

POPULATION-LEVEL HPV VACCINATION COVERAGE AMONG U.S. ADULT IBD PATIENTS: STILL NOT ENOUGH

Ryan Suk, MS¹; Heetae Suk, LLM, PhD²; Keith Sigel, MD, PhD³; Kalyani B. Sonawane, PhD¹; Ashish A. Deshmukh, MPH, PhD¹

¹ The University of Texas Health Science Center at Houston; ² Yonsei University; ³ Mt. Sinai Icahn School of Medicine

Background

Evidence suggests that the inflammatory bowel disease (IBD) patients may have an elevated risk of Human Papillomavirus (HPV)-associated cancers when compared with those without IBD. HPV vaccination has been recommended for 11 to 26 years old males and females. Recently, the Centers for Disease Control and Prevention (CDC) has updated the guideline to include adults aged 27 to 45 who are not adequately vaccinated.

Methods

- Data: 2015-2016 National Health Information Survey (NHIS) data.
- Study population: Who reportedly were told by a doctor or healthcare professional that they have IBD.
- We stratified the patients into two age groups: HPV-vaccine eligible age groups (age 18-26) and newly approved age group (age 27-45).
- Outcome: Vaccine coverage status assessed as vaccine initiation age and number of doses (when the initiation age was less than 15, two doses were defined as “completed” and when the age was ≥15, three doses were defined as “completed”; when the participants had initiated the vaccine but have not completed all the required doses according to their initiation age, it was defined as “incomplete” while no dose was defined).
- We estimated the coverage rate by age group and sex. We used Wald chi-square test to examine differences in completion rate by sex.
- Weighted counts and percentages were estimated using survey design for the population-level results.

Results

	Eligible (age 18-26) (N =53; WN = 191,830)		Newly approved (age 27-45) (N=219; WN=859,711)	
	Men	Women	Men	Women
Complete	3.2% (0.0-8.7)	63.2% (46.2-80.1)	0.5% (0.0-1.4)	2.3% (0.6-4.0)
Incomplete	13.8% (0.0-31.6)	1.3% (0.0-3.8)	1.3% (0.0-3.3)	9.6% (6.1-13.1)
No vaccine	83.0% (64.7-100.0)	35.5% (19.0-52.1)	98.2% (96.0-100.0)	88.1% (84.2-92.0)
p-value	0.001		<0.001	

- Among eligible IBD patients, only 3.2% men completed vaccination series as recommended while 63.2% women completed the series.
- Eligible men had higher rates of incompleteness compared to women (13.8% vs 1.3%).
- A higher proportion of vaccine-eligible men (83.0%) did not initiate the vaccine compared to women (35.5%).
- Among newly approved age group, only 0.5% of men completed vaccine and 1.3% did not complete their doses.
- In newly approved women, 2.3% was complete with the doses and 9.6% initiated but did not complete the vaccine.

Conclusion

IBD patients might greatly benefit from receiving HPV vaccination given the possibly high risk of HPV-associated cancers. However, the coverage for vaccine-eligible IBD patients was not enough and much lower than the goal of 80% coverage in Healthy People 2020. Moreover, according to the updated guideline, 27 to 45 years old patients who are not adequately vaccinated would be able to catch up their vaccination. Further study needs to be focused on promoting and informing HPV vaccination in IBD patients, for both currently vaccine-eligible patients and those who are aged between 27 and 45 and not adequately vaccinated.