

## **PRINCIPLES OF CONDITIONING REGIMENS - EXPERIENCE OF FUNDENI CLINICAL INSTITUTE.**

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Conditioning regimen is the central part of stem cell transplantation. It is a combination of chemo and radiation therapy used for direct anti-tumor activity and for immunosuppression in order to allow engraftment of donor lymphohematopoiesis. The conditioning regimen could be myeloablative, when the myelosuppression is irreversible without stem cell rescue. Increasing immune responses against the malignancy made possible the use of reduced intensity conditioning which provoke reversible myelosuppression without stem cell support.

In our center between 2001 and January 2012: 346 patients were transplanted: 291 autologous transplants and 55 allogeneic transplants from sibling donors. Forty two cases were children. For autologous setting: 144 cases were multiple myelomas and 143 of the received high-dose melphalan, 137 cases were lymphomas and 132 received BEAM conditioning, 4 cases were neuroblastomas (CEM conditioning), 3 Ewing sarcomas (Bu/Mel), 1 germiinal tumor (CEM) and two AML (one Bu/Cy and one Ida/Arac).

For allogeneic setting 39/55 were myeloablative conditioning (14 with TBI, 19 with Bu/Cy, 6 cases with ATG/CFA), 16 cases were reduced intensity conditioning (RIC) due to comorbidities or previous autologous stem cell transplants. The RIC conditioning were all fludarabin-based: 6/16 were Flu/Bu, 6/16 were Flu/Mel, two Flu/CFA, one Flu/Threo.