

# **Hepatitis B Vaccination Initiative for Acute Care Dialysis Patients** Stony Brook University Hospital, Stony Brook, New York

### Stony Brook Demographics

- Stony Brook University Medical Center
  - Level 1 Adult and Pediatric Trauma Center for Suffolk County, LI, NY
  - 603 Beds
- Dialysis Unit
  - 4 Chair Acute only Hemodialysis Unit
  - 4 Renal Replacement Therapy Programs that we either directly perform or manage
    - Acute HD-3861 cases in 2017
      - 2882 to HD Unit
      - 979 Bedside HD
    - Continuous Renal Replacement Therapy (CRRT)-326 days of treatment managed in 2017
    - Peritoneal Dialysis (PD)-200 treatments performed in 2017
    - Pediatrics-data included in acute/bedside/ CRRT statistics



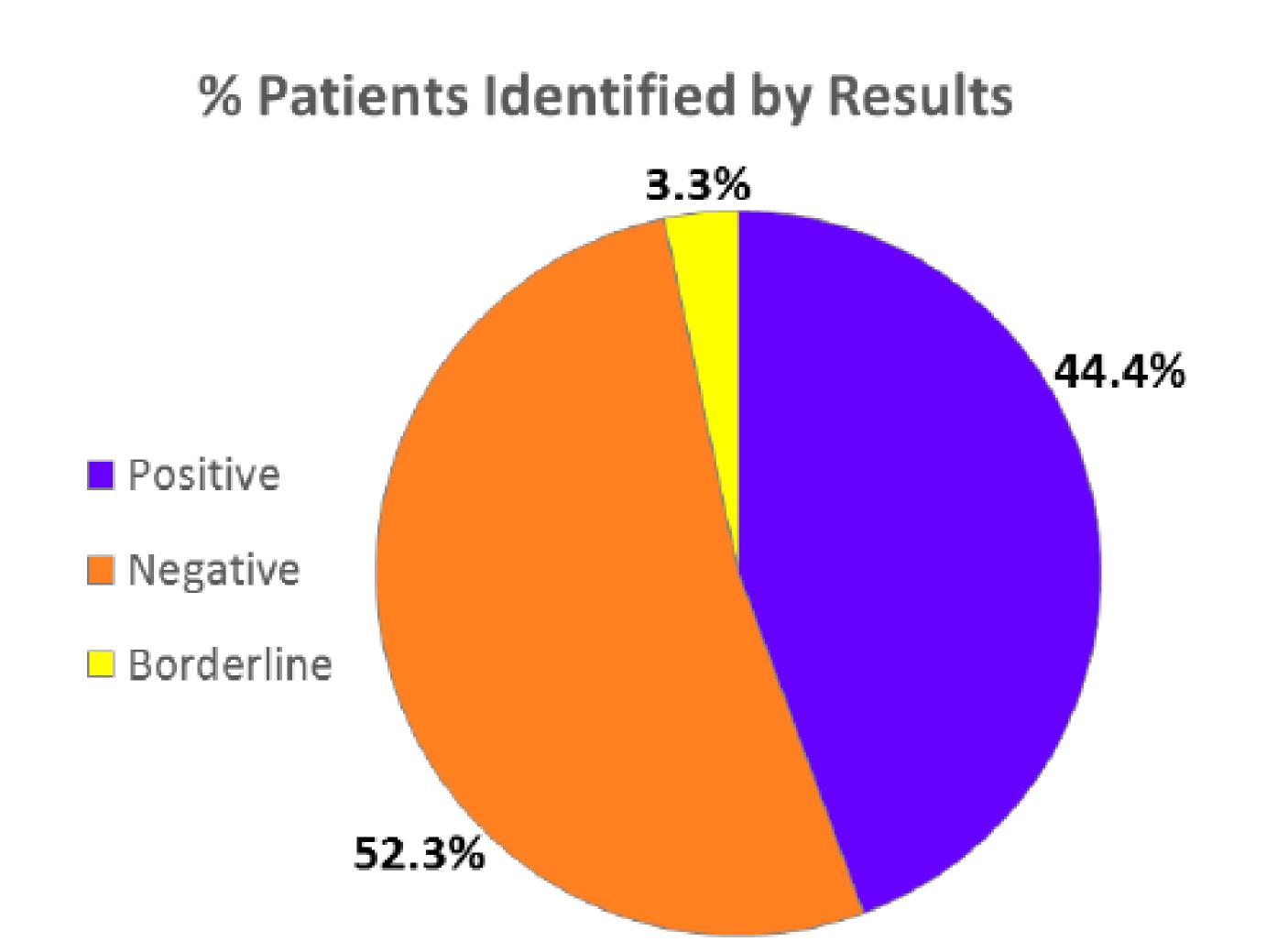
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### Study Info

**Objectives**: To create a process to identify all dialysis patients who receive Renal Replacement Therapy (RRT) at Stony Brook University Medical Center that are Hepatitis B surface Antibody negative and initiate vaccination series prior to discharge.

