

Rehabilitation and Long-Term Physical and Functional Implications When Treatments for Head and Neck Cancer are completed

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Abstract

Head and Neck cancers and their treatments affect the whole person, family and social relationships. It is recognized that loss of weight, energy, strength and muscle mass decrease functioning in this population. Patients can lose weight prior to, during and/or after treatment, despite intensive nutritional support. Many patients must also cope with changes in breathing, chewing, swallowing, speaking and physical appearance. After combined modality treatments end, patients frequently have persistent pain, ongoing fatigue and poor quality of life. Can we improve on this situation?

The Cancer Nutrition Rehabilitation (CNR) program at our university health centre addresses complex problems from a multidimensional perspective with patients and family. This poster presentation will describe our experience with a consecutive prospective sample of head and neck cancer patients (n=22) referred to the CNR program and the outcomes of repeated measurements (distress, symptoms, quality of life and relations with others) before and after participating in an 8-week individualized ambulatory program. **The role of nursing within the program and addressing transitional challenges encountered by patients will be presented.**

Questions

Do patients who have completed combined modality treatments for cancer of the head and neck, report lower levels of distress, and symptoms intensity, less impact of their symptoms on their daily life and better perceived quality of life, after participating in our 8 week CNR program?

What interventions do nurses in the CNR program most frequently carry out to help head and neck cancer patients adjust to their long-term effects of cancer and cancer treatment?

Results

Characteristics of Subjects	Cases N=19 Percent or Mean + SD
Squamous Cell Cancer	68% (13)
Age (yrs) (range 38-71yrs)	55.5 yrs ± 9.6
Sex (males)	84.2% (16)
Living with Spouse	63.2% (12)
Weight changes (recent loss ≥10% body weight)	84.2% (16)
Time since end of treatments - average	4.31 months ± 4.46
≤ 6 months	84.2% (16)
Long-term effects present at initial evaluation	
- Dysphagia	63.2% (12)
- Dry mouth (xerostomia)	84.2% (16)
- Changes in taste and/or smell	89.5% (17)

Background

CNR Interdisciplinary Team

- Physicians
- Nurses (Oncology Pivot Nurse, CNS, & Nurse Researcher)
- Physiotherapist (PT)
- Occupational therapist (OT)
- Nutritionist
- Psychologist
- Social Worker
- Researchers



CNR Ambulatory Program

- 8 week patient centered program
- supervised exercise program with PT (1-2x/wk)
- home exercise plan
- individual follow-up in clinic with CNR team
- referrals for psychosocial support as required
- weekly psycho-educational groups
- caregiver education and support

Role of Pivot Nurse

- screening and triage
- primary contact resource
- symptom management and support
- coordination of care during program
- referrals post-program for continuity of care and ongoing support

The global objective of the CNR Program is to, through an interdisciplinary approach, empower individuals who are experiencing loss of function, fatigue, malnutrition, psychological distress and other symptoms as a result of cancer or its treatment to improve their own quality of life.

Methods

Population:

- 19 consecutive patients with Head and Neck cancer who participated in the CNR program and completed pre and post evaluations

Design and statistical methods: Measures were completed by patients at initial and final CNR evaluation. Pre and post results were then analyzed retrospectively using paired t-tests to determine levels of significance for observed changes. Nursing interventions data were drawn from daily statistics kept by the Pivot Nurse.

Measures:

- Distress Thermometer (DT) (scored 0 = No distress -10 = worst possible)
- Modified - Edmonton Symptom Assessment Scale (ESAS) (12 items; scored 0 = none -10 = worst possible) includes Quality of Life Score
- M.D. Anderson Symptom Inventory (MDASI) Core Items - Impact of Symptoms on Function (subscale) (scored 0 = none - 10 = worst possible)
- Daily nursing statistics (frequency & types of interventions)
- Body Weight
- Distance of 6 minute walk

