

# Mayo researchers explore issues related to multiple myeloma treatment

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Multiple myeloma (MM) is a cancer of plasma cells that affects approximately 3 in 100,000 people each year. Although there is no cure for this disease, researchers have developed treatments that help relieve pain, control complications, and slow the progress of MM in many patients. Unfortunately, some of the most effective therapies also have toxic side effects that can pose serious health risks and reduce quality of life. In the October issue of *Mayo Clinic Proceedings*, two articles authored by Mayo researchers address the issue of how to balance the risks and benefits associated with MM treatments.

Since the 1990s, autologous stem cell transplant (ASCT) has become a standard treatment for many patients with MM. This treatment involves using high-dose chemotherapy along with transfusion of previously collected immature blood cells (stem cells) to replace diseased or damaged marrow. While ASCT often provides an effective method of controlling MM, hospitalized patients receiving this treatment are at increased risks for complications such as hospital-acquired infections, some of which are potentially fatal. In addition, the hospital care necessary to treat these complications can be costly.

In a brief report, Mayo researchers led by Mayo Clinic hematologist Morie Gertz, M.D., share study data that demonstrates the benefits of offering stem cell transplantation for MM patients in an outpatient setting. In this study, the Mayo research team followed 716 patients undergoing stem cell transplant for MM at Mayo Clinic from Jan. 1, 2000 through Oct. 31, 2007.

Not all of the MM patients studied were eligible for outpatient treatments, and some required hospitalization after ASCT began due to complications. Of the 716 BMT patients studied, 278 patients (39 percent) completed the transplant procedure as outpatients. The Mayo researchers noted that patients who received this care as outpatients had a high survival rate (99 percent at 100 days). And among those patients who began the treatment as outpatients but required some hospital care, the median hospitalization period was only four days.

"Our experience shows that outpatient transplant is feasible for all patients with multiple myeloma and results in shorter hospital stays and low treatment-related mortality rates," writes Dr. Gertz.

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### **Cure vs. Control**

In a related commentary, Mayo hematologist S. Vincent Rajkumar, M.D., discusses the need to re-examine the goals of clinical research and treatment for patients with MM. Given that MM is generally considered to be incurable, Dr. Rajkumar poses two important questions about treatment goals:

"Should we treat patients ... with the goal of potentially curing a subset of patients, recognizing that the risk of adverse events and effect on

quality of life will be substantial? Or should we address myeloma as a chronic incurable condition with the goal of disease control, using the least toxic regimens, emphasizing a balance between efficacy and quality of life ...?"

Dr. Rajkumar explains that for decades, this "cure vs. control" debate was not necessary because it was assumed that a cure was unattainable. However, since the 1990s, several new effective combination treatments have emerged and produced impressive results. While these advances are encouraging, Dr. Rajkumar advises that treatment decisions must still take into account patients' needs, goals and attitudes toward overall survival vs. quality of life.

"Although cure is the ultimate goal of our long-term research, we need more data from randomized trials before resorting to highly intense therapy that is more toxic and unlikely to lead to a cure outside the setting of a clinical trial."

Source: Mayo Clinic

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