Physical therapists have been serving in wound care since World War I. Have they evolved to their full capacity in your clinic?
A ny effective multidisciplinary wound care team will typically consist of a well-represented blend of healthcare professionals who lend their individual, unique areas of expertise to form a collaboration that shares a vision to meet the optimal results that patients deserve. Based on a continuously evolving level of training, required education, and scope of practice for the role of the physical therapy professional, physical therapists (PTs) and physical therapists assistants (PTAs) should be considered among key contributors to any wound care team working in any setting within the care continuum.

The utilization of the PT has continued to grow over the years specifically in the hospital-based outpatient wound clinic (HOPD), primarily as it relates to implementing healing strategies that impact offloading, positioning, range of motion, and maximizing overall function and quality of life among those living with chronic, nonhealing wounds. The PT can also be a resource for recommending therapies and assistive devices that improve strength, ambulation/mobility, and overall wound healing. Furthermore, impediments to wound therapy may be reduced or even eliminated when the PT is involved in a collaborative approach to care.

This article will outline the historical role physical therapy has played in wound care, the increased value PTs and PTAs bring to the healthcare delivery system, and the impediments still needing to be overcome in order to maximize these professionals’ true scope of practice within this industry.

A STORIED HISTORY

PTs can trace their wound care roots back to as early as 1917. During World War I, European countries created programs directed at restoring wounded soldiers back to duty or civilian life as soon as possible in a physical condition that would enable them to function at the highest possible degree consistent with their injuries.1 In 1917, the British surgeon general designated a committee to evaluate and report on such a program being conducted in British Army hospitals. As a result, on Aug. 22, 1917, the Division of Special Hospitals and Physical Reconstruction was established.1 Defined as maximum mental and physical restoration of the individual, “physical reconstruction” was achieved through the use of medicine and surgery and was supplemented by physical therapy; occupational therapy; or curative workshop activities that included education, recreation, and vocational training. “Physical therapy” was described as consisting of hydrotherapy, electrotherapy, and mechanotherapy; active exercise; indoor and outdoor games; and massage.1

During the same war, the US Army began to rehabilitate wounded soldiers who had suffered amputations, burns, cold injuries, wounds, fractures, and spinal cord injuries (SCIs). Those workers were referred to as “reconstruction aides” who later became known as “physiotherapists” and, finally, “physical therapists.”1 In modern times, the PT has become more involved in wound therapy due to the benefits that whirlpool baths and electrical stimulation (e-stim) provided. However, over time, in order to obtain licensure, PTs have required advanced levels of education and have seen additional modalities added to their repertoires to help heal chronic wounds while the use of whirlpool has become limited.

EVOLUTION OF PTs IN WOUND CARE

Over the years, the wound care industry has likewise experienced an increase in the utilization of PTs that essentially could qualify as a reformation. Whether it’s an SCI patient with new skin breakdown in the rehab setting, a debilitated patient with a new pressure ulcer in the nursing home, or a post-surgical outpatient with a dehisced incision, PTs have earned roles in areas throughout the care continuum to aid in healing by utilizing integumentary skills, available tools, and a hands-on approach to care. Today, the PT is required to enter the field with a doctorate of physical therapy (DPT), excluding Puerto Rico (where master’s level is the standard). All physical therapy education programs, except Puerto Rico, offer only DPT programs.2 Not coincidentally, the scope of practice has evolved to allow PTs in all states to perform sharp* debridement of devitalized tissue in addition to other wound healing procedures and energies, such as pulsed lavage with suction; e-stim; high-frequency ultrasound; contact and noncontact low-frequency ultrasound; monochromatic infrared energy; laser; negative pressure wound therapy; ultraviolet light therapy; Unna’s boot application; short-stretch bandaging; multilayer compression bandaging; contact casting; and lymphatic drainage techniques. According to the American Physical Therapy Association’s (APTA’s) Guide to Physical Therapist Practice, the PT provides “application of therapeutic procedures and modalities that are intended to enhance wound perfusion, manage scar, promote an optimal wound environment, remove excess exudate from a wound complex, and eliminate nonviable tissue from a wound bed. Procedures and modalities may include: sharp* debridement; dressings; orthotic, protective, and supportive devices; physical agents and mechanical and electrotherapeutic modalities; and topical agents.”3 Those PTs who are members of the APTA are also entitled to join the “special interest section” devoted to clinical electrophysiology, which serves as an additional resource to therapists that promotes research and education.

