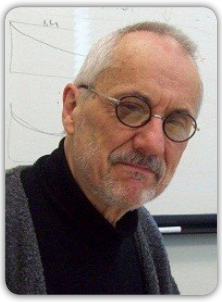

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Hematopoietic cell transplantation for myelodysplastic syndrome and myeloproliferative neoplasms: issues of age, ethics, and uncertainty

Currently hematopoietic cell transplantation (HCT) is the only therapeutic modality with proven curative potential for patients with myelodysplastic syndrome (MDS) or myeloproliferative neoplasms (MPN). However, HCT is associated with certain, potentially fatal complications, such as graft versus host disease (GVHD). As these disorders occur primarily in older individuals who often present with comorbid conditions, a central question is whether non-transplant therapies might be preferable in regards both quality and quantity of life. This question is enhanced by the recent progress in our understanding of the genetics and pathophysiology of the hematopoietic system, and the development of a rapidly broadening spectrum of novel therapeutic agents, which offer a new outlook to many patients who previously had limited treatment options. Further, the life expectancy of patients with MDS or MPN varies greatly, from a few months to a decade or more, and it may not be appropriate aggressive therapy up-front. Retrospective analyses of date in MDS as well as in MPN have shown that patients with "low risk "disease may not benefit from HCT, and comparison of hypomethylating therapy and HCT in patients with MDS have shown that even in higher risk patients the benefit of HCT may not become apparent for two years or more Therefore, particularly in older individuals, a central question may be whether non-transplant therapies might be preferable regarding the quality and quantity of life. From a different perspective, many of modern non-transplant therapeutics come at an exorbitant cost, and, dependent upon the indication, prolongation of life may only be on the order of months, and, furthermore, the gain in comparison to results with more conventional and less costly drugs may only be incremental. Therefore, important aspects to be addressed by any physician treating these patients are the patients' own priorities including their resources, considering the frequently considerable out-of-pocket expenses, even for patients who do have insurance coverage. The discussions also need to include deliberation of the optimum timing of HCT if it is considered, If HCT is considered in very high-risk patients or in patients who have failed other therapies, the success rate is considerably lower than among good risk patients or patients transplanted early in the disease course. This raises questions as to the cost/benefit ratio and the role of the physician as a financial steward of health resource utilization. Of course, some might argue that in view of the cost of modern anti-cancer drugs, HCT may look like a good deal. Thus, modern treatment of hematologic malignancies is presenting us with enormous challenges in regard the uncertainty of success, the cost to the patient and to society, even though little gain might be expected. These discussions need to involve not only the medical community but our society at large.

Speaker Biography

H Joachim Deeg completed his MD in Wilhelms Universitaet, Germany. Presently he is working as a Professor of medicine in the University of Washington. He is also a member of the Fred Hutchinson Cancer Research Center. He is also a visiting professor at Carl Carus University, Dresden, Germany. His research interests are Pathophysiology, genetics and epigenetics of MDS (role of transcription factors in regulation) Inflammatory responses and GVHD (effects of alpha1 anti-trypsin [AAT]), Separation of GVHD and GVL effects by AAT, Iron and allogeneic responses.

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