PHYSICIAN'S WEEKLY
GYNECOLOGIC CANCER
Vol. II • Issue No. 1 • January 2021
WWW.PHYSICIANSWEEKLY.COM

Half of Med School Graduates Beginning Surgical Residency Feel Unprepared

Written by
Skeptical Scalpel

A survey of 3,693 first- and second-year surgical residents found that 48.1% said medical school did not adequately prepare them for the rigors of surgical residency. Although the more overnight calls a student participated in, the more significantly likely they were to have felt adequately prepared for residency, only 51.6% reported taking call less than twice per month, as did 43.3% during sub-internships. However, one-third of those who took call more than four times per month still felt unprepared. Other factors limiting preparedness included rules and regulations limiting what students could do during clerkships and students acting as observers only when taking overnight call. Meanwhile, residents who felt well prepared for surgical training reported significantly fewer symptoms of emotional exhaustion, depersonalization, and burnout.

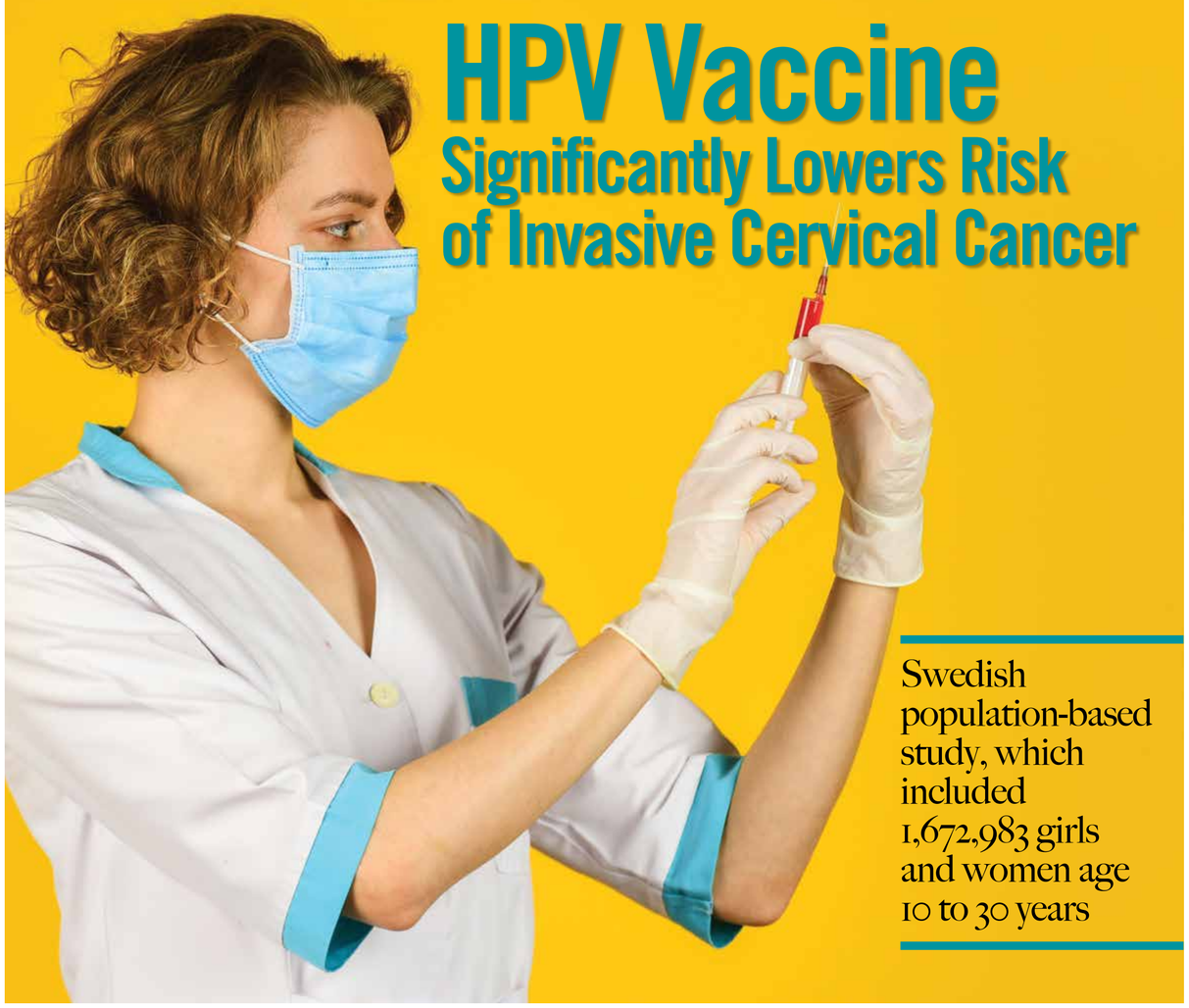
The paper, published in *JAMA Surgery*, surveyed residents who were training at hospitals that participated in the Flexibility in Duty Hour Requirements for Surgical Trainees (FIRST) trial.

A faculty member interview as part of the investigation noted that in the current culture, medical students were not allowed to write progress notes. A program director said, "I think that we've done a real disservice to the medical students at this point, giving them an improper perception of what residency means and what going into surgery means in general."

