

# Hepatitis B vaccine in non immunized adults

Jenny Saint Aubyn MD, Tiffany Castellano MD

## Introduction

The hepatitis B virus is transmitted through blood and sexual contact. Some infections are cleared following an acute phase, while other become chronic infections that can result in chronic liver disease and hepatocellular carcinoma. As per the CDC there are 1.1 new cases of HBV infection per 100'000 people annually in the US. The rate of new HBV infections has been steadily declining since 1990, however chronic HBV infection remains a problem globally with approximately 257 million chronic infections and 887'000 annual HBV related deaths.

In this research project we assessed the baseline comfort level of Family Medicine residents with the indications for hepatitis B vaccination and the timeline for the vaccine.

## Methods

We gave a pre-test consisting of 4 questions to 16 family medicine residents (from PGY1 to PGY3). The test had 2 questions assessing their comfort level with the indication for hepatitis B vaccine in non-immunized adults and the vaccination timeline. The other 2 questions assessed their knowledge of the vaccination time line and indication for vaccination. Following the pre-test we provided a brief power point lecture covering the indication for hepatitis B vaccine in non-immunized adults and the vaccination schedule. A post test followed the lecture to assess their knowledge after the intervention.

## Results

	Pre-intervention	Post-Intervention
Comfort level with indication for HBV vaccination in non-immunized adults	89% somewhat comfortable	87.5% very comfortable
	19% not at all comfortable	12.5% somewhat comfortable
Comfort level with vaccination schedule for non-immunized adults	69% somewhat comfortable	94% very comfortable
	31% not at all comfortable	6% somewhat comfortable
Knowledge of interval between first and second dose of HBV vaccine	56% correct answer	100% correct
	44% incorrect answer	
Knowledge of comorbidities that are indications for HBV vaccination	50% correct	100% correct
	50% incorrect	

## Conclusions

Most providers felt either uncomfortable or somewhat comfortable with knowing when to administer the hepatitis B vaccine to non-immunized adult patients. Half of the providers knew the indications to vaccinate for HBV and 44% knew the vaccine schedule. Following our educational intervention, providers expressed an increase in comfort level with knowing when to vaccinate and who to vaccinate, which was reflected in a 100% correct answer rate when assessing their knowledge. In conclusion, our educational intervention was effective in teaching providers about the hepatitis B vaccine.

## References

<https://www.cdc.gov/hepatitis/hbv/hbvfaq.htm#overview>

<https://www.aafp.org/afp/2010/0415/p965.html>

## Acknowledgments

This project was mentored by Dr. Aldulaimi and Dr. Koleski whose help is acknowledged with great appreciation.