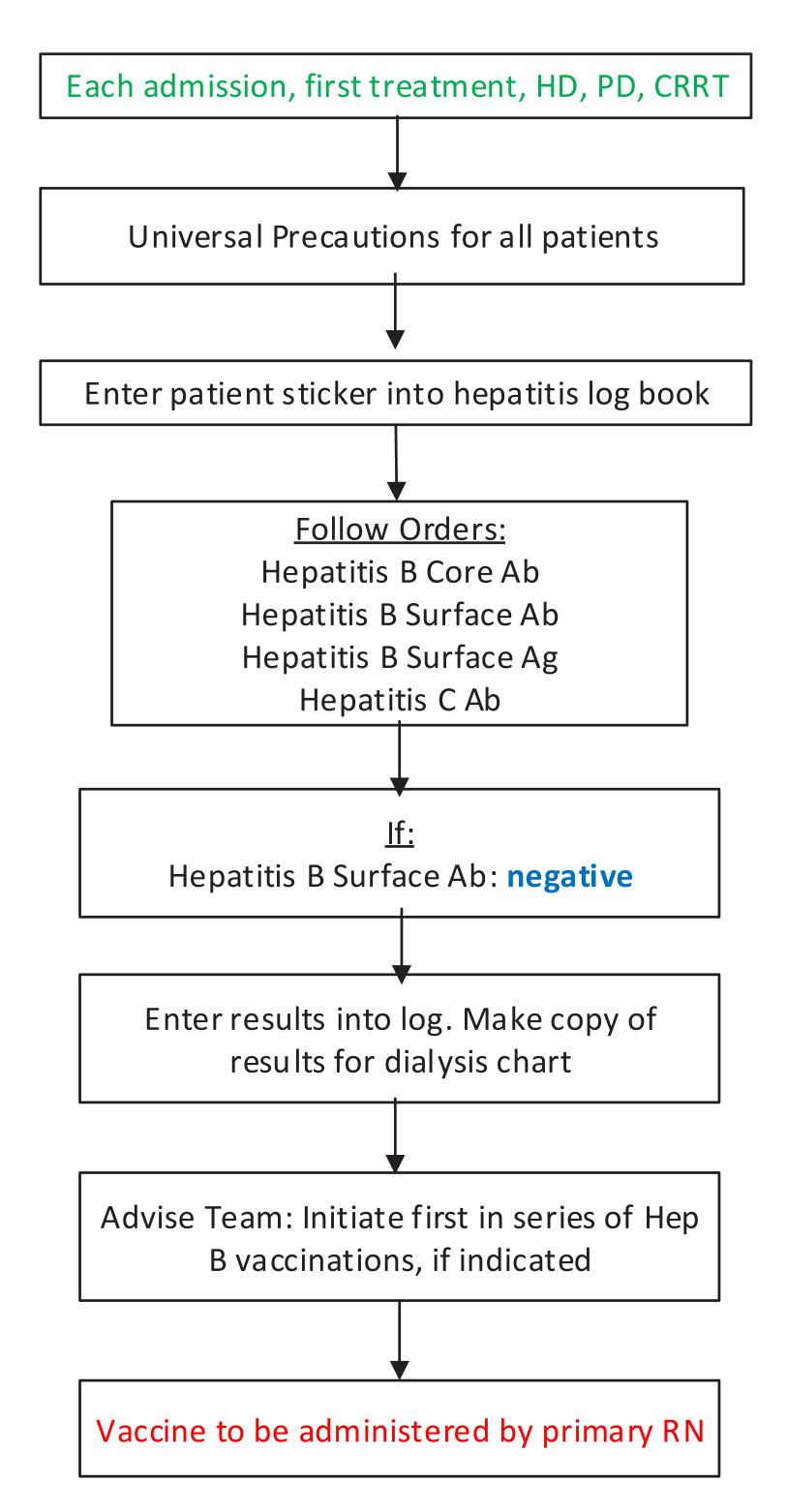
Methods: We performed a Quality Improvement project involving a retrospective chart review of hospitalized patients receiving RRT at our Academic Medical Center over twelve months (Q3 and Q4 of 2016. And Q1 and Q2 of 2017).