DISCUSSION ON DEBRIDEMENT & E-STIM

The PTs’ scope of practice also lends to the preparation of the wound bed by eliminating nonviable tissue or to simply stimulate the wound bed. These methods include all forms of debridement: autolytic, enzymatic, mechanical, and sharp.* A therapist can use scalpels, scissors, and/or tweezers to perform sharp* debridement for removal of necrotic tissue over several sessions, if necessary, when surgical debridement by the physician is not an option due to the patient’s condition but a large amount of dead tissue exists. Depending on the specific wound, selective de-
broidment can be conducted by the PT to achieve desired results. (Some forms of sharp* or other forms of ongoing debridement, such as enzymatic, may still be warranted after surgical debridement is performed by a physician.)

E-stim is another modality used primarily by therapists to enhance chronic wound healing. There are various forms of e-stim, which has been studied on chronic lower-leg wounds and pressure ulcers. E-stim has the ability to restart or accelerate the repair process by imitating the natural electrical current within injured tissue. Additionally, e-stim has been suggested to reduce infection, improve cellular immunity, increase perfusion, and accelerate wound healing.4 Other studies have demonstrated that e-stim aids in perfusion as well as improving venous flow. In 1994, the Agency for Healthcare Research & Quality issued a statement recommending the use of e-stim for pressure ulcers that have proven unresponsive to conventional therapy.5 Various governmental and private payer policies recognize e-stim as “medically necessary” for the management of chronic ulcers when used as an adjunctive therapy on wounds that are not progressing for a certain timeframe (30-days). Their covered indications include venous ulcers, diabetic ulcers, arterial ulcers, and stage III and IV pressure ulcers. In addition, the National Pressure Ulcer Advisory Panel continues to support e-stim as a useful therapy for nonhealing wounds such as recalcitrant stage II, III, and IV pressure ulcers.

OTHER PT FUNCTIONS

PTs have the ability to assist the wound care team in other aspects of care such as patient education and mobility. According to the APTA, PTs “are healthcare professionals who maintain, restore, and improve movement, activity, and health, enabling individuals of all ages to have optimal functioning and quality of life.”2 PTs typically treat musculoskeletal injuries by utilizing some of the same modalities already referenced in this article. In reality, these injuries are nothing more than closed wounds (eg, sprained ankle) that have to follow the same phases of the healing process in order to improve, even if the patient is an athlete or an older adult. When a therapist works with a patient, including patients with chronic wounds, a separate, thorough multysystem evaluation is needed in order to establish a prognosis, select interventions, and devise an outcome assessment as well as develop a plan of care to match each patient’s needs. When it comes to assessing mobility, the nursing staff typically completes a pressure ulcer risk assessment (eg, Braden or Norton scale) to identify patients at risk for skin breakdowns. As a therapist, the PT will take an additional view of functioning by assessing each subcomponent of one’s mobility, including assessment of range of motion and contractures; strength, sensation, bed mobility and transferring (as appropriate); sitting and standing balance; wheelchair utilization or ambulation; other usage of available durable medical equipment; and gait deviations. In essence, it is the responsibility of the PT within the wound care team to establish a plan of care to keep and restore function. With lack of mobility comes more pressure-related problems, such as contractures, deterioration of muscle strength, increased risk of developing respiratory problems, possibility of aspiration, and debility. PTs also provide assistance with positioning, contracture management, patient/family/caregiver education, and selection of support surfaces.

CHALLENGES STILL EXIST

The physical therapy profession has a well-established role as part of the interdisciplinary wound care team. However, often times it is difficult to overcome the image that many conjure of “therapists”—eg, one who assists athletes, or helps patients out of bed, or provides rehabilitation to improve movement function. In fact, many healthcare settings PTs are still not always directly or indirectly involved with wound patients other than providing functional restoration. Part of this omission may be due to the therapy department’s decision on how therapists need to be used related to staffing and reimbursement opportunities. Finally, part of the reason PTs may not be involved as much as possible could be due to the individual therapists not having an interest in wound care. When establishing the PT’s role within wound management, it is imperative for HOPD directors and administrators to define the PT’s specific duties and scope as team members. If a multidisciplinary team approach is not available, nurses and therapists should still know their respective roles and expectations and be encouraged to establish and maintain an open line of communication to understand how each can improve care, costs, and outcomes. Only when everyone knows their roles can patient care and benchmarks reach maximum potential. As Dr. Meredith Belbin, the renowned management theorist, is quoted: “A team is not a bunch of people with job titles, but a congregation of individuals, each of whom has a role that is understood by other members.”

*For explanations regarding sharp debridement and PT scope of practice, coding, and reimbursement, refer to definitions by state practice acts, the American Medical Association’s Current Procedural Terminology, and the Centers for Medicare & Medicaid Services’ local coverage determinations.

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