A Multidisciplinary Geriatric Supportive Care Model For Patients With Hematologic Malignancies

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INTRODUCTION

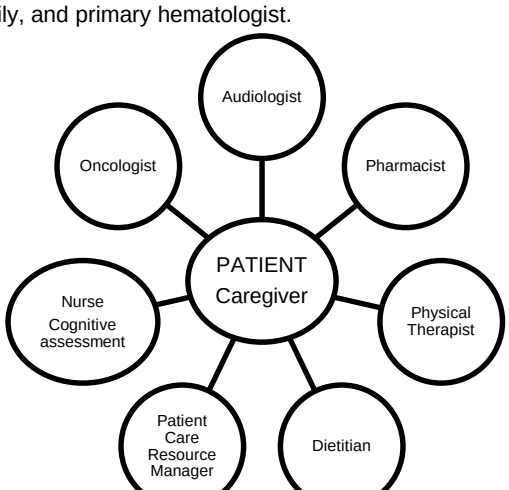
Older adults with cancer is a growing demographic, the population is estimated to double in the next 15 years[1]. Older adults with hematologic malignancy represent 28% of newly diagnosed cancers[2]. Treatment for hematologic malignancy is evolving. However, patients are prone to functional decline related to anemia, treatment, and disease associated fatigue. Identification and intervention for factors that effect quality of life are crucial for reducing chemotoxicity, improving outcomes, and quality of life (QOL)[3-5]. A Geriatric Assessment (GA) is used to assess and intervene upon geriatric syndromes, but incorporation into routine clinic can be time and resource consuming. Here we provide context for a multidisciplinary care model for aging adults with Blood Cancer.

OBJECTIVES

1. To identify potentially modifiable geriatric syndromes using a GA in older adults with blood cancer.
2. To implement interventions to improve QOL and clinical outcomes for older adults with blood cancer.

METHODS

We implemented a multidisciplinary care model for older adults with blood cancer (≥70 yrs) utilizing a specialist team: oncologist, pharmacist, nurse case manager, cognitive assessment nurse, nutritionist, physical therapist, and audiologist, in one visit. During the clinic visit, patients are simultaneously roomed, and providers move from one room to the next in 20-25 minute increments. Patients are seen by seven providers in one clinic visit; maximizing time utilization and decreasing redundancy in care. This allows for a patient-centered care model focusing on factors unique to aging in the blood cancer population.
The physician summarizes recommendations for the patient, family, and primary hematologist.



MULTI-DISCIPLINARY CARE MODEL

Functional decline and falls are associated with depression, tinnitus induced imbalance, malnutrition, and a 3-fold increase in mortality in older adults[6,7]. Cognitive decline is associated with 6-fold increase in mortality[8]. Hearing loss results in social isolation and adds to cognitive decline which improves on correction of hearing[9]. Performing activities of daily living and good social support are critical to autonomous QOL. GA includes evaluations of function, cognition, psychological status, social support, nutrition, and medications[10].

Geriatric Syndrome	Sub-specialist	Assessment / Tools
Polypharmacy Inappropriate medication use	Pharmacist	- **Beer's criteria** for inappropriate medication use. - Review of medications (prescription and non-prescription) with side effects, purpose, interactions, high-risk therapeutic classes. - De-prescription.
Hearing Loss	Audiologist	- **Hearing evaluation** with a combination of pure tone measurements and speech hearing acuity testing (audiology booth within clinic). - Evaluation of early indicators of noise-induced hearing loss. - Recommendation of hearing assistive devices/protectors.
Social support	Patient Care Resource Manager	- Evaluation of social support and caregiver dynamics - Assessment of home safety, coping abilities to deal with health status, and spiritual/cultural/religious support. - Assessment of **activities of daily living (ADL)** and **instrumental activities of daily living (IADL).**
Physical deconditioning and Falls	Physical therapist	- Examination during weight transfer, **sit to stand times, gait, posture, timed up and go, and transfers.** - Recommendations to promote movement, reduce pain, restore function, and prevent disability. - Education on prevention of fall risk.
Cognitive Impairment	Nurse Screen Physician	- Identifying memory, and concentration deficits using the **Blessed Orientation Memory Concentration Test (BOMC).** - Evaluation of decision-making capacity, risk for delirium, and life expectancy. - Referral to a specialized memory clinic.
Malnutrition and Weight loss	Dietician	- Identification of malnutrition using the **Mini-Nutritional Assessment.** - Evaluation of weight loss, current diet/intake, oral supplements, appetite, and any barriers to oral intake. - Recommendations based on each patient's caloric needs and protein intake in the form of counseling, educational material, and supportive contact.
Geriatric Syndromes and Summary of Care	Physician	- Evaluation of psychological distress including depression and anxiety, quality of life expectations and social engagement. - Chemotherapy toxicity - **Cancer And Aging Research (CARG) chemotherapy toxicity calculator** - Geriatric syndrome: fatigue, falls, insomnia, etc. - Education and summary for patient, family and primary hematologist.

CONCLUSIONS

A multi-disciplinary consultative geriatric hematology clinic lends valuable insight into patient frailty, chemotoxicity, and QOL. This care model illustrates how a consultative geriatric hematology clinic can be used in routine clinical practice.

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