

# Abnormal Pap Smear Rates Fall Since HPV Vaccine

BY JANE SALODOF MACNEIL  
Senior Editor

Abnormal Pap tests and cervical procedures have already declined markedly among young women who were vaccinated against the human papillomavirus in three pivotal clinical trials, according to data presented in Tampa at the annual meeting of the Society of Gynecologic Oncologists.

Comparison of 4,696 vaccinated women with 4,759 women in placebo groups showed reductions of 19% in colposcopy, 22% in cervical biopsy, and 42% in excisional therapy at an average follow-up of 3.3 years after the first dose of the quadrivalent vaccine (Gardasil/Silgard) against human papillomavirus (HPV) types 6, 11, 16, and 18.

Beyond the immediate benefit in reduced anxiety for women and costs for insurers, the results suggest the vaccine can deliver on the promise of preventing cervical cancer, investigator Dr. Warner K. Huh said in an interview. At least 20 years of follow-up are needed to see the impact of HPV prevention on cervical cancer. He characterized the disease as extremely rare in women under age 35 years and infrequent among women of all ages.

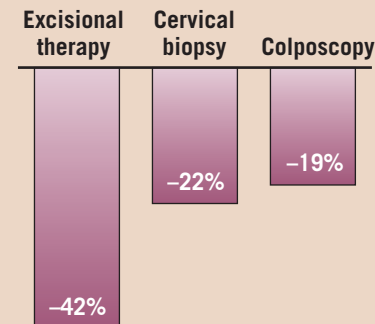
"Very few of us can identify with cervical cancer, but almost every woman in the United States can identify with an abnormal Pap smear," said Dr. Huh of the University of Alabama, Birmingham. "In the course of a lifetime, one in three women in the United States will have an abnormal Pap smear."

He estimated the cost of screening of cervical abnormalities as more than \$2 billion a year in the United States. When the cost of treating cervical abnormalities is added, the bill comes to about \$4 billion, according to the society.

The end-of-study data reported came from three large efficacy trials sponsored by Merck & Co., maker of the vaccine. All told, the studies randomized 18,150 women aged 16-26 years to the vaccine or a placebo. Participants had cervicovaginal sampling and Pap smears on their first day in the studies and were followed with Pap smears every 6-12 months for up to 48 months. Median follow-up was 4 years from day 1.

The analysis of abnormal Pap results covered findings due to any HPV type and not just the targets of the vaccine. Dr. Huh said previous research suggests the vaccine provides some cross-protection though this has not been defined. The comparison

## Human Papillomavirus Vaccine Leads to Reduction In Procedures



Note: Based on an average 3.3-year follow-up of 4,696 vaccinated women, compared with 4,759 given placebo.  
Source: Dr. Huh

placebo group and 24 in vaccinated women. Low-grade squamous intraepithelial lesions (LSIL) declined by 14%, occurring in 864 vaccinated women, compared with 1,000 women on placebo.

Other reductions in abnormal Pap tests included:

► A drop of 16% in atypical squamous cells of undetermined significance that were high-risk positive (meaning positive for one of the 13 cancer-causing HPV types for which the sample was tested), LSIL, or worse (1,062 women in the vaccine group vs. 1,226 on placebo).

► A decrease of 23% in atypical squamous cells of undetermined significance that were high-risk positive (285 vs. 359).

► A drop of 35% in atypical squamous cells that couldn't exclude HSIL (59 vs. 89).

Absolute numbers in the data comparing procedures showed: colposcopy in 869 vaccinated women, compared with 1,077 on placebo (19% reduction); biopsy in 741 vaccinated women, compared with 950 on placebo (22% reduction), and definitive therapy in 132 vaccinated women, compared with 230 on placebo (42% reduction).

Dr. Huh disclosed relationships with Merck, including being a consultant and speaker and receiving a research grant. ■

## Link Between HPV and Oral Cancers Backed By New Data

BY BRUCE K. DIXON  
Chicago Bureau

Researchers in Montreal have reported new evidence supporting a strong causal association between human papillomavirus infection and tonsil-related oral cancers.

The study also found that human papillomavirus (HPV) 16 seropositivity contributes substantial independent risk prediction. "HPV 16 seropositivity may thus serve as a surrogate marker for the totality of HPV exposure that is relevant in oral carcinogenesis," wrote Dr. Javier Pintos and his associates from the division of cancer epidemiology at McGill University.

Additionally, while some researchers have reported a positive correlation between markers of sexual activity and oral cancers, this study found no such association (Oral Oncol. 2008;44:242-50).

The investigation, as part of a multicenter study coordinated by the International Agency for Research on Cancer, followed a hospital-based case-control design.

A total of 72 patients with newly diagnosed squamous cell carcinoma of the mouth and 129 controls were recruited. Among patients, the most common cancer site was the tongue (21 patients), followed by the floor of the mouth (12) and palatine tonsil (12), "other" and "unspecified" parts of the mouth (18), the palate (4), the gums (2), the oropharynx (2), and the inner lip (1).

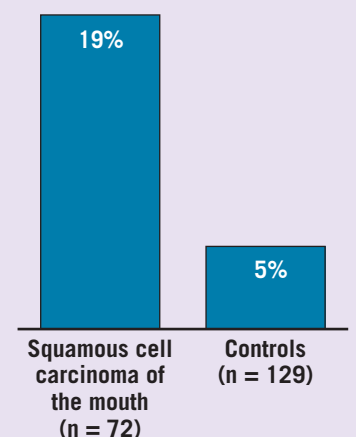
Patients ranged in age from 25 to 84 years, though most were between 55 and 74 years; men accounted for more than 70%.

HPV DNA was detected in 6 of 129 controls (5%) and 14 of 72 patients (19%). Most viral infections among patients harbored high-risk HPV types (13 of 14 samples), compared with 4 of the 6 HPV-positive controls, the investigators said, adding that HPV 16, which was not detected among controls, was found in 13 of the 14 positive samples from the oral cancer arm.

The association between HPV and cancers of the palatine tonsils and base of tongue seem to be genuine, because it is independent from the influence of smoking and alcohol.

The study was funded by the National Cancer Institute of Canada, and the authors said they had no conflicts of interest. ■

## Percentage of Patients With Human Papillomavirus

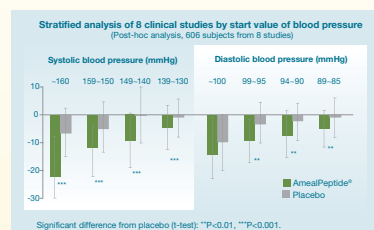


Source: Oral Oncology



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