

Case Studies – Cervical Cancer

[Announcer] This podcast is presented by the Centers for Disease Control and Prevention. CDC – safer, healthier people.

[Dr. Saraiya] Welcome to this CDC program on cervical cancer screening. I'm your host, Dr. Mona Saraiya. With me today by phone is Dr. Alan Waxman, a professor of obstetrics and gynecology at the University of New Mexico. Dr. Waxman worked for the Indian Health Service for over 25 years, and he has been instrumental in leading colposcopy training of both mid-level and physician providers at the Indian Health Service. He chairs the ACOG Committee for the Underserved and he serves as an advisor to the National, New Mexico, and the Navajo Breast and Cervical Cancer Early Detection Program. He's going to talk to us about several case studies for cervical cancer screening and management. Welcome to the show, Dr. Waxman.

[Dr. Waxman] Well thank you very much Mona, I'm happy to be here

[Dr. Saraiya] Dr. Waxman, this time we have a 42-year-old G3P3 who presents for her gynecological exam. One year ago, her Pap and her HPV DNA test were both negative. What will you do regarding cervical cancer screening this visit?

[Dr. Waxman] In this scenario, I would do nothing. She had a Pap and an HPV test; she had two tests that were negative. The combination of these two tests being negative gives her an incredible amount of protection from cervical cancer over the next several years.

[Dr. Saraiya] And can you tell us briefly about the studies that support this?

[Dr. Waxman] There are a number of studies, and in the past couple of years alone there have been an increasing body of science coming out of Europe, especially that's looked at this. A United States study was published in the Journal of the National Cancer Institute in 2003. It followed 20,810 women in a prepaid managed care plan in Portland, Oregon for up to 10 years. They looked at the safety that was afforded by various testing modalities at the baseline and they looked to see, over time, what protection those offered. For instance, if a woman had a Pap test at the start of the study, the negative predictive value 45 months later for CIN3 or worse was 99.47. That means that if a woman has a Pap test alone today and it's negative, we can tell her that she is 99.47 percent sure of not having CIN3 or cancer over the next three and half years. If she has an HPV test alone (and that's not available in the United States; it is not FDA approved, in the United States at least), if she has an HPV test alone, in 45 months her protection is 99.76 percent. If she has the combination of a Pap that's negative and HPV that's negative, which is the case you presented in your scenario, her protection is 99.84 percent 45 months later. This is an incredible amount of protection. So once again, if I were to repeat any of these tests any sooner than three years, it would be spending a lot of money for very little protection.

[Dr. Saraiya] OK. So what then would you offer her in the place of her cervical cancer screening tests?

[Dr. Waxman] At this visit, again, I would offer her routine health maintenance screening. She's 42. I would look at her blood lipid profile. She's of an age where she should have a mammogram. She should have counseling about contraception, which at 42 she probably still needs. She should have, we should start to have the dialog about the perimenopause, what to expect, see whether she's starting to have symptoms from that. But in terms of cervical cancer screening, at this visit, I would reassure her that things are good and we won't repeat any tests for another two years, so three years from her double negative.

[Dr. Saraiya] OK. Well let's say the woman is screened again three years after her negative Pap and negative HPV. But this time the Pap is negative, and the HPV test is positive. How would you manage her?

[Dr. Waxman] OK, so at this time she's got a negative Pap test and that's very reassuring but she's got a positive HPV. So this then becomes a bit frustrating for the clinician, because now we've got the good news-bad news story. The good news is we've done a test that looks for cancer and precancer and you don't have it. The bad news is, you're positive for a sexually transmitted infection that might ultimately lead to cancer. So at this time, the first thing we're going to do is some very heavy counseling and then the second thing is to plan a follow up to see if her Pap test, which right now is negative, may, over time, become abnormal or her HPV test, which is positive, to see whether it goes away, as HPV sometimes will, or remains positive, which then increases her risk of cancer and premalignant condition and would then warrant colposcopy.

[Dr. Saraiya] Well, how common is having a positive HPV test but a negative Pap?

[Dr. Waxman] A study was published in the Journal of Obstetrics and Gynecology early in 2009 that looked at 580,000 women in a California prepaid managed care program and looked at women who had just that scenario—they had a normal Pap test, but their HPV test, their test for high-risk HPV, was positive. In fact, overall 3.99, so about 4 percent, met this criteria, and that's a small and very acceptable number. They found that in the younger women, 30 to 39 age group, their risk was about 5 to 7 percent, so it was a bit higher. After you get to age 40, the risk is down below 4 percent for every age cohort that they looked at.

[Dr. Saraiya] OK. Dr. Waxman, what are the chances of having CIN3 or worse with a positive HPV? And also can you tell us what the chances are with a negative HPV?

[Dr. Waxman] So let's go back to that large-cohort study that I started with - the one with the 10-year follow up and the 20,000 women. The risk of having CIN3, or cancer, after an initially positive HPV, when followed out over the full 10 years, only made it to about 4 percent. So the positive predictive value of a positive HPV test remains very low; now it gradually increased over time from about two and half percent at two years to about 4 percent at 10 years. But most women whose HPV is positive don't develop CIN3, don't develop cancer, and in fact, most of them, the HPV gets better. Those women whose HPV tests were negative at baseline, their risk of CIN3, or cancer, as I mentioned, remained very, very low, less than 1 percent.

[Dr. Saraiya] Well Dr. Waxman, thank you so much for sharing this important information with us.

[Dr. Waxman] Thank you, Mona.

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