

# Making the C.A.S.E. for the Human Papillomavirus Vaccine

## *How to Talk to Parents and Adolescents*

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Human papillomavirus (HPV) vaccination rates have been stagnant or falling for females, and vaccination efforts are off to a poor start for males. Despite recommendations by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices and other authorities that all adolescents receive the vaccine at 11 to 12 years of age, the latest data indicate no more than 32% of females ages 13 to 17 years have completed all three doses; the rate for males is less than 8%. Most parents are unfamiliar with HPV and are unaware that their children may one day become infected. In addition, they may not know that the vaccine is recommended. Others may question its safety and whether their child needs it; or they may think their child is too young to be vaccinated. Whether adolescents get the vaccine depends largely on their clinician: A clinician who directs a parent to have their child vaccinated will be more successful in ensuring that child is vaccinated than those who merely tell parents the vaccine is available. The Minnesota Chapter of the American Academy of Pediatrics teaches clinicians to address vaccine hesitancy among parents using the C.A.S.E. approach. This approach is not just for parents; it also can be used to address adolescents' concerns in a persuasive manner.

The Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices (ACIP) and the American Academy of Pediatrics have recommended routine vaccination against human papillomavirus or HPV for all adolescents at 11 to 12 years of age.<sup>1-3</sup> Of all the vaccines we routinely recommend, this one is faring the worst. Since the ACIP began recommending universal HPV vaccination of females in 2006, the vaccination rates in the United States among this population are still nowhere near what one might have expected.<sup>4</sup> Completion of the three-dose series for females 13 to 17 years of age in 2008 was 17.9%.<sup>5</sup> By 2010, it had

improved to 32.0%.<sup>6</sup> However, the rates of dose-specific vaccination did not improve from 2011 to 2012, and the series completion rate actually fell.<sup>7</sup>

Six years later, in 2011, the ACIP made similar recommendations for males.<sup>3</sup> In 2012, no more than 8% of males 13 to 17 years of age had completed the three-dose series and only 20.8% had received one dose.<sup>7</sup> That latter rate is lower than it was for females of the same age in 2007 (25.1%), one year after the vaccine was first recommended.<sup>8</sup>

The HPV vaccination rates are quite different than those for two other vaccines for teens (meningococcal and Tdap) that were also launched in 2005-2006. In 2012, the rate for just one dose of HPV in females 13 to 17 years of age was 53.8%

compared with 84.6% for Tdap and 74% for meningococcal vaccine.<sup>7</sup>

Recent studies indicate parents' concerns may lie at the heart of our failure to vaccinate adolescents against HPV.<sup>4,9</sup> Adolescents' concerns probably matter as well, and we are studying this. Clinicians must find a way to address both of their concerns efficiently and effectively.

### HPV and the Vaccine

Most parents and adolescents are unfamiliar with HPV and the infections various strains cause. Some HPV strains cause common warts and others genital warts. The strains that most concern us, however, are silent and cause no symptoms. When

the infections persist, they can cause cellular changes that lead to precancerous and then cancerous conditions.

Experts hold that in the United States, 6.2 million new HPV infections occur each year,<sup>10</sup> and by age 50, nearly 80% of all sexually active adults have been infected with the virus.<sup>11</sup> Epidemiologically, adolescents appear to be at the highest risk for HPV infections. Although surveys indicate only 6.2% of adolescents have had a sexual experience before age 13, 43.8% of ninth grade boys and girls report having had a sexual experience.<sup>12</sup> HPV infections result in approximately 26,000 new cancers in this country each year; about 12,000 of those are cervical cancers. The others involve the vagina, vulva, penis and anus as well as the head and neck.

HPV is a capsid-containing, double-stranded DNA virus with two genes that make early proteins E6 and E7; these appear necessary for conversions of host cells to cancer.

