

ABPTRFE

American Board of Physical Therapy
Residency & Fellowship Education

Description of Residency Practice: Wound Management

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DRP Wound Management

Preamble

The American Board of Physical Therapy Residency & Fellowship Education, a board-appointed group of the American Physical Therapy Association, has created the following “Description of Residency Practice” to reduce unwarranted curriculum variability; provide residents minimum consistency in learning experiences for that area of practice; and streamline the accreditation process for reporting.

This DRP is the product of collaborative work by ABPTRFE and the American Board of Physical Therapist Specialties through the practice analysis for specialty validation.

While all programs are required to meet the comprehensive curriculum and program requirements as outlined within “ABPTRFE Quality Standards for Clinical Physical Therapist Residency and Fellowship Programs,” the purpose of the DRP is to 1. Establish a consistent curriculum expectation for residency programs within the same area of practice. 2. Provide consistency in program reporting for accreditation processes. The DRP allows flexibility for programs to incorporate additional learning experiences unique to the program’s environment that are beyond the minimum standard expectations.

The DRP for each residency area will undergo revalidation at least once every 10 years. The process for revalidation will be a collaborative process with ABPTS.

I. Type of Program

Wound Management is a clinical area of practice.

II. Learning Domain Expectations

A residency program must have a curriculum inclusive of the learning domains identified within that area’s current validated analysis of practice.

The following information is extracted directly from chapter 2 of the Wound Management Physical Therapy “Description of Specialty Practice.”¹

A. Knowledge Areas of Wound Management Practice

- **Foundation Sciences: Biological and Physical (including changes across the lifespan)**
 - Anatomy and physiology of the following systems:
 - Integumentary.
 - Musculoskeletal.
 - Neuromuscular.
 - Cardiovascular and pulmonary.
 - Anatomical basis of risk factors for acquiring wounds.
 - Tissue perfusion.

¹ “Wound Management Physical Therapy Description of Specialty Practice.” 1st ed. Alexandria, VA: American Physical Therapy Association; 2020. Reproduced with permission. © 2020 American Physical Therapy Association. All rights reserved.

- Sensory physiology of the skin.
 - Pathology/pathophysiology:
 - Integumentary system.
 - Systemic or organ pathology with integumentary manifestations.
 - Signs of abnormal wound healing.
 - Microbiology.
 - Immunology.
 - Pharmacology.
 - Wound bioburden.
- **Behavioral Sciences**
 - Psychosocial aspects of the wounded patient.
 - Communication.
 - Teaching and learning.
 - Health and wellness.
 - Medical ethics and legal implications.
- **Wound Management Clinical Sciences**
 - Normal progression through wound healing.
 - Signs of abnormal wound healing.
 - Lifespan effects on skin anatomy/physiology.
 - Nutritional aspects regarding risk of wounds and slow healing.
 - Etiology of pressure ulcers.
 - Etiology of vascular ulcers.
 - Etiology of neuropathic ulcers.
 - Etiology of atypical wounds.
 - Etiology of traumatic wounds.
 - Etiology of wounds secondary to infectious disease.
 - Etiology of wounds secondary to surgical dehiscence.
 - Types of debridement.
 - Types of dressings.
 - Pain management.
 - Edema management.
 - Scar management.
 - Interpretation of culture results.
 - Interpretation of laboratory tests.
 - Surgical interventions for wound management.
 - Medical interventions for wound management.
 - Therapeutic technologies used in wound management:
 - Electrical stimulation.
 - Negative pressure wound therapy.
 - Pulsatile lavage with suction.
 - Compression.
 - Ultrasound:
 - Low frequency.
 - Noncontact.
 - Ultraviolet.
- **Critical Inquiry Principles and Methods**

The physical therapist practicing as a wound management clinical specialist demonstrates advanced knowledge and skills in critical inquiry by:

 - Assessment and application of research findings:
 - Qualitative and quantitative research designs.
 - Principles of measurement.

- Parametric and nonparametric data.
 - Concepts of statistical power in research designs.
- Appraisal of research findings:
 - Reliability.
 - Sensitivity and specificity.
 - Validity.
 - Statistical testing.
 - Independent and dependent variables.