These findings did not surprise me. In one of my first blog posts in 2010, I wrote, "The third-year surgery rotation in medical school is not necessarily a good simulation of what it's like to be a surgical resident." The school I was with at the time had mandated that the students be allowed to go to bed at 11:00pm and only be awakened for major cases. I further explained this in a 2012 post, saying, "I believe a major cause [of attrition] is that medical students do not understand what surgical residency training is really like. In some schools, third-year [surgical] clerkships are as short as 4 to 6 weeks, and part of that time may be spent on clinic or subspecialty rotations." I also pointed out that many schools limited the amount of overnight call for students to once per week, resulting in "an unrealistic picture of what a surgical residency is like."

The authors of the *JAMA Surgery* paper concluded, "Adequate exposure to the necessary realities of surgical training and independent practice, particularly overnight call during the medical school clerkship, *may* [my emphasis] contribute to improved preparedness, lower attrition, and lower rates of burnout in general surgery residency."

I hope the paper is widely read by medical and surgical educators.



HPV Vaccine
Significantly Lowers Risk of Invasive Cervical Cancer

Swedish population-based study, which included 1,672,983 girls and women age 10 to 30 years

"Beginning in May 2007, HPV vaccination was subsidized for girls in Sweden who were 13 to 17 years of age. In 2012, Sweden introduced a free catch-up HPV vaccination program for girls and women 13 to 18 years of age and a school-based HPV vaccination program for girls 10 to 12 years of age. Currently, women 23 to 64 years of age are invited to participate in the population-based, organized cervical cancer screening program, which issues invitations every 3 to 7 years to women depending on their age," explained researchers led by Jiayao Lei, PhD, of the Karolinska Institutet, Solna, Sweden.

Using data from Swedish demographic and health registries, Dr. Lei and colleagues conducted their population-based study, which included 1,672,983 girls and women age 10 to 30 years who were followed and evaluated for cervical cancer until the age of 31 years. A full 83.2% of these individuals were vaccinated before the age of 17 years.

Associations between HPV vaccination and the risk of invasive cervical cancer were documented, defining vaccination with the HPV vaccine as receiving at least one dose of the quadrivalent vaccine. After exclusions, a total of 1,046,466 women were included in the analyses, 518,319 who were vaccinated and 528,347 who were not.

A total of 19 women who had received the quadrivalent HPV vaccine were diagnosed with cervical cancer, compared with 538 women who had not received the vaccine, for corresponding cumulative incidences of 47 cases per 100,000 persons versus 94 cases per 100,000 persons, respectively. Cumulative incidence of cervical cancer increased rapidly at the age of 23 years among vaccinated and unvaccinated women. By 30 years of age, this increased significantly to 94 cases per 100,000 persons in women who remained unvaccinated, compared with 47 cases per 100,000 persons among vaccinated women.

In those who were vaccinated between the ages of 17 and 30 years, the cumulative incidence by the age of 30 years was 54 cases per 100,000 persons. In contrast, the cumulative incidence of invasive cervical cancer in women vaccinated before the age of 17 years was four cases per 100,000 persons by the age of 28 years.

After adjusting for age at follow-up, the incidence rate ratio of comparison between vaccinated and non-vaccinated women was 0.51 (95% CI: 0.32-0.82). Upon further adjustment for calendar year, as well as residential and parental characteristics, the incidence rate ratio was 0.37 (95% CI: 0.21-0.57) in women who were vaccinated. When stratifying according to age at vaccination initiation, researchers found fully adjusted incidence rate ratios of 0.12 (95% CI: 0.00-0.34) in women vaccinated before age 17 years, compared with 0.47 (95% CI: 0.27-0.75) for those vaccinated between the ages of 17 and 30 years.

In women vaccinated before age 20 years, the fully adjusted incidence rate ratios were 0.36 (95% CI: 0.18-0.61), and 0.38 (95% CI: 0.12-0.72) in those vaccinated between 20 and 30 years of age.

In a sensitivity analysis, no significant differences in risk reductions were found to be associated with HPV vaccination among birth cohorts, but upon using a 5-year buffer period, they found that the risk of cervical cancer among women receiving HPV vaccination was consistently lower compared with those who remained unvaccinated.

Study limitations include misclassification of a small number of vaccinated women as unvaccinated; possible confounding by other factors including general health status and lifestyle factors like smoking status, sexual activity, oral contraceptive use, and obesity; along with the small incidence of cervical cancer in vaccinated women.

"Although the efficacy and effectiveness of the HPV vaccination against HPV infection, genital warts, and high-grade cervical lesions (CIN2+ and CIN3+) have been established, our results extend this knowledge base by showing that quadrivalent HPV vaccination is also associated with a substantially reduced risk of invasive cervical cancer, which is the ultimate intent of HPV vaccination programs," wrote Dr. Lei and colleagues. "The greater risk reduction associated with younger age at initiation of vaccination is consistent with previous findings that showed a lower risk of genital warts and high-grade cervical lesions with HPV vaccination."

