ECOG-ACRIN
cancer research group

E1A11/ENDURANCE Clinical Trial Results Summary

Bortezomib or Carfilzomib with Lenalidomide and Dexamethasone in Treating Patients with Newly Diagnosed Multiple Myeloma

What did this trial involve and who was it for?

E1A11/ENDURANCE was for patients with newly diagnosed multiple myeloma (MM) who were not being considered for immediate stem cell transplantation. A common initial treatment for these patients is a combination of the drugs bortezomib, lenalidomide, and dexamethasone (VRd). While VRd has proven to be generally effective for treating MM in previous clinical trials, not all patients experience complete remission (when cancer can no longer be detected). VRd is also associated with some side effects, such as sensory neuropathy (damage to the nerves that can cause numbness or pain, often in the hands and feet).

Carfilzomib, a drug similar to bortezomib, has been shown in other clinical trials to be effective in treating MM. E1A11 aimed to compare the effectiveness of VRd treatment (bortezomib, lenalidomide, and dexamethasone) versus CRd treatment (carfilzomib, lenalidomide, and dexamethasone). A total of 1087 patients with newly diagnosed MM were enrolled to E1A11 and randomly assigned by a computer to receive either VRd or CRd treatment.

What are the results?

Initial results for E1A11/ENDURANCE were published in 2020; the findings at that time were as follows:

- At 3 years after the end of treatment, the survival rate did not significantly differ between the treatment groups: 84% of patients in the VRd group were still alive versus 86% of patients in the CRd group.
- Patients who received CRd treatment were more likely to experience serious side effects, especially those related to heart, lung, or kidney function. Patients who received VRd treatment were more likely to experience neuropathy side effects.

Long-term follow-up results were published in 2025 with the same findings:

- Similar to the 2020 results, there was no significant difference in survival rates between patients in the VRd group versus patients in the CRd group.
- Likewise, patients who received CRd treatment were more likely to have experienced serious side effects than patients who received VRd treatment.
- The trial also examined if continuing treatment until myeloma relapse is a better strategy than giving treatment for a fixed period of time; the results of the second part of the study are not yet available.

What do the results mean for patients?

Based on the study's findings in 2020 and 2025, the investigators recommended no change to the standard initial treatment of VRd (bortezomib, lenalidomide, and dexamethasone).

For more information, go to:

- United States National Institutes of Health (NIH) Library of Medicine: https://clinicaltrials.gov/study/NCT01863550
- Lancet (2020): https://pmc.ncbi.nlm.nih.gov/articles/PMC7591827/
- Journal of Clinical Oncology (2025): https://doi.org/10.1200/JCO.2025.43.16_suppl.7540

About ECOG-ACRIN

This trial was led by the ECOG-ACRIN Cancer Research Group (ECOG-ACRIN). ECOG-ACRIN is a membership-based scientific organization that designs and conducts cancer research involving adults who have or are at risk of developing cancer. ECOG-ACRIN is a component of the National Cancer Institute's National Clinical Trials Network. Learn more at www.ecog-acrin.org.

To all the patients that participated in this trial, thank you. Without the involvement of patients like you, this research would not have been conducted.