



# Single-Institutional Analysis of Post-Splenectomy Vaccine Administration and Infectious Complications in Trauma Patients

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## BACKGROUND

- Post-splenectomy vaccinations for organisms posing a greater risk to asplenic patients serve an integral role in preventing infection.
- The trauma patient population poses unique challenges with vaccination involving follow-up and continuity of care after discharge.

## AIM

- Primary aim: Measure the incidence and timing of post-splenectomy vaccination in trauma patients
- Secondary aim: Investigate if there is an association between infectious complications and the administration of post-splenectomy vaccines in the trauma patient population.

## METHODS

### Phase 1

Retrospective Chart Review

Review:

- 206 adult patient charts
- Jan 2022 - July 2023

### Phase 2

Faculty Education

Intervention:

- Provider education
- Patient education
- 1st round of vaccines before discharge
- Follow-up visits scheduled prior to discharge
- Transportation resources offered

### Phase 3

Patient Education

### Phase 4

Prospective Evaluation

Approval

Implement

Track and Validate

## RESULTS

### Prior to Protocol Implementation

- An analysis of 206 post-splenectomy trauma patients revealed that 16% of patients did not receive any of the required vaccines
- 12% of patients received all recommended vaccines



### After Protocol Implementation

- Since Jan. 2022, 100% of UMC post-splenectomy trauma patients are at least partially-vaccinated
- 20% of patients received all recommended vaccines

	Vaccination status	
	Full (n=6)	Partial (n=23)
Received education, n (%)	3 (50)	13 (57)
Avg. HLOS ± SD (days)	18 ± 17	22 ± 21
Avg. readmissions post-discharge (p= 0.77)	0.7 ± 0.8	0.9 ± 1.6
Avg. ED Visits post-discharge (p= 0.95)	1.7 ± 3.1	1.7 ± 2.6
Any Post-discharge Infectious complications, n (%) (p= 1.00)	2 (33)	6 (26)

## DISCUSSION + FUTURE DIRECTIONS

- These results demonstrate increased vaccination compliance with implementation of our protocol.
- During follow-up, 56.5% of patients didn't finish vaccine courses having cancelled/no-showed appointments after discharge and 26.1% due to failure to schedule a follow-up appointment before hospital discharge.
  - Future studies should investigate other measures to decrease the number of no-shows/cancellations at follow-up appointments.
- There was no observed difference in # of ED visits or readmissions between partially and fully vaccinated post-splenectomy patients.