The HPV vaccines consist of the proteins that make up the capsids of the virus with none of the proteins associated with host cellular changes and the nucleic acids.<sup>13,14</sup> The FDA licensed the first HPV vaccine in this country in 2005.<sup>15</sup> That vaccine, Gardasil, is manufactured by Merck and Co. and consists of four strains. Cervarix, manufactured by GlaxoSmithKline, was the second vaccine to be licensed. It received FDA approval in 2009 and consists of two strains.<sup>1</sup> The ACIP first recommended Gardasil for females in 2006 with permissive use of the vaccine for males.<sup>15</sup> With the licensure of Cervarix, the ACIP included it in its recommendation for females but not for males, as it offered no direct protection for them against the genital wart stains of 6 and 11.<sup>1</sup> When the ACIP then made its universal recommendation for males in 2011, it only included Gardasil.<sup>16</sup>

Both vaccines come as a sterile liquid in a single-dose vial or syringe and are given intramuscularly.<sup>13,14</sup> No preservatives such as thimerosal are used; therefore, no multi-dose vials exist. Both brands include adjuvanting with aluminum compounds. Vaccination with either brand involves

FIGURE 1

### Addressing the Adolescent before Applying C.A.S.E.

**Clinician:** (Looking at the teen) Hi, Sean, I'm Dr. Jacobson, one of your doctor's colleagues. I don't think we've met before. Who did you bring with you today?

**Teen:** That's my mom.

**Clinician:** Hi. Would you help me out and switch places so that Sean and I can talk face to face?

**Clinician:** (Looking at the patient and then the parent after the patient and parent rearrange themselves) I would like to begin by asking you what concerns you have today and what you would like to get out of today's visit.

**Teen:** My allergies, I guess.

**Clinician:** (Looking at parent) Anything else?

**Parent:** No, just that for today.

**Clinician:** Thank you, I'll get a little more information, and then I would like to visit with you (indicating the teen with eye contact) alone. After that, we can regroup and I'll do a brief exam of your head, neck and chest, and discuss my recommendations for management. Following that, we can come up with a plan for your allergies. At that time, I'll recommend you get the flu and the HPV vaccines. Sean, what do you think about this plan for our visit today?

three doses given over six months, with one to two months between the first and second doses and six months between the first and third doses (with at least 24 weeks between the first and third dose and 12 weeks between the second and third dose).

Prelicensure studies show the vaccine is effective in females for preventing cervical cancer, cervical intraepithelial neoplasia and genital warts.<sup>13,14</sup> They also demonstrate that it is safe. Post-licensure studies found associations only with transient syncope, leading to recommendations to inform patients of the potential for syncope and the symptoms associated with it, and to observe the patient for 15 minutes following vaccination.<sup>17,18</sup> The vaccine is contraindicated in patients who have had serious allergic reactions to previous doses or to the vaccine components.<sup>3</sup> It is also not recommended for females known to be pregnant or for patients with moderate to severe illness. Both Gardasil and Cervarix are known to cause transient, and primarily mild, injection-site erythema, swelling, induration and tenderness.

### Involving Both Parents and Adolescents in Discussions

A recent study that made headlines in clinical journals and newsletters demon-

strated that clinicians who directed their patients to undergo vaccination enjoyed higher rates of uptake than those who simply indicated that the vaccine was available.<sup>19</sup> The authors concluded that parents seek direction and advice and not simply information and opportunity. Other studies have shown repeatedly that parents, even those who question vaccination's efficacy, safety and need, appeal to their clinicians for advice and information concerning vaccination.<sup>20,21</sup> The National Immunization Survey-Teen (NIS-Teen) shows that adolescents whose parents recall physician recommendations for HPV have higher rates of vaccination than those who do not; however, the rates for those whose parents recall the recommendations are only around 40%.<sup>4</sup>

Although discussing the issue with parents is important, clinicians also need to recognize the adolescent's role in the decision about whether to be vaccinated. By first focusing on the teen, they may be able to achieve greater success. Here's the approach I take with teens 13 years and older.

I start by greeting the adolescent (and then the parent) and acknowledging that the visit is primarily for his or her benefit even if the parent was the one who made the appointment. If I do not already know

the family, I ask the patient to introduce me to the parent. After the introductions, I ask the patient about his or her chief complaint and what he or she hopes to get out of the visit. Often, the adolescent tells me the visit was driven by the parent's concerns. It is important to know this. (See Figure 1 for a sample dialogue.)

Once the teen and his or her parent have articulated what they both would like to get out of the visit, I let them know we will take a history and do a physical exam, describe any testing that's likely to be needed and mention any vaccines that are due. It's important to bring up the issue of vaccines right away because I need to know from the outset if there are hesitations on the part of the adolescent or the parent. If there are, I make it clear that I would like to address those hesitations.

At that time, I let the patient and parent know if I want to meet with the adolescent alone for part of the visit. I usually do this for patients starting at age 13. That way, I

can address the adolescent's vaccine hesitations before dealing with any the parent may have.

### Using the C.A.S.E. Approach

I recommend using the C.A.S.E. approach to have successful discussions with both parents and adolescents. Created by Alison Singer, founder and president of the Autism Science Foundation and the mother of an autistic child, it is a way of talking to vaccine-hesitant parents. C.A.S.E. stands for Corroborate, About Me, Science and Explain/Advise.<sup>22</sup> It keeps the discussion focused and brief, which is important, given the time allotted for the visit and the fact that adolescents don't want these visits to take longer than they have to.

As a clinician, you first Corroborate the parent's or teen's concern, working to understand their questions and find common ground at least in the underlying values driving their concerns. Next, you talk About me—tell what you have done

to learn about the concern and the facts relating to it. Then you summarize the Science as it relates to the concern. Finally, you Explain your advice by framing it in terms that relate to the parent's or adolescent's concern, their underlying shared values and your own knowledge. This way, you work to persuade rather than merely inform, combining pathos, ethos, and logos—elements of rhetoric taught by Aristotle. (See Figure 2 for an example of using C.A.S.E. to address an adolescent's concern.)

Using this approach, you first try to find common understanding and common ground. "Corroborate" the parent's or adolescent's concern by determining specifically what it is and then find some basis for it. This may seem like foreign territory, but clinicians actually practice this all the time when they say:

"Tell me exactly what is bothering you."

"I can see why you might worry about that; a number of my patients' parents have raised that same concern."

"I actually thought the same thing when I first heard of this recommendation."

Such phrases can help you find common ground with your patients or their parents. You can then build on this by saying things such as:

"Ultimately, you and I both want the same thing: that your adolescent doesn't suffer unnecessarily pain or discomfort."

"You and I both want your teen protected against things that might harm her."

"Neither of us wants to give this vaccine too early; we want to time it just right."

Aristotle refers to this as pathos. It is the compassionate connection-building that provides the basis for advising and ultimately persuading.

Many clinicians, especially those who do primary care, may struggle with the "about me" part. The idea is for you to acknowledge what you have done to build your knowledge base. You might say things like:

"As a result of my own questions, I've read the studies and attended lectures on the topic."

"I've contacted the experts and asked them those questions myself."

FIGURE 2

### Using C.A.S.E. with an Adolescent

**Teen:** I don't want any vaccines today.

**Parent:** I promised him there'd be no shots.

**Clinician:** (Turning to teen to Corroborate) May I ask why you don't want any vaccines?

**Teen:** They hurt!

**Clinician:** (Pauses and looks at the teen) I agree that some do. And I understand why you'd like to avoid any unnecessary pain. I wish I had vaccines that didn't hurt. (Talking About Me) As a pediatrician, I have read a lot about vaccines, including the problem of injection pain. And I know about the pain firsthand because I get shots every year as a result of my job.

