>
<td>Aged 30-65y</td>
<td>HPV and cytology &quot;cotesting&quot; every 5y (preferred)</td>
<td>HPV-positive ASC-US or cytology of LSL or more severe: Refer to ASCCP guidelines.*</td>
<td>Screening by HPV testing alone is not recommended for most clinical settings.</td>
</tr>
<tr>
<td>Aged ≥65y</td>
<td>No screening following adequate negative prior screening</td>
<td>HPV-positive ASC-US or cytology of LSL or more severe: Refer to ASCCP guidelines.</td>
<td>Women with a history of CIN2 or a more severe diagnosis should continue screening for at least 20 y.</td>
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</tbody>
</table>

ASCCP, American Society for Colposcopy and Cervical Pathology; ASC-US, a typical squamous cells of undetermined significance; CIN2, cervical intraepithelial neoplasia grade 2; HPV, Human Papillomavirus; LSL, Low-grade Squamous Intraepithelial Lesion.

* Women should not be screened annually at any age by any method.

References