

O106

Oral Session

Different prevention strategies in immunocompromised patients

**COMPLIANCE WITH POST-HEMATOPOIETIC STEM CELL TRANSPLANTATION VACCINATION CONSENSUS GUIDELINES**

E. Ariza-Heredia<sup>1</sup>, A. Gulbis<sup>2</sup>, P. Kebriaei<sup>2</sup>, K. Stolar<sup>2</sup>, K. McConn<sup>1</sup>, V. Mulanovich<sup>1</sup>, G. Viola<sup>1</sup>, R. Chemaly<sup>1</sup>

<sup>1</sup>Infectious Diseases, MD Anderson Cancer Center, Houston, USA ; <sup>2</sup>Stem Cell Transplantation, MD Anderson Cancer Center, Houston, USA

**Objectives:** After hematopoietic stem cell transplantation (HSCT), patients usually lose their prior acquired immunity to vaccine preventable diseases for which international guidelines have been developed with specific immunization protocol recommendations. As part of a quality improvement project, our main objective was not only to determine our current vaccination practices after-HSCT, but also to evaluate the practical and clinical applicability of current guidelines.

**Methods:** In 2013, an anonymous survey was distributed to clinicians in the HSCT department aimed at determining awareness of current consensus guidelines, and vaccination practices. In order to verify post-HSCT vaccine administration within the past three years, we queried our institutional pharmacy database for vaccine dispenses and performed a detailed chart review of all non-vaccinated patients to determine the reasons for delaying or withholding vaccination.

**Results:** Most survey respondents (96%) were familiar with the post-HSCT vaccination protocol. Approximately 74% of respondents reported that influenza vaccines were given to over 70% of their patients, and 41% stated that they prescribed live vaccines to all eligible patients. Most clinicians designated graft-versus-host disease (GVHD), the use of steroids and other immunosuppressive medications, such as rituximab, and immunoglobulins, as the main reasons for delaying or withholding vaccinations. Our review of 663 HSCT recipients between December 2010 through February 2013 revealed that 252 (38%) patients received the first series of recommended vaccinations by 6 months, and 398 (60%) received them by 1 year after HSCT. Of the 251 non-vaccinated patients, we excluded 84 (33%) as had relapse or died. From the 167 remaining patients, 97 (58%) were either hospitalized, had GVHD, or had received immunoglobulins or rituximab by the time vaccination was due, and 21 (12%) had the vaccines given outside our institution. For the remaining 49 (30%), we did not find specific reasons for withholding vaccination.

**Conclusion:** Although most survey respondents reported being aware of current consensus guidelines for vaccination after HSCT, similar to other institutions, adherence to the guidelines varied. The reasons cited in the survey for delaying or withholding vaccination matched the reasons in the non-vaccinated patients after chart review. Furthermore, we observed that many non-vaccinated patients had clinical situations not covered by the current guidelines—e.g., patients with relapsed disease and patients who required maintenance chemotherapy. Conflicting data from the literature and the lack of clear answers to clinical questions account for a large part of the variability in the adherence to current guidelines. Further *in vitro* and *in vivo* immunization studies are warranted to enhance our knowledge of vaccination after HSCT, including which patients should be vaccinated and when, and thereby improve compliance and patient overall outcomes.