

## **BULGARIAN BONE MARROW DONOR REGISTRY (BBMDR)**

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The Bulgarian Bone Marrow Donor Registry (BBMDR) has been a member of the World Marrow Donor Association (WMDA) since 2005. The registry's activities are divided into two main directions: maintaining a registry of voluntary donors and covering all aspects of the search and identification of compatible donors for patients in need.

The work of BBMDR is an essential part of transplantation activities in Bulgaria. During the period from 2005 to 2023, a total of 480 allogeneic hematopoietic stem cell transplants have been performed, with 283 of them using unrelated donors.

BBMDR has enrolled 3570 donors, including 1535 males and 2035 females. The majority of donors fall within the 25-45 age group. Improvements in donor typing quality have contributed to an increase in found donors for foreign patients, from an average of 32,8% for the period 2013-2018 to an average of 67,7% for the period 2019-2023. During the last three years, two donations from Bulgarian donors have been realized. In recent years, there has been a tendency to increase the number of patients referred for hematopoietic stem cell transplantation. The largest percentage are patients diagnosed with AML (50%), and ALL (24%). The number of haploidentical transplants has also increased from 27 for the period 2018-2020 to 51 for 2021-2023. Various factors contribute to this trend, with one of the main factors being the population-specific nature of the HLA system, which determines tissue compatibility. For the period 2021-2023, the registry has searched for donors for 290 Bulgarian patients. Fully compatible donors were found for 60%, 9/10 compatible donors for 12%, and suitable donors were not found for 28% of the patients.

This data imposes the main priority of the registry, which is to recruit a large number of donors in order to enrich the gene pool and cover the genetic polymorphisms related to tissue compatibility that are characteristic of the Bulgarian population.