**HPV Questions and Answers from Pink Book Webinar**

**September 12, 2018**

**Question 1:** What causes the higher percentage of side effects such as headache and syncope in this vaccine vs. other vaccines?

**Answer 1:** Human papillomavirus vaccine has a higher rate of adverse reactions like local pain at the injection site compared with other vaccines and, while the reason is not known for certain, it is thought that maybe the presence of an adjuvant is responsible. Rates of syncope are high with this vaccine, but this is because more doses of this vaccine are recommended (3-dose series) than for other adolescent vaccines (Tdap – 1 dose, MenACWY – 2 doses).

**Source:**

<https://www.cdc.gov/mmwr/pdf/rr/rr6305.pdf>

**Question 2:** What is the cervical cancer screening schedule for women over 65 years of age as relates to HPV testing?

**Answer 2:** If a woman is older than 65 years, she may not need to be screened anymore, particularly if she has had normal screening test results for several years or if she has had her cervix removed as part of a total hysterectomy for a non-cancerous conditions (like fibroids).

**Source:**

<https://www.cdc.gov/cancer/cervical/basic_info/screening.htm>

**Question 3:** How long can HPV vaccine live on surfaces like toilet seats and handles?

**Answer 3:** The role of transmission from these surfaces is not known. There are strains that cause skin warts and strains that cause cancer. For strains that cause cancer, the virus is transmitted by contact with mucous membranes, so the virus presumably does not last very long on the skin. Transmission has been observed via a laser treatment for HPV infection between two patients. One study showed that HPV (not clear which strain) could last 7 days at room temperature.

**Source:**

<https://www.ncbi.nlm.nih.gov/pubmed/9333171>

**Question 4:** If a teenager has not been vaccinated, can they receive the vaccine prior to sexual activity and, if so, for how long does the individual have to wait before sexual activity?

**Answer 4:** The vaccine should be administered prior to sexual activity—optimally, years before. Although there are no vaccine-specific data on this, as a rule of thumb, vaccines generally take 2 weeks after the final dose in the series to establish full protection.

**Source:**

<https://www.cdc.gov/mmwr/pdf/rr/rr6305.pdf>

**Question 5:** Are there screening tests available for men or anything being developed to screen for oropharyngeal cancers?

**Answer 5:** There are screening tools for anal cancer for men and women, but no commercially available oral screening tests.

**Question 6:** Can males receive the vaccine through their entire 26th year?

**Answer 6:** Yes, there is a full recommendation for all males through the 21st year, a full recommendation for males who experience a high burden of disease through the 26th year, and a permissive recommendation for males lacking the risk factors for a high burden of disease from age 22 years through 26 years.

**Source:**

<https://www.cdc.gov/mmwr/pdf/rr/rr6305.pdf>

**Question 7:** What is the minimum interval between dose 1 and dose 2 of the 2-dose series?

**Answer 7:** We prefer you wait at least 6 months between the 2 doses, but the minimum interval (the interval at which we count the dose) is 5 months.

**Source:**

<https://www.cdc.gov/mmwr/pdf/wk/mm6411.pdf>

**Question 8:** If someone receives the first dose of HPV vaccine at age 9 years, can they receive the second and final dose at age 26 years?

**Answer 8:** For someone who is eligible for a 2-dose series, this would be an acceptable interval, given that the first dose was administered between 9 through 14 years.

**Source:**

<https://www.cdc.gov/mmwr/pdf/wk/mm6411.pdf>

**Question 9:** If someone who is healthy receives the first dose of vaccine 4 days before the 15th birthday, are they still eligible for the 2-dose series?

**Answer 9**: We would accept a 2-dose series as a complete series in this circumstance.

**Source:**

 <https://www.cdc.gov/mmwr/pdf/wk/mm6411.pdf>

**Question 10:** A patient inadvertently had a fourth dose of HPV vaccine and then developed a painful lump on his penis. It resolved on its own. Is it possible this was due to the vaccine?

**Answer 10:** While local reactions like pain are common at the site of vaccination, the type of reaction described is not associated with this vaccine, making it less likely that an additional dose would cause it. Also, there have been studies in patients receiving more than 3 doses (usually a mixed 4vHPV and 9vHPV series) without such symptoms occurring. I would recommend a discussion with the provider on this symptom and sign because it is likely not due to the vaccine.

**Source:**

<https://www.cdc.gov/mmwr/pdf/rr/rr6305.pdf>

**Question 11:** Is it more effective to give the second dose (of the 3-dose series) 1 month after the first dose as opposed to 2 months?

**Answer 11**: ACIP recommends the second dose 1–2 months after the first dose. It doesn’t really matter if it is administered at 1 vs. 2 months. Just be sure there is a minimum of 4 weeks between the first and the second dose.

