

# Is There a Secondary Vaccine Hesitancy? Parental Attitudes Toward Revaccination of Childhood Cancer Survivors

Ogochukwu Ezeoke<sup>1</sup>, Sasidhar Goteti<sup>2</sup>, Jamie Cashell<sup>3</sup>, and Amy Caruso-Brown<sup>4</sup>

<sup>1</sup>Ann and Robert H Lurie Children's Hospital of Chicago

<sup>2</sup>Oregon Health & Science University

<sup>3</sup>Penn State Health Children's Hospital

<sup>4</sup>State University of New York Upstate Medical University

November 23, 2020

## Abstract

**Introduction:** Many children and adolescents who were vaccinated prior to cancer treatment lose humoral immunity after completion of therapy. Pediatricians and pediatric oncologists often recommend re-immunization, although there is little consensus on timing and approach to serologic testing. However, vaccine hesitancy in the U.S. is a growing problem. It is not known whether parents who initially permitted vaccination might demonstrate secondary hesitancy regarding re-immunization. **Methods:** We conducted a qualitative study to explore parental attitudes toward re-immunization after completion of cancer therapy. Twenty primary caregivers of current pediatric cancer patients participated in structured interviews exploring knowledge and understanding of immunity and vaccination; previous experiences with vaccines; and attitudes toward vaccines and revaccination. **Results:** Of those interviewed, 80% were female and 90% were White Non-Hispanic. Of interviewees' children with cancer, 60% were male, 75% had been diagnosed within the past 6 months, and 45% had leukemia or lymphoma. All caregivers demonstrated a basic understanding of vaccination, but only 65% understood that it was possible to lose immunity even with previous vaccination. All caregivers were willing to have their children immunized if tests showed lack of humoral immunity, with 85% expressing a preference for testing prior to revaccination. **Conclusions:** Primary caregivers of children with cancer are willing to consider re-immunization interest but do express some secondary hesitancy and strongly prefer that the need for re-immunization be established via serologic testing, rather than performed empirically. Caregivers' beliefs and preferences regarding re-immunization in pediatric oncology should be considered in the development of post-treatment guidelines.

## Hosted file

Manuscript - Vaccine Hesitancy.pdf available at <https://authorea.com/users/377928/articles/494548-is-there-a-secondary-vaccine-hesitancy-parental-attitudes-toward-revaccination-of-childhood-cancer-survivors>

Figure 1. Parent/Care-Giver Demographic Data



Figure 2. Safety and Choice of Vaccinations