The study team concluded that their "results also support the recommendation to administer quadrivalent HPV vaccine before exposure to HPV infection to achieve the most substantial benefit, since vaccination has no therapeutic effect against preexisting HPV infection."

KEY TAKEAWAYS

1. In girls and women, quadrivalent HPV vaccination significantly lowers the risk of developing invasive cervical cancer, with the greatest benefit from vaccination before exposure to HPV infection.
2. In girls and women vaccinated before the age of 17 years, the quadrivalent HPV vaccine lowered the risk of invasive cervical cancer by 88% compared with those who were not vaccinated.

Dealing With Non-Compliant Patients: Avoiding Liability

The first step in avoiding liability due to patient non-compliance is identifying that the patient actually is non-compliant. Then, ask about the reason for it and do what you can to counter it. Your record must reflect your attempt to determine what correctable issues underlie the non-compliance and what steps you took to counter it. If non-compliance is not solvable as a single issue and verbal reminders are not fruitful, you can consider a treatment contract, which breaks the compliance into specific acts of patient cooperation that may be easier to follow. Your last option is an "at risk" letter that states the specific non-compliant acts and their clinical consequences. This can include the warning that a failure to correct the non-compliance will result in termination from the practice. You should not create a "decline" note in which the patient signs their refusal to comply. You would be retaining the patient in your practice despite being unable to treat them as you believe is proper.

Your records need to demonstrate that the patient is being non-compliant rather than just being ill-informed. Descriptions of the patient's non-compliant conduct should state the fact of the non-compliance undeniably but without condemnatory or self-serving language. But it should not be so removed as to become meaningless in convincing a reviewer that you are not an appropriate target or in closing off patient claims that you never said something you actually did.

When the therapeutic relationship is irrevocably broken down and it is necessary for you to step away because the patient is actually preventing you from practicing medicine properly, you will have to terminate them from your practice. You will then have to consider abandonment. If you are going to take the maximum step against someone who is already in opposition to you, do so carefully. Non-compliance leading to no option but termination is a gradual process by definition and so an evaluator will want to see that it was handled that way.

You should also consider stating the reason for the termination in a letter. The general rule is to not give a specific reason, but here stating, *"As we have discussed, and as outlined in the treatment contract that you agreed to, it was essential that you follow through on prescribed care. Due to your continued refusal to follow treatment guidelines, this practice will no longer be able to retain you as a patient as of (date),"* may stop a retaliatory process before it starts.

This article was written by Dr. Medlaw, a physician and medical malpractice attorney.

In Case You Missed It

ART Treatment Not Tied to Higher Risk for Ovarian Cancer

Women treated with assisted reproductive technology (ART) do not have an increased risk for ovarian cancer compared with subfertile women not receiving ART, according to a study published in the *Journal of the National Cancer Institute*. In an effort to examine ovarian tumor risk, researchers conducted a cohort study involving 30,625 women who received ovarian stimulation for ART in 1983 to 2000 and 9,988 subfertile women not treated with ART. The researchers identified 158 invasive and 100 borderline ovarian tumors after a median follow-up of 24 years. The risk for ovarian cancer was increased in the ART group compared with the general population (standardized incidence ratio [SIR], 1.43), but not compared with the non-ART group (age- and parity-adjusted hazard ratio [HR], 1.02). With higher parity and a larger number of successful ART cycles (resulting in childbirth), risk decreased, but there was no association noted for the number of unsuccessful cycles. ART-treated women had an increased risk for borderline ovarian tumors compared with the general population (SIR, 2.20) and compared with non-ART-treated women (HR, 1.84). "The higher risk of ovarian cancer compared with the general population is likely due to the higher prevalence of nulliparity in ART-treated women," the authors write.

Rate of Injuries Increased Around Diagnosis of Cervical Cancer

Women with invasive cervical cancer (ICC) have an increased rate of iatrogenic and noniatrogenic injuries during diagnostic workup, according to a study published in *Cancer Epidemiology, Biomarkers & Prevention*. Study investigators performed a cohort study involving more than 3 million Swedish women who participated in cervical screening during 2001 to 2012 to examine the risk for injuries during the diagnosis of cervical cancer and its precursor lesions. Incidence rates of hospitalized iatrogenic or noniatrogenic injuries were calculated during the diagnostic workup for women with ICC or its precursor lesions after a smear or biopsy and for other women after a normal smear. The study team observed an increased rate of iatrogenic injuries during the diagnostic workup of women with ICC and of women with cervical intraepithelial neoplasia grade 3 and adenocarcinoma in situ compared with other women (incidence rates [IRs], 0.58 and 0.09 per 1,000 person-months, respectively; incidence rate ratios [IRRs], 8.55 and 3.04, respectively). During the diagnostic workup of women with invasive cancer, there was also an increased rate of noniatrogenic injuries (IR, 0.65 per 1,000 person-months; IRR, 2.48). "We found an increased risk of inpatient care for iatrogenic and noniatrogenic injuries for women with invasive cervical cancer," a co-author said in a statement. "It is important to emphasize, however, that cervical cancer screening is greatly beneficial for the early detection of cancer and is largely safe."