

# PROFESSIONAL O&G GUIDELINES ON HPV VACCINATION IN SINGAPORE

**Joint Statement of the:**    **Obstetrical & Gynaecological Society of Singapore (OGSS)**  
                                         **Society for Colposcopy and Cervical Pathology of Singapore (SCCPS)**  
                                         **College of Obstetricians & Gynaecologists, Singapore (COGS)**

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The aim of this guideline is to provide information, based on clinical evidence where available, on the use of the HPV vaccine. In Singapore, the HPV vaccine is licensed for use in girls and women aged between 9 and 26 years. There is recent evidence that clinical utility is not limited to this age group. However, it must be emphasized that the use of the vaccine in such situations is currently considered off label.

## **Introduction**

Cervical Cancer is the 7<sup>th</sup> commonest cancer among women in Singapore.<sup>1</sup> Almost 100% of cases have been attributed to oncogenic Human Papilloma Virus (HPV) infection of which types 16 and 18 account for up to 70% of all cervical cancers.<sup>2</sup> Oncogenic HPV is also implicated in the development of other cancers including neoplasms of the vulva, vagina, anus, penis as well as of the head and neck. HPV types 6 and 11 though non-oncogenic account for 90% of genital warts.

Currently 2 vaccines are available in Singapore: Gardasil® and Cervarix®. Gardasil® is licensed for use in girls and women aged 9 to 26 years whereas Cervarix® is licensed for girls and women aged 10 to 25 years.<sup>5</sup> The efficacy for both vaccines has been demonstrated in large Phase III randomized controlled trials involving healthy young women.<sup>3,4</sup> The vaccines are highly efficacious against HPV 16/18 related pre-cancerous lesions. However, long term efficacy is still being evaluated.

Both vaccines are generally safe and well tolerated and no serious adverse events have been documented. Local side effects such as pain, swelling, itching and redness at the site of injection are common.

## **Recommendations**

### **Vaccination of Girls, Adolescents and Young Women**

The Ministry of Health, Singapore recommends vaccination for girls and women aged between 9 and 26 years.<sup>5,6</sup>

### **Vaccination of Women who have ever had sexual intercourse (<26 years old)**

For maximal benefit, the vaccine should be given before the onset of sexual activity, as it does not protect against pre-existing HPV infections. However, sexually active women can be vaccinated.

Women who are sexually active are at risk of HPV infection, hence these women should be advised that the vaccine may be less effective compared to women who have had no previous HPV exposure at the

time of vaccination.<sup>7,8,9,10</sup> If infected by one HPV type, vaccination confers protection against other HPV types for which she has not been exposed to.

### **Vaccination of Women above the age of 26 years**

The value of HPV vaccination beyond 26 years has not yet been fully clarified, however women can be provided with information to make an informed decision about the costs and benefits of vaccination.

Women up to 45 years of age have been shown to exhibit strong immune serological response to the Cervarix® vaccine.<sup>11</sup> Early data from randomised trials testing the Gardasil® vaccine in women between 24 years and 45 years have demonstrated a high vaccine efficacy against HPV related infection or CIN compared to placebo.<sup>12</sup>

### **HPV DNA Testing and Pap smear screening**

Testing for HPV DNA is not necessary prior to vaccination. Serologic tests for HPV are currently not available commercially.<sup>15,17</sup>

The HPV vaccine is not a substitute for cervical cancer screening. It must be emphasized that women aged 25 years and above, who are sexually active or who have ever had sex, must continue with pap smear screening once every 3 years regardless of their HPV vaccination history.<sup>6</sup>

### **Vaccination of Women with current HPV infection or current Cervical Intraepithelial Neoplasia (CIN) or previously treated CIN**

Women with current HPV infection, current CIN or previously treated CIN can be given the HPV vaccine.

However, these women must be informed that the HPV vaccine is not therapeutic for existing infection or CIN, and the benefits of the vaccination may be limited to the prevention of future HPV infection. The role of HPV vaccination on the risk of recurrence of CIN after initial treatment is still a subject of research.

Clinical follow-up according to Cervical Screen Singapore guidelines must continue in these women.

### **Vaccination of Immunocompromised Women**

Vaccination can be given to women who are immunocompromised e.g. those who are on steroids or have HIV infection.

However, these women should be informed that their immune response to the vaccine may be lower compared to immunocompetent women.<sup>13,14</sup>

### **Vaccination of Women who are pregnant or lactating**

HPV vaccine is not recommended for use in pregnancy. Women who become pregnant before completing the vaccination schedule should defer the subsequent doses until the pregnancy is completed.<sup>7,8,9,15</sup> There is no need to restart the entire vaccination schedule but there should not be a delay of more than 12 months between the 2<sup>nd</sup> and 3<sup>rd</sup> dose.

Lactating women can be vaccinated. The HPV vaccine is an inactivated vaccine which does not contain a whole virion, hence it does not affect the safety of breastfeeding for mothers or infants.<sup>7,16</sup>

## Vaccination of Males

Males can be vaccinated on request.

Early data from a phase 3 double blind randomised study involving males aged 16 to 26 years show that the Gardasil® vaccine can protect men against genital warts. The possibility that this vaccine also protects men from PIN or HPV-related cancers, like anal and penile cancers is still being evaluated.<sup>18,19</sup>

Males who do not have clinical evidence of HPV infection may benefit the most from the vaccine.

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## **Disclosure**

A/Prof. Jeffrey Low and Dr. Quek Swee Chong are members of the MSD HPV Vaccine advisory board. All other members do not have any conflict of interest to declare.