

Implementation of a Surveillance Program for Hepatitis B Virus (HBV) Vaccination Status

Authors: Senthuri Paramalingam¹, Anisha Garga¹, Reena Lovinsky¹, Jayvee Guerrero¹
¹Scarborough Health Network

Abstract

Hemodialysis is a procedure that utilizes a dialyzer and dialysis machine to clean blood (1). Hemodialysis patients are at high-risk for acquiring bloodborne infections including HBV. Vaccination programs are recommended to help prevent the transmission of HBV in hemodialysis (2).

Objectives

Our Infection Prevention and Control program helped to create a surveillance program to record the HBV status of our hemodialysis patients in our electronic health record system (eHRS). The program was used to identify patients' Hepatitis B status and make recommendations for HBV bloodwork and vaccination.

Study Design

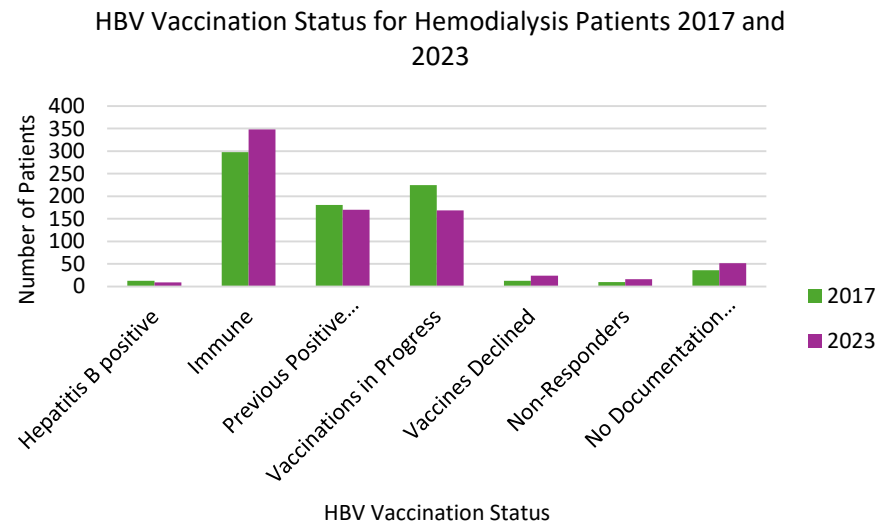
The surveillance system was implemented in 2017. All patients who were receiving hemodialysis had their serology reviewed and status updated in the eHRS. All subsequent hemodialysis patients were included in this surveillance system.

Based on serology, patients were assigned a category: HBV positive (chronic or acute), immune (immune by vaccination), non-responder, vaccines declined, previous positive (immune by previous infection), vaccinations in progress (given/will be given vaccine) and blank (serology not reviewed). Following identification of serology status, patients were dialyzed in groups.

Results

In 2017, 776 patient's HBV status was reviewed: 13 HBV positive, 298 immune, 181 previous positive, 225 vaccinations in progress, 13 vaccines declined, 10 non-responders and 36 blanks. In 2023, 788 patient's HBV status was reviewed: 9 HBV positive, 348 immune, 170 previous positive, 169 vaccinations in progress, 24 vaccines declined, 16 non-responders, and 52 blanks.

HBV positive patients are dialyzed in the same room on contact precautions. Patients who are susceptible, non-responders or declined vaccinations are grouped with immune patients.



ED to Hosp-Admission (Disch...)	HEMODIALYSIS TREATME...	Admission (Current) from 3...
29/11/2022	27/10/2023	1/5/2024
1700	1500	1100

Initial HBc Ab Total	Reactive
1700	3/10/2022

Conclusion

Having an HBV status surveillance program within eHRS allows the hemodialysis program to quickly and efficiently identify the HBV status of individual patients. Grouping patients together on specific dialysis shifts based on HBV status helps to prevent HBV outbreaks and has helped with patient centred follow-up for surveillance bloodwork and vaccinations.

References

1. National Kidney Foundation. Hemodialysis. Accessed on Dec 6 2023. <https://www.kidney.org/atoz/content/hemodialysis#:~:text=Hemo dialysis%20is%20a%20procedure%20where,surgery%2C%20usually%20to%20your%20arm.>
2. Recommendations for Preventing Transmission of Infections Among Chronic Hemodialysis Patients. U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. Morbidity and Mortality Weekly Report. April 27 2001.

Disclosures

No disclosures.