**Results**: 575 charts reviewed. Of those 491 were on HD, 24 were on PD, and 60 were on CRRT. 82% were known ESRD patients and 18% of the patients were being treated for AKI.



## Algorithm

### <u>Hepatitis Algorithm</u>



### **DOHInfo**

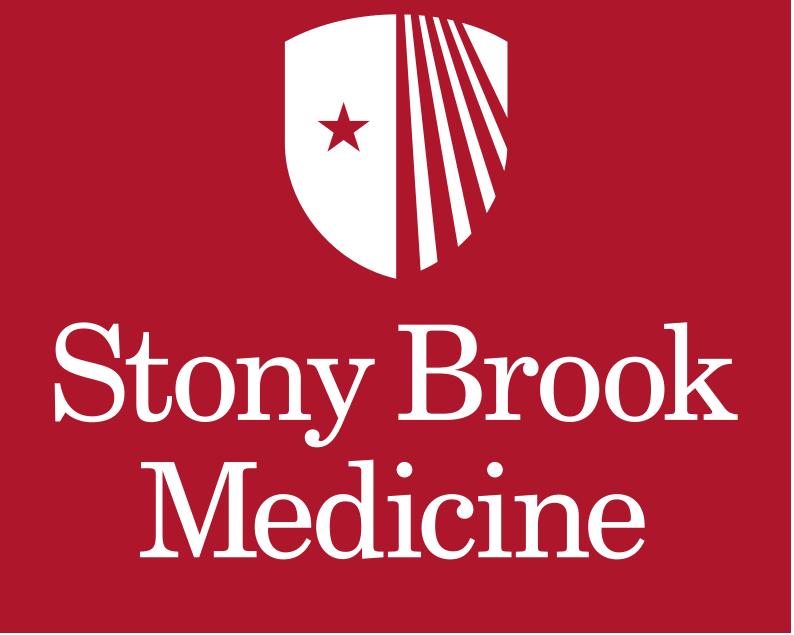
Schedule for Routine Testing for Hepatitis B Virus (HBV and Hepatitis C Virus (HCV) Infections

Patient Status	On Admission	Monthly	Semiannual	Annual		
All patients	HBsAg,* Anti-HBc* (total), Anti-HBs,* Anti-HCV, ALT <sup>+</sup>					
HBV-susceptible, including nonresponders to vaccine		HBsAg				
Anti-HBs positive (≥10 mIU/mL), anti-HBc negative				Anti-HBs		
Anti-HBs and anti-HBc positive		No additional HBV testing needed				
Anti-HCV negative		ALT	Anti-HCV			

Results of HBV testing should be known before the patient begins dial HBsAg=hepatitis B surface antigen; Anti-HBc=antibody to hepatitis B co ntigen; Anti-HBs=antibody to hepatitis B surface antigen; Anti-HCV=antibod o hepatitis C virus; ALT=alanine aminotransferase

### Hepatitis B Vaccination

- Vaccinate all susceptible patients against hepatitis B.
- Test for anti-HBs 1-2 months after last dose.
- If anti-HBs is <10 mIU/mL, consider patient</li> susceptible, revaccinate with an additional three doses, and retest for anti-HBs.
- If anti-HBs is <u>>10 mIU/mL</u>, consider patient immune, and retest annually.
- Give booster dose of vaccine if anti-HBs declines to <10 mIU/mL and continue to retest annually.



	Dose (units)	Type of Vaccine	Da ma	te given b/day/yr	Health professional or clinic	Date next dose due		
			1				<b>•</b>	
Нер			2					
B			3					
			4					

## Conclusion

**Conclusion**: Through this study we were able to improve the workflow process for identification of Hepatitis B AB negative patients and create an immunization process, including an immunization card (pending approval from the SBUMC forms committee). Communication within Dialysis Unit improved by creating a log for Hepatitis results. Communication with patient's community dialysis center also improved. We are continuing to collaborate with IT to discuss and optimize documentation enhancements.

Next Steps: Upon approval of the Immunization card, initiate the immunization process that we have identified. Educate floor nursing staff of process of patient identification and which patients meet criteria for Hepatitis B vaccination series initiation.