**Source:**

<https://www.cdc.gov/mmwr/pdf/rr/rr6305.pdf>

**Question 12:** Should we only give the HPV vaccine to males 22–26 years old if they have a high-risk condition (HIV, immunosuppression, or men who have sex with men [MSM])?

**Answer 12:** This is CDC’s recommendation, based on the burden of disease in males. However, you may give one or more doses of HPV vaccine to a male 22–26 years of age if they do not have one of these conditions.

**Source:**

<https://www.cdc.gov/mmwr/pdf/rr/rr6305.pdf>

**Question 13:** Should a 30-year-old man who has never had sexual intercourse be vaccinated?

**Answer 13:** ACIP doesn’t recommend the vaccine for males older than 26 years of age. The vaccine is not licensed for anyone older than 26 years of age. However, a conversation between patient and provider for off-label use is always an option—the vaccine might not be covered by insurance. Also note that one can still acquire and transmit the HPV virus sexually without having sexual intercourse.

**Source:**

<https://www.cdc.gov/mmwr/pdf/rr/rr6305.pdf>

**Question 14:** I know there is no recommendation for additional doses of HPV vaccine if someone has completed a series of 4vHPV. How much protection will additional doses of vaccine provide?

**Answer 14:** Protection will be limited to the four strains in the vaccine. However, studies show that doses of 9vHPV do not appreciably boost an immune response (even to the five strains not in 4vHPV) and there are high rates of local reactions. Also, cost-effectiveness studies based on the price of the vaccine and burden of disease demonstrate that additional doses are not cost-effective. This is why ACIP’s recommendation was not to administer additional doses.

**Source:**

[www.cdc.gov/hpv/downloads/hcvg15-ptt-hpv-2dose.pdf](http://www.cdc.gov/hpv/downloads/hcvg15-ptt-hpv-2dose.pdf)

**Question 15:** If someone’s HPV vaccine series is based on 2 doses of 4vHPV and 1 dose of 9vHPV, will they have the same protection against the five strains in 9vHPV that are not in 4vHPV?

**Answer 15:** We don’t know for sure the relative effectiveness of partial series coverage (since it is challenging to interpret serology, and effectiveness was measured with a complete series). However, based on limited studies, the burden of disease in men and women, and the cost effectiveness of restarting the series, CDC considers a mixed complete series to be a complete series with no recommendations for additional doses.

**Source:**

[www.cdc.gov/hpv/downloads/hcvg15-ptt-hpv-2dose.pdf](http://www.cdc.gov/hpv/downloads/hcvg15-ptt-hpv-2dose.pdf)

**Question 16:** Can you comment on claims of ovarian failure among vaccine recipients?

**Answer 16:** Since HPV vaccine has been licensed in the United States, CDC and FDA have continually monitored its safety. CDC and FDA have found no reason to be concerned that HPV vaccine may be causing premature ovarian failure (a condition in which a woman’s ovaries no longer function as they should).

As of July 2013, VAERS has only received two reports of premature ovarian failure following receipt of HPV vaccine in the United States. VAERS has received six reports of related conditions. Because there were no patterns among these reports, it is considered unlikely that ovarian failure is associated with HPV vaccination. However, CDC continues to monitor closely for this condition following receipt of HPV vaccine. It is important to note that before HPV vaccine was licensed, its safety was extensively studied in clinical trials These trials found no difference in amenorrhea (absence of a menstrual period in women of reproductive age) between recipients of HPV vaccine compared with those receiving a placebo (a harmless pill). Premature ovarian failure was not a noted outcome.

**Question 17.** Does HPV vaccine prevent oropharyngeal cancers?

**Answer 17:** HPV vaccine is not licensed for prevention of oropharyngeal cancer; however, 70% of oropharyngeal cancers are caused by HPV, so it is expected that some of these cases will be prevented by 9vHPV. In 2015, 18,226 cases of oropharyngeal cancer occurred in the U.S.

Journal of the National Cancer Institute 2015;107:djv086.

**Question 18:** Have there been current clinical trials for vaccination of older men and women?

**Answer 18:** Yes, and some of the results have been presented to ACIP, but currently, the vaccine is recommended for persons 11–26 years of age.

<https://www.cdc.gov/mmwr/pdf/rr/rr6305.pdf>

**Question 19:** What if someone is older than 26 years and they are insistent on starting the vaccination series?

**Answer 19:** It is not licensed at this age and CDC doesn’t have data that the vaccine is effective at this age, so there is no recommendation to vaccinate at this age. It comes down to a decision between provider and patient. Insurance might not pay for this vaccine at this age.

<https://www.cdc.gov/mmwr/pdf/rr/rr6305.pdf>