

## Protocol for Cervical Cancer Prevention in Pakistan :

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### Introduction: The WHO is calling for the elimination of cervical cancer

In August 2020, in the 73rd World Health Assembly, WHO passed a resolution and officially launched the elimination strategy by setting Goals for All countries to achieve by **2030**:

- **90%** HPV vaccination coverage
- **70%** screening coverage
- **90%** access to treatment

### For Primary Prevention in Pakistan :

**HPV Vaccination:** (The HPV Vaccine has to be made available in Pakistan by the Government)

**Dosage for Bivalent Vaccine** (Cervarix): (Prevents 70% of Cervical cancer)

2 dose regimen : 0 & 6 months for girls 9-14 yrs (in school or just before leaving school) (ref 6)

3 dose regimen: 0, 1 & 6 months, for girls 15 -26 yrs of age, or more as indicated

**Dosage for Quadrivalent Vaccine** (Gardasil) & **Nonavalent Vaccine** (prevents >90% ca Cx):

2 dose regimen : 0 & 6 months for girls 9-14 yrs (in school or just before leaving school); 3 dose regimen: 0, 2 & 6 months for girls 15 – 26 yrs of age, or more as indicated

Any of the available vaccines may be employed

<b>Bivalent</b> <b>16 18</b>	<b>Quadrivalent</b> <b>16 18 6 11</b>	<b>Nonavalent</b> <b>6 11 16 18 31 33 45 52 58</b>
<ul style="list-style-type: none"> <li>• <b>9-14 yrs:</b> 0, 6 months</li> <li>• <b>&gt;15 yrs</b> 0, 1, 6 months</li> </ul>	<ul style="list-style-type: none"> <li>• <b>9-14 yrs:</b> 0, 6 months</li> <li>• <b>&gt;15 yrs</b> 0, 2, 6 months</li> </ul>	<ul style="list-style-type: none"> <li>• <b>9-14 yrs:</b> 0, 6 months</li> <li>• <b>&gt;15 yrs</b> 0, 2, 6 months</li> </ul>

### Secondary Prevention :

\***Regular Pap Smears / Liquid based cytology (LBC), HPV or VIA** screening should start after 3 to 5 yrs of marriage at 3 to 5 yearly intervals. VIA training should be mandatory

\*By the age of 30 years at least one Pap Smear/LBC/ HPV Testing or VIA screening should be done

\*Stop doing Pap smears at 65 years age if previous smears have been normal, and no other risk factors are present.

Lack of awareness and stigma associated with cervical cancer pose significant barriers to prevention. We need to play a greater role to create awareness amongst General Gynaecologists, Paediatricians , General physicians/ Family Physicians, women and general public.

**\*HPV Vaccination** should be added to the **EPI schedule**. Paediatricians should add HPV vaccination to the list of Vaccines to be administered on the Childs's vaccination schedule card. They should further advise those girls (and their mothers) who are not vaccinated early (age 9-14 years), that they must get vaccinated before marriage.

**\*Pre-marital consultation** with a gynaecologist or family physician is also to be promoted, so that she gets health and contraceptive advice, and HPV vaccination as well before marriage.

HPV vaccination is equally effective in *women 45-50 yrs who are HPV DNA negative at vaccination*

- HPV vaccination is effective in women that are *HPV seropositive at vaccination*
- Vaccinated women show *reduced recurrence rates after conization*
- Vaccination *safety is endorsed by all* international and national review boards
  - Current evidence suggests that from the public health perspective the bivalent, quadrivalent and nonavalent vaccines offer comparable immunogenicity, efficacy and effectiveness for the prevention of cervical cancer, which is mainly caused by HPV types 16 and 18
  - Prevalence of the HPV-associated (cervical cancer, other HPV-associated cancers, or anogenital warts)
  - Price, and programmatic considerations need to be addressed
  - HPV types 16 and 18 cause **70%** of Cervical cancer cases globally
  - The nonavalent HPV vaccine (9vHPV) was licensed in 2014 and protects against the next five most common cancer-causing HPV types (HPV 31,33,45,52,58) after HPV 16,18
  - Phase III clinical studies have demonstrated high vaccine efficacy (**>90%**) against cervical, vulvar, and vaginal precancers caused by these additional types, and have shown comparable immunogenicity to the shared genotypes to quadrivalent HPV vaccine (4vHPV)
  - Vaccine efficacy and antibody responses for 9vHPV are found to persist for > 5 yrs. Longer-term observational studies are ongoing to monitor long-term vaccine effectiveness
  - 9vHPV vaccination has the potential to prevent up to **93%** of cervical cancer cases, as well as a significant proportion of other HPV-related Anogenital cancers
  - Vaccination + screening is the most effective approach to reduce the incidence of cervical cancer
  - Modelling studies predict that high antibody titres could be sustained for decades & **Single dose** may be enough
  - Colposcopic guided diathermy LLETZ (Large loop excision of Transformation zone)/ excision Biopsy of CIN Lesions is most appropriate for young women who wish to retain fertility. Regular 6 monthly/ yearly follow up for recurrence
  - Hysterectomy for women who do not want further children & have other co-morbid

## References:

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