Development of Algorithms for Rehabilitation of Breast Cancer Treatment-Related Sequelae

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Introduction

- Common cancer treatment-related sequelae secondary to chemotherapy, radiation, and/or surgery include:
  - Cancer-related fatigue (CRF)
  - Chemotherapy-induced peripheral neuropathy (CIPN)
  - Breast Cancer-Related Lymphedema (BCRL)
- Surveillance model exists for BCRL as guidelines for early detection

Cancer-Related Fatigue

- The presence and severity of fatigue should be assessed at the initial visit, regular intervals during and/or following cancer treatment, and as clinically indicated.
- Questions to ask at each visit:
  1. Are you experiencing any fatigue?
  2. How severe has it been on average in the past week? (See VAS)
  3. How does fatigue interfere with your ability to function?
- Mild (0-3):
  - Patient education and common management strategies
- Moderate (4-6):
  - Use a visual analog scale, ask the patient to rate their fatigue (0 = “no fatigue” to 10 = “worst fatigue imaginable”)
- Severe (7-10):
  - Refer to appropriate rehabilitation professional
- Educate on importance of physical activity

Chemotherapy-Induced Peripheral Neuropathy

- Change in TNS < 5 from baseline OR</c10><c10>2/4 in all categories AND
  - No motor symptoms
- Prior to beginning chemotherapy: Obtain baseline Total Neuropathy Score (TNS)
- While undergoing chemotherapy:
  - Reassess with TNS every visit
- After completion of chemotherapy:
  - Reassess with TNS quarterly for one year

Overall Recommendations

- Current prospective surveillance models demonstrate cost saving benefits of early detection of BCRL
  - Prospective Surveillance Model: $636
  - Traditional Approach: $3,124
  - Total Cost Savings: $2,488
- Early detection of other cancer treatment-related sequelae could also have cost saving benefits and decreased patient burden
- Algorithms highlight appropriate triggers for rehabilitation referrals if impairments are detected

Breast Cancer-Related Lymphedema

Pre-Operative Evaluation

- Baseline Measurements
  - Interstitial Fluid Assessment
  - Biomechanical Machine
  - Circumferential Measurements
  - Strength Assessment
  - Dynamometer
- Gross Range of Motion
  - Upper extremity ROM
  - Cervical ROM
  - Trunk ROM
- Outcome Measures
  - FACT-B+4
  - DASH
  - Pain
  - NPRS scale

If impairments are identified, refer to appropriate rehabilitation program.

Purpose

- Create algorithms for early screening and detection of cancer treatment-related sequelae
- Identify appropriate triggers for referrals to rehabilitation professionals

Methods

- Performed needs analyses with two local oncology providers
- Organized a focus group with cancer survivors at a local cancer community center
- Used current surveillance model as conceptual framework

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References