Strategies to protect bone health in hematologic stem cell transplant recipients

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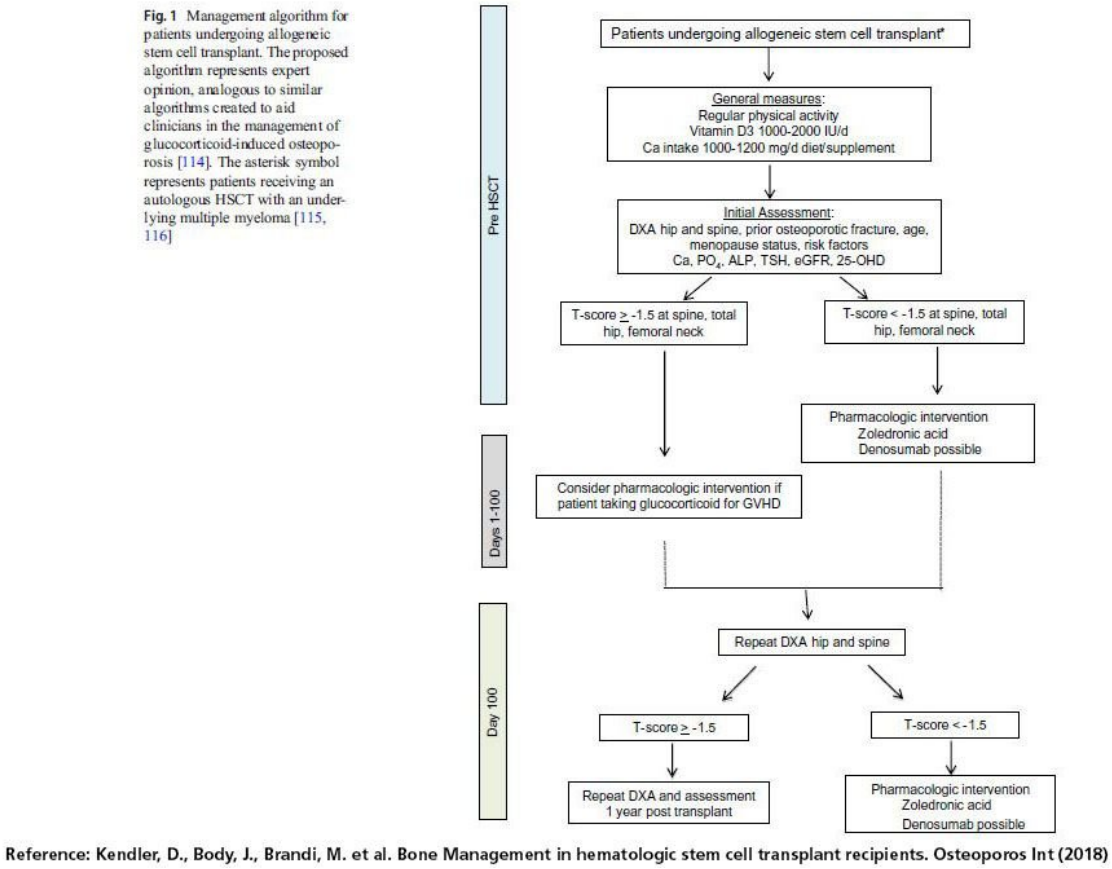

Reference: Kendler, D., Body, J., Brandi, M. et al. Bone Management in hematologic stem cell transplant recipients. Osteoporos Int (2018)

Bone management for patients undergoing allogeneic stem cell transplant. Figure from from: Kendler DL, Body JJ, Brandi ML, et al. Bone management in hematologic stem cell transplant recipients. *Osteoporos Int*. 2018 Credit: International Osteoporosis Foundation

Hematopoietic stem cell transplantation (HSCT) is the treatment of choice for many patients with malignant and non-malignant hematological diseases, such as leukemia and multiple myeloma. The success of recent advances in such transplantation techniques and supportive care measures, has led to greater numbers of long-term HSCT survivors.

Consequently, an increasing patient population is impacted by the late effects of HSCT—most notably, bone loss and osteoporosis. The result is an increased risk of fragility fractures causing severe pain, long-term disability and loss of quality of life.

To address this serious problem, the International Osteoporosis Foundation (IOF) expert Working Group on Cancer and Bone Disease has published a new review which looks at the major factors affecting bone health in HSCT patients, and provides expert guidance for the monitoring, evaluation and treatment of bone loss in these patients.

Lead author of the study, Professor David Kendler, of the Department of Medicine, University of British Colombia, Vancouver, Canada, commented:

"Impaired bone health is among the most significant factors affecting long-term quality of life following HSCT. The HSCT and other forms of cancer treatment, as well as various factors related to the cancer itself, may all contribute to more rapid bone loss and increased fracture risk—these include hypogonadism, HSCT preparative regimens, nutritional factors, and glucocorticoid use. We therefore urge clinicians to ensure that HSCT recipients are monitored, evaluated and, if indicated, treated for bone loss to prevent potentially serious and life-threatening fractures."

The review 'Bone management in hematologic stem cell transplant

recipients' outlines clinical management strategies based on the latest evidence and best practice.

Professor René Rizzoli, chair of the IOF Working Group and Emeritus Professor of Medicine at the University Hospitals of Geneva, Switzerland, added:

"HSCT recipients who have survived hematologic cancers should not lose their hard-won quality of life because of poor bone health. Therefore, it is important that skeletal health is monitored and managed in these patients. The basic 'check list' includes bone mineral density examination, evaluation of clinical risk factors, and general dietary and physical activity measures for all, with appropriate application of osteoporosis pharmacotherapies in those who are found to be at increased risk of bone loss and fracture."

More information: Bone management in hematologic stem cell transplant recipients, *Osteoporosis International* (2018). DOI: 10.1007/s00198-018-4669-4

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