Results

York, and Transplant 3 Sloan and 8 of these patients had Antithymocyte Globulin 2013 390/512 (76%) patients received vaccinations on 4 (0.8)

JIDSA Biol J Current guidelines from the Infectious Diseases Society of America (IDSA), the American Society for Blood and Marrow Transplantation (ASBMT), and the European Group for Blood and Marrow Transplantation (EBMT) recommend routine reevaluation at a fixed dosing schedule for HSCT patients post-transplant. 

Although immunization adherence is a key measure for prevention of infectious complications following transplantation, compliance with these recommendations is unknown.1,2

Discussion

• Compliance rates between January 2010 and September 2015 included the following: 
  - 390/512 (76%) patients received vaccinations on or after 12 months post-transplant
  - 375/390 (71%) patients initiated their vaccination schedule at 12 months post-transplant 
  - 387/512 (73%) patients completed their vaccination series post-transplant (Table 2) 

• The most common reasons behind delayed initiation of vaccination schedule were relapse (1%), active GvHD (9%), immunosuppression (5%), and infection (4%) (Table 2).

• The most common reasons for incomplete vaccination schedule were maintenance therapy (7%), relapse (6%), lost to follow-up (4%), and active GvHD (4%) (Table 2).

• 36 patients (7%) completed vaccination schedule and received the appropriate post-transplant antibody titers.

• 11 patients (2%) developed a breakthrough infection of S. pneumoniae and 8 of these patients had previously received the pneumococcal vaccine post-transplant.

This study adds important data to the limited body of literature on HSCT vaccine compliance rates. Based on this data, a multidisciplinary approach is warranted to improve vaccine rates. This may include patient and provider education regarding vaccinations, optimizing EMR (electronic medical record) for assessment of vaccination, and improved methods of follow-up to increase compliance and completion of recommended post-transplant vaccinations. Future studies on the best intervention to improve compliance rates are warranted.

Methods

• Single-center, retrospective chart review of all adult HSCT patients at Yale-New Haven Hospital between January 2010 and September 2015.

• Patients were excluded if, prior to 1-year post-transplant, they were <18 years of age, deceased, transferred care to an outside facility/hospital, or lost to follow-up.

• The authors of this presentation have the following to disclose:
  - L. Cortes has a potential financial or personal relationship with commercial interests that may have a direct or indirect interest in the subject matter of the presentation:
    - None
  - J. Chiller has a potential financial or personal relationship with commercial interests that may have a direct or indirect interest in the subject matter of the presentation:
    - None

Figure 1. Yearly Compliance Rates

Figure 2. Post-Vaccination Titers

Table 1. Baseline Characteristics of Patients

Table 2. Overall Compliance Rates

GvHD – Graft Versus Host Disease; IMIDs – Immuno-modulatory Immune Drugs

Objective

Identify reasons for non-compliance with vaccinations, adherence to vaccination schedule and impact of HSCT on vaccine antibody titers.

Conclusion

This study adds important data to the limited body of literature on HSCT vaccine compliance rates. Based on this data, a multidisciplinary approach is warranted to improve vaccine rates. This may include patient and provider education regarding vaccinations, optimizing EMR (electronic medical record) for assessment of vaccination, and improved methods of follow-up to increase compliance and completion of recommended post-transplant vaccinations. Future studies on the best intervention to improve compliance rates are warranted.

Vaccination Rates in Post-Transplant Hematopoietic Stem Cell Transplant (HSCT) Patients: Where Do We Stand?

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References: