Making the Business Case for Implementing Prehabilitation Services

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Prehabilitation emerged out of orthopedics as a concept to optimize patients before surgery. Today, prehabilitation is considered best practice among oncology rehabilitation practitioners, and it includes strengthening the musculoskeletal, cardiovascular, and nervous systems in preparation for a forthcoming physiologic insult, such as those related to and/or occurring during radiation, surgical, chemotherapeutic, or targeted therapeutic treatment for cancer. Prehabilitation occurs between the time of cancer diagnosis and the beginning of acute treatment. It includes physical and psychological assessments that: 1) establish a baseline functional level, 2) identify impairments, and 3) provide targeted interventions that improve a patient’s health to reduce the incidence and the severity of current and future impairments.1 Emerging research and consensus panels strongly endorse incorporating prehabilitation concepts into routine cancer care before beginning any treatment regimen.2-6

THE PROBLEM
Through great advances in cancer therapies, patients are living longer, but with this increased life expectancy comes a greater impact of treatments on a patient’s functioning. Cancer and its treatments can have immediate and delayed detrimental effects on a person’s ability to perform functional tasks and activities of daily living (ADLs), and on overall quality of life (QOL).7 These are often caused by impairments in the musculoskeletal system, such as muscle weakness, loss of joint range of motion, and pain. Other movement systems can also be affected, including the neuromuscular, cardiopulmonary, and vascular systems, which may result in cardiovascular deconditioning, increased fall risk, cancer-related fatigue, neuropathies, cognitive impairments, and lymphedema. Prehabilitation can help minimize the impact of all these conditions, but there is no standard model for developing and implementing a cancer prehabilitation program. While it is estimated that 53% of adult-onset cancer survivors report problems with physical function during and after their cancer treatment, only about 2% of these patients receive targeted interventions for these issues.8-9

A related concept to cancer prehabilitation is called prospective surveillance, which is defined as a “proactive approach to periodically examining patients and providing ongoing assessment during and after disease treatment, often in the absence of impairment, in an effort to enable early detection of and intervention for physical impairments known to be associated with cancer treatment.”10 Early identification of issues allows the healthcare team to refer or screen for issues if initiating a cancer prehabilitation program is not be safe or appropriate without rehabilitative or medical supervision or clearance.10

THE SOLUTION
To best prepare patients for the physiologic and psychosocial impacts of cancer treatment, a multimodal prospective
Improving health outcomes, including patient outcomes post-surgery
• Reducing patient rehabilitation visits after cancer treatment
• Decreasing hospital LOS (length of stay)
• Decreasing costs
• Improving patient QOL.

CASE STUDY ONE
In Ontario, Canada, a randomized controlled trial of 116 patients diagnosed with colorectal cancer assessed whether a four-week prehabilitation program improved functional capacity of elderly patients scheduled for colorectal cancer surgery. Interventions included a walking program, exercise-band strengthening, and nutritional consultation. Patients in the prehabilitation group demonstrated an increased amount of physical activity and improvement in the 6-minute walk test. The study also showed an increased number of patients meeting current physical activity guidelines. Study investigators concluded that a four-week trimodal prehabilitation program improved physical activity levels and functional walking capacity.

CASE STUDY TWO
A patient with stage I lung cancer presented at diagnosis with several comorbidities, including osteoarthritis, limited mobility, and dyspnea (shortness of breath). The patient had previous surgeries for knee and back pain and was deconditioned. After assessment, her physician concluded that the patient would likely experience poor outcomes from surgery and would likely need to go to a nursing facility post-procedure. The patient was sent to a prehabilitation program. Following six weeks of balance training, body and function strengthening, and aerobic endurance, the patient was reassessed and deemed fit for surgery. After a lung resection, the patient returned home after only three days in the hospital. She then

surveillance and prehabilitation program is effective and fiscally responsible. This type of program leverages the frequently untapped knowledge base and skill set of physical therapists (PTs) and other rehabilitation professionals into the cancer care continuum. Multimodal prehabilitation programs that address the myriad of issues experienced by cancer patients have been shown to be more effective than focusing on one health domain. For example, for patients with breast cancer, prehabilitation programs might include general conditioning exercises, targeted upper body exercises, nutritional optimization, stress reduction, and smoking cessation. Depending on the patients’ status and medical complexity, prehabilitation can be delivered as a therapy visit for an individualized exercise prescription, as ongoing supervised exercise in a gym or therapy clinic, or through traditional rehabilitation services.

IMPROVING QUALITY OF CARE & REDUCING HEALTHCARE COSTS
In patients with cancer, research shows that better physical performance and less pain and weakness is associated with:

• Fewer post-operative complications and less prolonged disability
• Lower rates of hospital admissions or re-admissions
• Better QOL, less fatigue, and less emotional distress
• Reduced mortality, reduced cancer recurrence, and fewer adverse effects.

A focused prehabilitation program couples physical therapy with holistic care that includes nutritional support, stress reduction strategies, and nurse navigator intervention. By focusing on specific outcomes, prehabilitation allows clinicians to intervene earlier—sometimes before physical impairments manifest—and monitor patients throughout the cancer treatment process, thereby:

• Improving health outcomes, including patient outcomes post-surgery
• Reducing patient rehabilitation visits after cancer treatment
• Decreasing hospital LOS (length of stay)
• Decreasing costs
• Improving patient QOL.
received four weeks of physical therapy before transitioning to a local exercise program. The patient’s baseline movement assessment score was 91; after prehabilitation, she saw a 53% decrease in her functional impairment. Specifically, the patient improved her walking distance and her dyspnea had resolved.

**CASE STUDY THREE**

This case study illustrates the benefits of performing prospective surveillance screenings at key points in a patient’s cancer journey (during tumor boards and at a corresponding multidisciplinary clinic). After screening, a 39-year-old patient with stage II breast cancer was identified as having debilitating fatigue and weakness requiring physical therapy. A rehabilitation program focusing on exercise and strength helped her function and complete her cancer treatment regimen. After treatment, the patient was screened again during the establishment of her cancer survivorship care plan. Additional physical therapy needs were identified and successfully treated. Without these prospective surveillance screenings, this young, early-stage patient would likely not have received these services, and loss of function or unwarranted alterations to her cancer treatment may have occurred.

**PAYMENT FOR PREHABILITATION**

Much of the direct fiscal benefit from cancer prehabilitation programs is through increased referrals to outpatient rehabilitation services, such as physical therapy, occupational therapy, or speech-language pathology. Through prospective surveillance screenings, patients requiring rehabilitation can be directly referred to the specialty department. Healthcare-system-based cancer prehabilitation programs present a unique opportunity for development of an out-of-pocket service line. Under the guidance and supervision of their healthcare team, many patients with cancer could benefit from exercise wellness programs. These may be supervised by a PT with specialty oncology training or a similar qualified healthcare professional. If pain or movement disorders arise, patients can be referred directly to a PT for diagnosis and intervention. Generally, to be sustainable such programs require a nominal out-of-pocket fee ($10 to $20) and for between 2 and 3 patients at a time to be profitable.

Insurance companies recognize the benefits exercise and wellness have for patients with cancer. Accordingly, if cancer patients require an exercise prescription from a licensed PT due to medical or physical morbidities, these services are consistently covered as long as the clinical documentation reflects: 1) medical necessity, 2) physical factors, and 3) short- and long-term impact of these services. If patients regress or progress during their cancer journey, an update to an exercise prescription is covered by the insurer if properly documented. CPT codes for coverage of exercise prescription include a PT Evaluation (97161, 97162, 97163, depending on complexity) as well as Therapeutic Exercise (97110).

In addition, regular prospective surveillance screening results in identification of movement impairments, pain, balance issues, and/or patients at risk of developing lymphedema. As cancer prehabilitation programs help to establish referral sources to interdisciplinary team members, new referrals for traditional rehabilitation services may also be generated. This is doubly impactful in the era of fewer rehabilitation visits and loss of rehabilitation market share in traditional service lines, such as orthopedics.

**KEY STEPS TO IMPLEMENT BILLING FOR EXERCISE PRESCRIPTION FOR CANCER PREHABILITATION**

1. Establish who will do periodic screening and assessment procedures (generally not billed) and set up referral mechanisms to prehabilitation/rehabilitation professionals.
2. Ensure that the PT has specialty certification or advanced training in oncology.
3. Establish a tracking mechanism for results of prospective surveillance screening, including referrals for exercise prescription, traditional rehabilitation, and medical clearance before exercising.
4. Ensure that the PT Department uses conventional billing methods and guidelines for individual insurance payers to obtain payment for exercise prescription or traditional rehabilitation services.
5. Track all charges and charge capture related to rehabilitation services interventions.

REFERENCES