**Teen:** So you know what I'm talking about.

**Clinician:** (Moving on with Science) I also know about an option you might want to consider. The flu vaccine comes as either a shot or a nose spray. If you go with the nose spray, you would only get one injection today with the HPV.

**Teen:** Up my nose? Really?

**Clinician:** Or you could go with the injection. If I were your age, I'd choose the nose spray. Studies I've read indicate that it often works better with teens than the shot.

**Teen:** I'll do the nose spray. Can I do it for the other one, too?

**Clinician:** (Explain/Advise) I don't have any choice for the HPV vaccine, but I do know the HPV vaccine prevents a lot more pain and harm than it causes. I've read a great deal and attended a number of lectures regarding the HPV vaccine. I really recommend that you get them today. In my experience, my patients your age handle the pain of that shot easily. It goes away quickly. If I were in your shoes, I'd get the shot.

By doing this, you reassert your professional standing as an informed advisor, someone to be trusted. Aristotle refers to this as ethos management.

Physicians generally feel comfortable addressing the science. However, we often make our communications science lectures and then complain that our patients and their parents don't understand what we're saying. Clinicians need to summarize the science rather than wax eloquently about it. For example, you might say things such as:

"Studies now involving hundreds of thousands of teens demonstrate the vaccine's safety with no development of injury or disease."

"Scientific investigations show that to successfully immunize we need the three doses completed early in adolescence to achieve the highest rates of immunity."

"Surveys tell us just how common and insidious HPV infection is; most will never know they were infected or when they clear it."

"So far, studies going back long before the vaccine was licensed indicate no reason to believe the vaccine will wear off."

Better yet, share with the parent and adolescent a story to which they both can relate. For example, I tell my vaccine-hesitant parents about the heart-breaking experience of one of my patients. She grew up and married the man of her dreams. When she was pregnant with their first child, the woman learned she had cervical cancer. After giving birth, she underwent treatment that saved her life but ended her hopes of bearing more children. Aristotle refers to this transfer of information as the *logos*.

By explaining/advising, you can make your recommendations and reasons for them clear. Base what you say on the common ground you established earlier and acknowledge both the parent's and the adolescent's concerns and how the science addresses them. Then make your recommendations with heartfelt emotion. (See Figure 3 for an example of using C.A.S.E. with a parent.)

## Conclusion

On December 2, 2010, Healthy People 2020 set a national goal of having 80% of females 13 to 15 years of age complete the three-dose HPV vaccine series.<sup>23</sup> We currently are nowhere near achieving that with females and have an even longer ways to go with males. To overcome parental and patient concerns about this vaccine, clinicians will need to become informed about the need for it as well as its safety and effectiveness. Furthermore, they will have to learn how to effectively communicate their recommendations to teens and their parents with passion, authority and evidence. The C.A.S.E. approach provides a brief, structured way to do just that. ■■■

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FIGURE 3

### C.A.S.E. and the Parent

**Parent:** I don't see why the HPV vaccine is recommended now. He's too young for it.

**Clinician:** (Looking at the parent and then the teen to Corroborate) I could see why your mom or dad would think that. (Looking at parent) Many parents initially have that reaction, until I explain to them what the experts say.

**Clinician:** (Pausing and then continuing with About Me). I do read studies and attend lectures from the experts who study HPV and the vaccines. Preventing disease is much better than trying to treat disease. This is important to me and my patients. (Science) What I learned is that we recommend the vaccine routinely now at age 11 or 12 years of age—years and years before one might need the protection. We do this for a number of reasons.

(Looking at teen) One reason is because you get a far better response the younger you are. Now is better than when you are 18 or 20. A second and third reason is that this is a long-lasting vaccine, but one needs all three doses before one gets exposed. It's hard to schedule all these doses, and busy teens and their parents have a really hard time working them into the schedule. (Explain/Advise) Since it's long-lasting, we get started as soon as we can. Because the CDC has permitted starting the vaccine in 9-year-olds, that's when our office actually starts recommending the series.

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