Figure 1. Theoretical Model of Symptoms and Impact Interaction

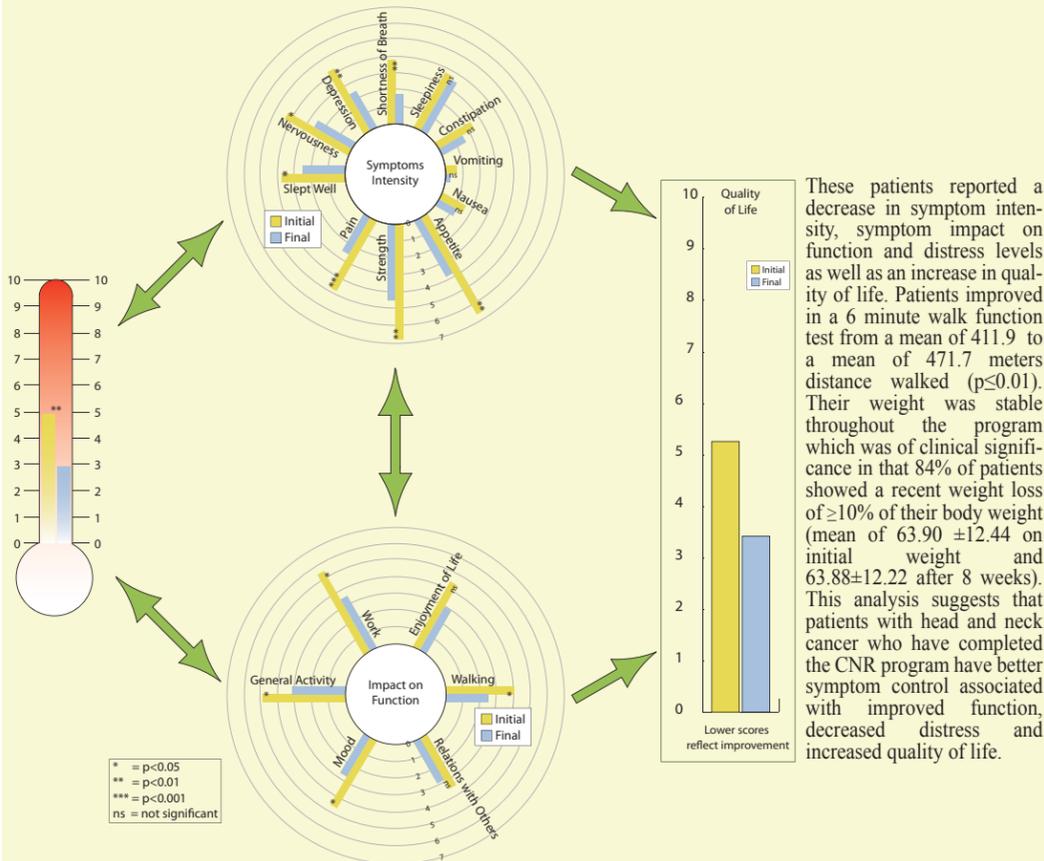


Figure 2. Categories of Nursing Interventions for Patients Treated for Head and Neck Cancer

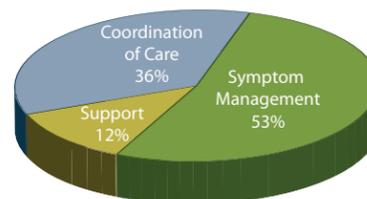


Figure 3. Symptom Management

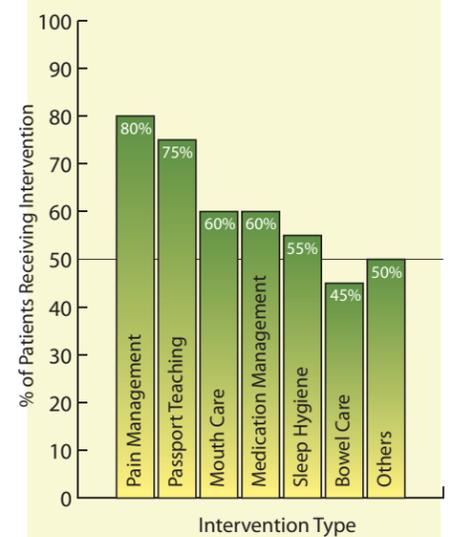
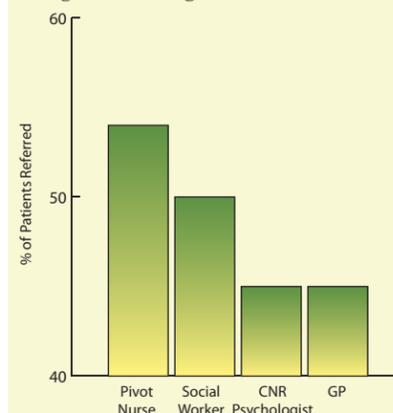


Figure 4. Nursing Referrals to Resources



Over half of the patients required referral to the psychologist and social worker. Post-program referrals for continuity of care were made to the Head and Neck Pivot Nurse and to family physicians (GPs).

Pain, mouth care and sleep disturbance required a high frequency of intervention. The Patient Passport, a patient navigation and symptom-tracking tool, was used to empower patients to self-monitor and manage their care.

Discussion

- After completion of the 8-week CNR program, subjects reported significant improvements in quality of life, appetite and strength, and significant reductions in distress, pain, shortness of breath, sleep disturbance, depression and nervousness (Fig 1 Symptom Intensity and Quality of life).
- An interdisciplinary approach, as seen in the CNR program, is integral for empowering patients treated for Head and Neck cancer to learn effective self-care management to deal with their unique physical, functional and psycho-social challenges.
- Although direct causal relationships are difficult to infer, this analysis and patient report suggest that better symptom control is associated with improved function, decreased distress and increased quality of life for this group of patients. The proposed Theoretical Model of Symptom and Impact Interaction (Fig. 1) represents how distress levels, perceived symptom intensities, impact on function and quality of life interact with each other. Using a holistic perspective at each evaluation

provides an opportunity to compare before and after snapshots of the patient self report outcomes (Quantitative and Qualitative).

- The CNR pivot nurse ensures (Fig. 2) optimal symptom management, continuity of care (information, management and interpersonal networking) for successful patient family navigation and support for patients and family through close collaboration with the CNR team. By acting as the hub of communication the nurse also provides links to resources ensuring continuity of care. (Fig. 4)

- Psychosocial support, including support for caregivers plays a major role in the process of empowering these patients to learn to self-manage their symptoms and to attain coping skills in adjusting to their post-treatment reality. As symptom impact on "relations with others" and "enjoyment of life" did not improve significantly, we hypothesize that a longer delay may be necessary before this improvement occurs.

Limitations

- The absence of fatigue scores for comparison. The Sleepiness - dimension in the Modified ESAS is not equivalent to fatigue.
- The small sample size & descriptive nature of the study limits its generalizability beyond our CNR program
- Few studies examine the prevalence and experience of

Conclusion

- Interdisciplinary CNR team is an effective approach in reducing patient's suffering from physical and functional long term effects of combined modality treatment for head and neck cancer following treatments
- CNR nurse pivotal to patients' managing and reducing symptom intensity thereby recovering independence, daily activities, and quality of life
- Team works with patient and family caregivers to provide support/clarify interpersonal family roles and communication throughout 8 weeks of CNR.

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