B. Professional Competencies of Wound Management Physical Therapists

- **Lifelong Learning Through Pursuit of Advanced Knowledge, Skills, and Abilities.**
- **Use of Patient-Centered Ethics and Values in Complex Clinical Decision Making.**
- **Devotion of Time and Effort to Resolve Complex Problems.**
- **Consultation to Contribute Special Knowledge or Expert Opinion in Client-Based, Community, or Academic Settings.**
 - Clients, clients' families, and other health care professionals, including inservices, support groups, and team meetings.
 - Peer review materials, including chart reviews, and peer teaching evaluations.
 - Other venues, including health care disparity issues.
- **Education**
 - Provide educational programs on evidence-based physical therapy for patients with wounds to a variety of audiences, including students, other health care professionals, the public, elected officials, political groups and candidates, and third-party payers.
 - Mentor physical therapists, physical therapist assistants, other health care professionals, physical therapist residents, and students by participating in clinical education and research related to wound management physical therapy.
 - Provide multidisciplinary education on evidence-based wound management; effectively communicate with other disciplines, including physicians, regarding evidence-based wound healing.
- **Professional Development**
 - Maintain state-of-the-art knowledge and skills by participating in continuing professional development, such as residency education, conferences, seminars, structured study, and journal clubs.
- **Clinical Inquiry for Evidence-Based Practice**
 - Apply principles of evidence-based practice in patient and client management.
 - Contribute to the body of evidence in wound management physical therapy, including peer-reviewed and non-peer-reviewed oral or poster presentations and publications.
 - Evaluate the efficacy and effectiveness of examination tools, interventions, and technologies based on available evidence.

C. Psychomotor Skills of Wound Management Physical Therapists in the Patient/Client Management Model

- **Examination**
 - History:
 - Conducting an efficient, effective, and focused patient or client interview to anticipate and detect integumentary impairments by ascertaining the following:
 - Current and previous symptoms.
 - Physical and psychological lifestyle.

- Environmental exposures.
 - Risk factor information.
 - Integumentary or associated organ system disease and related impairments.
 - Motivation for lifestyle change.
 - Patient and, if applicable, family goals.
- Reviewing and interpreting the clinical significance for physical therapy of all available patient and client data, including the following:
 - Patient's or client's chief complaint, symptomology, and goals for physical therapy.
 - Medical, surgical, social, psychological, and family history, including health habits, medications, and risk factors for integumentary disease or damage.
 - Functional status/living environment.
 - General health status and physical examination findings.
- Systems Review:
 - Cardiovascular and pulmonary status:
 - Relating cardiovascular and pulmonary pathophysiology to wound healing.
 - Recognizing cardiovascular and pulmonary symptoms that may impact wound healing.
 - Integumentary status:
 - Relating history of integumentary disorders to wound formation.
 - Musculoskeletal status:
 - Identifying musculoskeletal conditions that contribute to wound formation or cause delayed healing.
 - Identifying tests and measures necessary as they relate to musculoskeletal disorders and chronic wound formation.
 - Neuromuscular status:
 - Identifying neuromuscular disorders that put patients at risk for wound formation.
- Tests and Measures:
 - Computerized pressure mapping:
 - Make clinical decisions for equipment and/or adaptive footwear based on the results.
 - Use pressure mapping equipment for the neuropathic foot.
 - Use pressure mapping equipment for resting and sitting postures.
 - Identify wound locations and risk for contractures.
 - Mobilizing affected joints while minimizing the potential effects of distraction on the wound or periwound tissue.
 - Palpation.
 - Range of motion as it relates to wound formation.
 - Sensory testing:
 - Semmes-Weinstein monofilament testing of the neuropathic foot.
 - Vibration testing with tuning fork of the neuropathic foot.
 - Reflex testing of the neuropathic foot.
 - Tests for present versus absent versus abnormal sensation.
 - Temperature assessment, such as thermography.
 - Tissue identification:
 - Identify wound tissue types including:
 - Eschar.
 - Slough.
 - Vital and devitalized:
 - Adipose tissue.
 - Bone.
 - Cartilage.
 - Fascia.
 - Granulation.
 - Muscle.
 - Subcutaneous tissue.

- Tendon.
 - Vessel.
 - Vascular tests:
 - Arterial:
 - Ankle brachial index.
 - Assessment of deep venous thrombosis.
 - Capillary refill.
 - Claudication testing.
 - Pulse grading – with and without use of Doppler ultrasound.
 - Rubor of dependency.
 - Toe brachial index.
 - Edema:
 - Girth measurements.
 - Pitting edema: time based and depression based.
 - Venous:
 - Venous filling time test.
 - Visual inspection of surrounding and periwound skin.
 - Wound cultures:
 - Interpret results and alter interventions as indicated by results.
 - Obtain specimen and punch biopsies as allowed by state statutes.
 - Perform correct techniques for taking aerobic and anaerobic wound cultures.
 - Recognize signs of infection and indications for cultures.
 - Refer to medical specialist when infection is suspected.
 - Wound measurements:
 - Discover subcutaneous extensions, such as fistulas, sinuses, tracts, tunneling, and undermining.
 - Perform appropriate measuring techniques.

