

*Desmith, Kylene*

*I have no conflicts of interest to disclose*

## **Abstract**

**Introduction:** Cytomegalovirus (CMV) reactivation poses significant risks in pediatric patients undergoing allogeneic hematopoietic stem cell transplant (HSCT), including the potential for CMV retinitis, which can lead to severe ocular morbidity. A previously published CMV retinitis screening protocol called for intensive and frequent screening exams with retinal photography.

**Objectives:** To evaluate the prevalence and incidence of CMV retinitis, institutional adherence to previously published screening protocol, and determine the impact and efficacy of previously published CMV retinitis screening protocol.

**Methods:** Retrospective cohort study of 228 pediatric patients who underwent their first allogeneic HSCT at Children's Hospital Colorado from 2015 to 2021.

**Results:** 25% of allogeneic HSCT patients developed CMV viremia and only three of those developed CMV retinitis—each diagnosed long after initial examination per protocol. Adherence to the screening protocol was suboptimal; only 28% of patients with viremia underwent the recommended dilated fundal exam (DFE) and retinal photography within two weeks of diagnosis. Despite this, there were no significant long-term ocular complications noted, leading to the conclusion that the rigorous screening may be unnecessary. While other ocular complications, such as ocular GVHD was noted, these were associated with pre-existing systemic conditions.

**Conclusions:** These findings suggest a low incidence of retinitis, contrary to the previously published protocol. This study advocates for a re-evaluation of screening protocols, emphasizing the need for a more streamlined approach that prioritizes patient well-being without compromising ocular health monitoring during the vulnerable post-transplant period.