

Supportive Care

MOBILITY AND SAFETY IN THE MULTIPLE MYELOMA SURVIVOR

Myeloma Today in conversation with Sandra Rome

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The NLB manuscript is being prepared for health care professionals. What can you share with the patients and caregivers who read Myeloma Today?

People with myeloma are surviving longer due to newly available treatment options. Not unlike other cancer survivors, long-term myeloma survivors must deal with issues that include treatment, recovery from therapies, and the effects of the disease itself. Optimal functioning is key to the quality of life of long-term myeloma survivors.

Multiple myeloma causes anemia and bone disease in as many as 90% of patients. The impact of the side effects at diagnosis and throughout treatment includes decreased mobility, pain, metabolic disturbances from bone loss, neurological compromises, weakness, and fatigue. Mobility challenges vary among survivors, but problems with a lack of mobility or activity affect quality of life and also may be a hindrance to continuing treatment.

The purpose of my section of the NLB Survivorship Care Plan is to provide the health care professional with information on mobility, fall risk, and planned activity as an integral part of the myeloma patient's plan of care. The intent is to provide tools for nurses and physicians assessing and evaluating the newly diagnosed myeloma patient, the patient undergoing treatment, and the long-term survivor.

Patients with myeloma may experience physical changes related to treatment. Some of these changes include peripheral neuropathy, muscle wasting, fatigue, and gastrointestinal problems. These, along with other patient factors, may interfere with daily mobility, safety, and the ability to function safely.

Myeloma patients have particular risk factors related to falls as compared with other individuals ≥ 65 years, regardless of their health status. A myeloma patient may have one or more fall risk factors (e.g. visual problems, orthostatic hypotension, gait and balance problems, medication side-effects, and degenerative joint disease), so a single factor might not necessarily predict a patient's risk for falling. Given the bone problems in myeloma, falls more frequently lead to bone fractures.

What are the recommendations of the NLB regarding mobility?

We recommend that an evaluation of the patient's baseline history and physical assessment is performed with a focus on neurologic function, muscle strength and balance, and visual acuity. Laboratory tests and other health conditions and medications should be reviewed in terms of the impact on the patient's functioning. MRIs or other imaging studies may be indicated prior to prescribing an exercise program. Bone density scans are beneficial for evaluation at diagnosis and annually for guiding the use of bisphosphonates, a class of drugs that prevent the loss of bone mass. Since a patient's condition can change over time, it is crucial that baseline as well as ongoing assessment be performed at every encounter with the healthcare team.

What are some NLB recommendations regarding physical activity?

Planned physical activity and/or exercise should be part of an overall health program that includes nutrition, weight management, and potential complementary therapies, such as support groups. All assessments prior to an activity or

exercise plan should include patient's previous activities and exercise preferences, which may be unique and varied.

There are three types of exercise: aerobic, resistance, and flexibility. The choice of exercises depends on the person's goals, health status, exercise history, and cancer experience. Studies with myeloma patients have included an aerobic component, usually walking, but in some instances, running or cycling plus strength resistance training using exercise stretch bands.

Activity may improve physical fitness, which may improve physical functioning. Studies have shown the feasibility of exercise in all categories of cancer survivors. The benefits of adequate physical functioning and exercise have been shown to have physical as well as psychological benefits. Physical activity has been shown to improve cardio-respiratory fitness during and after cancer treatment, symptoms and physiologic effects during treatment, and vigor post-treatment.

Positive effects of exercise in cancer patients include improved sleep quality, mood, overall quality of life, functional and physical measures, as well as a reduction in cancer-related distress and cancer-related symptoms. Emotional benefits, such as decreased tension, depression, irritability, pain, and fatigue, and higher levels of invigoration and relaxation have been observed with moderate stretching exercise, such as yoga. Exercise may improve treatment completion and possibly reduce toxicity. It may help patients with advanced-stage disease improve physical strength and health, reduce fatigue, and improve emotional status.

Exercise intervention studies in myeloma survivors who participate in exercise programs show that it can be done safely. Even myeloma patients undergoing aggressive treatment, such as a stem cell transplant, can safely participate in an individualized strengthening and endurance exercise program.

It is clear that improvement in functional ability, strength, and balance reduces an individual's risk of falling and having a fall-related injury. For patients with mobility problems and potential risk of falling, the following should be specifically addressed:

- Immediate needs for safety (hospital fall-precautions program, in-home assistance, use of assistive devices)
- Treat or manage the underlying disorder or problem, e.g. neuropathy
- Adjust medications
- Recommend an exercise program that includes training in gait and balance, and stretching
- Assessment and modification of daily routines
- Safety of home environment

What precautions should be considered?

Patients need to be educated as to when they need to modify or abstain from their exercise regimen. For example, when they have a fever, patients should avoid group participation; if they have low platelets, a greater concern for strenuous activity and maintaining security of balance needs to be emphasized. Patients with balance problems may need to use a chair or wall for balance.

Patients must be cautioned to listen to their own bodies and abstain from activities that cause discomfort. Clinicians should recommend safe activity as part of the plan of care for every patient. On the one hand, a patient who had been active previously may not want to adhere to restrictions such as calling for help or using a walker. On the other, a sedentary individual may not understand the importance of exercise on bone health. Safe mobility and physical activity programs need to be tailored to the needs of each individual patient.

In any setting, the immediate need for patient safety (e.g. prevention of falling) should be the priority, and the patient's environment should be assessed and modified to maximize safe mobility (e.g. rug placement, handrails, and grab bars).

What about ongoing assessment and readjustment?

Cancer rehabilitation is seldom linear; myeloma survivors may have varied problems and symptoms over time, such as pain, neuropathies, etc. Ongoing patient assessment of risk of falling, physical activity, medications and their side-effects, laboratory and diagnostic tests, nutrition, and adequate management of other health issues is essential.

Maintaining a weekly exercise log helps patients track the frequency, intensity, and duration of the exercises they perform. Based on patients' documented exercise performance, programs could be altered to best accommodate their physical functioning (e.g. if the patient is feeling very fatigued the intensity of the exercises can be lowered accordingly).

Any closing comments?

Whatever is recommended or endorsed as exercise or activity needs to be carefully evaluated by the patient's healthcare providers. Patients and their family members should be instructed to tailor the patient's activities based on daily health status and communicate with the healthcare team regarding any questions or concerns they might have.

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