

Title: CMV Infection Outcomes, Treatment Patterns and Healthcare Resource Utilization Following Hematopoietic Stem Cell Transplant

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Background

Cytomegalovirus (CMV) infection is a common complication in transplant patients. Modern evidence of clinical practice for the management of CMV after hematopoietic stem cell transplant (HSCT) is needed to understand unmet therapeutic needs in this field and reduce this infection's impact on patients and healthcare systems.

We carried out a retrospective non-interventional medical chart review study in US and European transplant centers between 2020 and 2021 to describe the management and clinical evolution of adult HSCT recipients infected with CMV. We analyzed two groups of patients:

- 1) Patients who had a transplant after January 1, 2014 and developed CMV that was resistant, refractory or became intolerant (RRI) to conventional anti-CMV therapies;
- 2) Patients who had a transplant after January 1, 2017 and were pre-emptively treated for CMV infection

Results

Overall, 250 RRI patients and 140 preemptively treated patients were analyzed.

- RRI patients: Median time from transplant to first RRI infection was 33 days. Overall, 53.0% of patients received a valganciclovir-containing regimen as first-line treatment. Foscarnet-containing regimen was used by 52.2% of patients as a second-line treatment (n=182). During the first RRI CMV episode, 58.0% of patients achieved clearance of CMV, and CMV recurrence was 35.2%. All-cause mortality was reported in 56.0% of patients. Mortality one year after RRI identification was 45.2%. CMV-related hospitalizations were reported in 37.6% of patients (median length of hospital stay: 18 days). Most hospitalizations or emergency department visits (80.1%) were to manage RRI CMV episodes.
- Pre-emptively treated patients: Median time from transplant to first pre-emptive treatment was 39 days (SD=63.7) with 24.3% of patients receiving CMV prophylaxis. Valganciclovir-containing regimen(s) was used as first-line in 60.0% of patients. Overall, 81.4% of patients achieved CMV clearance during the episode, and 32.9% of patients had CMV recurrence. All-cause mortality after pre-emptive treatment initiation was 35.7% (22.9% died within one-year of initiating pre-emptive treatment). CMV-related hospitalizations were reported in 13.6% of patients (median length of hospital stay: 18 days).

Summary

Patients treated with anti-CMV conventional therapies experience CMV recurrence, hospitalizations, and mortality. Emerging anti-CMV drugs will increase therapeutic options for transplant recipients difficult to treat.

You may learn more about this study at: <https://www.hra.nhs.uk/planning-and-improving-research/application-summaries/research-summaries/cm-v-in-allogeneic-hematopoietic-stem-cell-transplant-patients-v40/>