

## **Gardasil (HPV) Vaccine**

### **The perfect platform for vaccinating your female adolescent patients**

#### **Human Papillomavirus (HPV) is THE cause of cervical cancer.**

It's as simple as that! By way of comparison, lung cancer is only associated with cigarettes 70% of the time but cervical cancer is caused by HPV 100% of the time.

**Gardasil** is Merck's quadravalent HPV vaccine which protects against HPV Types 6, 11, 16 & 18. While you probably have heard the numbers before it is worthwhile to hear them again. In the United States there are close to 10,000 newly diagnosed cases of cervical cancer and 4,000 deaths from cervical cancer each year. While several HPV types are associated with cervical cancer, Types 16 and 18 causes the majority of cervical cancer and the Gardasil vaccine has been shown to prevent over 70% of cervical cancer. In addition HPV Types 6 and 11 cause almost all anogenital warts and Gardasil reduces these lesions by 90%.

While few practitioners doubt the benefits of Gardasil, many offices struggle with how to fit it into an ever increasingly crowded adolescent immunization schedule. The recommended intervals between Gardasil doses are 2 months between Dose #1 to Dose #2, and 4 months between Doses #2 to Dose #3. While Gardasil is approved from ages 9 years to 26 years old most practices follow ACIP, AAP, AAFP and ACOG recommendations and give the vaccine starting at age 11 years old. In actuality, Gardasil provides the framework to schedule your female patient adolescent vaccines.

#### **11 is the new 5!**

Don't get me wrong - there are plenty of differences between an 11 year old and a 5 year old but what has been a longstanding dramatic (and sometimes traumatic) 5 year well visit with occasional tears, lots of candy and toy bribes has experienced a déjà vu with 11 year old patients. For the 11 year old negotiations about computer access and texting may replace lollipops. That being said, the 11 year old presents the best shot (pun intended) to initiate adolescent vaccines. In most states 11 year olds preparing to enter 7<sup>th</sup> grade are usually obliged to have forms for school nurses on the look out for up-to-date immunizations.

#### **Gardasil is the ideal platform to immunize adolescent patients**

In addition to providing Gardasil to your 11 year old female patients, Sanofi's Meningitis vaccine Menactra and Tetanus-Pertussis booster (Adacel) are also recommended and typically given at this age. Additionally, Hepatitis A (Merck's Vaqta) vaccine catch-up is also recommended beyond 12 months of age and 11 years old presents a great immunization opportunity (along with the second dose of Varivax if applicable). If you have flexibility (essentially because school vaccine deadlines permit) regarding the Tdap and Mening administration you can limit the number of vaccines given at the 1<sup>st</sup> adolescent vaccine visit to three "shots". The 2<sup>nd</sup> Gardasil dose (2mo later) and 3<sup>rd</sup> dose (4mo later) visits would then only require two "shots" each.

Don't forget it is now recommended to observe girls for 15 minutes after their HPV dose (typically for risk of fainting). A suggested immunization schedule would be:

**Gardasil (HPV) series structured with Hep A, Tdap and Mening**

<b><u>Day# 0</u></b>	<b><u>2 Months</u></b>	<b><u>6 Months</u></b>
HPV#1	HPV#2	HPV#3
*Tdap	*Mening	<i>[catch up opportunity if Tdap or Mening still required]</i>
*HepA#1	*Varivax	*HepA#2

If you do not need to give Hepatitis A or the second dose of Varivax you can easily time the vaccines such that no more than two doses are given per visit.

**Gardasil (HPV) series structured with Tdap and Mening (not including Hep A)**

<b><u>Day# 0</u></b>	<b><u>2 Months</u></b>	<b><u>6 Months</u></b>
HPV#1	HPV#2	HPV#3
*Tdap	*Mening	<i>[catch up opportunity if Tdap or Mening still required]</i>

(\* Tdap and Mening each can be given once during these 3 visits, Mening could precede Tdap if desired. If preferred Tdap and Mening can be administered simultaneously along with HPV and/or HepA).

**Teenagers and Beyond**

Of course 12, 13, and 14 year olds all the way up to 26 year old females should also receive the Gardasil vaccine. Yearly well/preventative visits lend themselves to a review of the patient's immunization record and should result in the patient being immunized if they have not yet received Gardasil or completed the series. Remember that sexual activity, previous abnormal pap tests and even a history of high-grade cervical dysplasia and cervical cancer do not prohibit the use of the vaccine. The HPV vaccine can also serve as a means to recall seldom seen patients from teens thru 26 years old for a preventive/well visit along with the initiation or completion of the Gardasil series.

**Do the Right Thing**

While Gardasil can help to prevent approximately 7,000 cases of cervical cancer per year and close to 3,000 related deaths it is also important to realize that a substantial number of the 330,000 annual cases of high grade and 1,400,000 annual cases of low grade cervical dysplasia could also be prevented. Additionally 90% of the 1,000,000 annual cases of anogenital warts could also be prevented. We should continue to work to prevent other vaccines preventable diseases per CDC recommendations but few other diseases exact such a toll on our population. On a related note, male study results are soon to be announced but for now let's all do the right thing and prevent as much of this horrible disease as possible.

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