Decision Aids

Assisting patients with multiple myeloma and caregivers with treatment decision making

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A consolidated evaluation of resources on treatment decision aids (DAs) for multiple myeloma (MM) is lacking in the literature. This review identified 29 published DAs. Further analysis of these DAs revealed that the personal values and preferences of patients with MM are not well integrated into the development of these DAs, indicating the need for a more explicit shared decision-making model of MM care delivery. The development and testing of a web-based and individualized treatment DA will likely promote a shared decision-making process in clinical practice, improve patient satisfaction with treatment decisions, and decrease decisional regrets in patients newly diagnosed with MM.

AT A GLANCE
- Future DAs for patients with MM must be web-based and incorporate patients' values and preferences for treatment.
- The shared decision-making model for MM treatment should be built in as an interactive feature of the DA.
- Future DAs must be based on high-level evidence, such as data from systematic reviews or randomized, controlled trials.

A 52-year-old named S.C., a chief financial officer at a law firm, was referred to a multiple myeloma (MM) specialist at a large academic medical center in the Midwest. He visited his primary care provider because of progressive bone pain in the left hip area for more than two months, and x-rays of the left posterior iliac crest and left femur showed osteolytic lesions concerning for malignancy. Additional diagnostic workup completed by the MM specialist revealed anemia with a hemoglobin of 9.8 mg/dl, normal kidney function with a creatinine of 1.1 mg/dl, no hypercalcemia with serum total calcium level at 9.2 mg/dl, a high immunoglobin G (IgG) level of 6,520 mg/dl with a monoclonal spike of 5.9 g/dl on serum protein electrophoresis, immunofixation positive for IgG kappa monoclonal protein, and a high beta-2 microglobulin level of 5.8 mcg/ml. A bone marrow biopsy showed 60% monoclonal, kappa-restricted plasmacytosis with intermediate cytogenetic risk profile consisting of t(4;14), 1q gain, and high plasma cell S-phase based on the updated Mayo Clinic mSMART guidelines (Mikhael et al., 2013). Magnetic resonance imaging of the skull, spine, and pelvis revealed multiple focal lesions on the frontal bone, lumbar spine, left posterior iliac, and left femoral bones. S.C. was diagnosed with symptomatic MM requiring therapy. S.C. asked his nurse for available resources on treatments for newly diagnosed MM so he could make an informed treatment decision.

Research studies involving individuals newly diagnosed with MM reveal an in-creasing patient need for information regarding treatment and disease knowledge (Tariman, Doorenbos, Schepp, Singhal, & Berry, 2015), particularly for those who are diagnosed with MM at a younger age (Rood et al., 2015) like S.C. In another study, 19 of 20 older adults newly diagnosed with symptomatic MM wanted to participate in the treatment decision-making process (Tariman, Doorenbos, Schepp, Singhal, & Berry, 2014). With the growing evidence of patient needs for disease- and treatment-related information and patient willingness to participate in cancer treatment decision making (Tariman, Berry, Cochrane, Doorenbos, & Schepp, 2010), providing patients with relevant and meaningful information on MM treatments can empower them to become active participants in shared treatment decision making (Kane, Halpern, Squiers, Treiman, & McCormack, 2014).

A Cochrane systematic review of decision aids (DAs) involving 86 studies revealed that the use of DAs can increase patients' participation in making decisions, increase knowledge of available treatment choices, enhance clarity in prioritizing what is important to them, and improve their communication with the healthcare team (Stacey et al., 2014).

Review Objectives

The objectives of this integrative literature review are to examine all accessible MM treatment DAs for patients and clinicians and to appraise the strength of evidence supporting these DAs using Melnyk and Fineout-Overholt's (2011) hierarchy of evidence.