- **Evaluation**

The physical therapist practicing as a wound management clinical specialist demonstrates evaluation by:

- Identifying or relating the following:
 - Past medical and surgical history to wound formation or delayed healing.
 - Medications that affect wound healing.
 - Patient-reported events about the initial cause of wounds.
 - Patient factors that impede wound healing.
 - Social and psychological issues that may contribute to wound formation or impede wound healing.
 - Data obtained from patient history to help make diagnoses.
 - Interpretation of results from tests and measures.
 - Additional information that is needed to make a diagnosis and to develop a treatment plan.
- Identifying wound healing phase for wounds of any etiology.
- Classifying wounds:
 - Pressure ulcers using the National Pressure Ulcer Advisory Panel staging system.
 - Neuropathic wounds using the Wagner and/or University of Texas system.
 - Venous wounds using the Clinical, Etiological, Anatomical, and Pathophysiological Classification system.
 - Burn injuries using Lund & Browder, Rule of 9s, and thickness classification systems.
- Performing critical analysis of function and mobility related to open wounds:
 - Evaluating mobility and detecting components that may contribute to wound formation, such as shear, pressure, and friction in bed mobility; shear produced during transfers; and gait abnormalities.
 - Identifying fall risk in patients with wounds.
- Modifying or continuing intervention based on ongoing evaluation and best available evidence.
- Referring patient or client to other professionals for findings that are outside the scope of the physical therapist's knowledge, experience, expertise, or state practice act.

- **Diagnosis**

The physical therapist practicing as a wound management clinical specialist demonstrates diagnosis by determining differential diagnosis of arterial, venous, neuropathic, pressure, burn, and atypical wounds.

- **Prognosis**

The physical therapist practicing as a wound management clinical specialist demonstrates prognostication by:

- Predicting wound healing trajectory using standardized tools.
- Predicting optimal level of improvement in function, including time to achieve that level, with a high level of accuracy.
- Developing a plan of care that prioritizes interventions related to the recovery process, patient and client goals, resources, risk factors, health, and wellness.
- Selecting and specifically prescribing or modifying interventions related to the patient's or client's anatomic and physiologic changes across the lifespan and the current medical status/stability.
- Selecting and specifically prescribing or modifying interventions based on type and severity of the integumentary and wound pathology, impairment, functional limitation, or disability.

- **Interventions**

The physical therapist practicing as a wound management clinical specialist demonstrates intervention by:

- Coordination and communication:
 - Indicating the plan of care based on sound physiologic principles, the ability of the patient or client to participate, and the resources available.
 - Negotiating barriers to interventions with the patient or client, including cognition, literacy, language, emotional state, socioeconomic status, and scarcity of resources resulting in improved/optimized adherence.
 - Consulting and communicating regarding critical and potentially life-threatening conditions and changes in patient or client status to member(s) of the health care team in a timely and appropriate manner.
 - Demonstrating leadership skills in wound management specialty practice by leading patient rounds, conferences, and team meetings.
 - Actively seeking to increase use of wound management specialty services by referring practitioners.
 - Implementing programs or services designed to prevent integumentary and wound management diseases or conditions in collaboration with one or more of the following: patients, families, care providers, organizations, and the public.
 - Providing consultation services to peer professionals in multiple practice settings regarding patients and clients with wound management risk factors, impairments, functional limitations, and disabilities.
- Patient and client related education:
 - Educating patients and clients about diagnosis, prognosis, treatment interventions, responsibility for health maintenance, and self-management within plan of care – adeptly translating complex concepts into age- and culturally appropriate lay terms.
 - Effectively educating caregivers in therapeutic interventions that integrate specialty techniques – such as off-loading devices, orthotics, dressings, and wound management – into the plan of care.
 - Educating patients and clients in self-monitoring – such as monofilament testing, skin checks, circulation and claudication, glucose monitoring, pain scales, and trauma avoidance techniques – through therapeutic intervention and activities of daily living.
 - Educating patients and clients in functional activities and disability management that correspond appropriately to wound management diagnosis/status and available resources and support systems.
 - Educate patients and clients in health promotion and wellness; risk-factor modification; screening for integumentary and wound management disease presence, progression, or impairments; nutrition; energy conservation; and stress management.

- Educate patients and clients in exercise interventions appropriate to the wound management plan of care.
- Consistently evaluating the result of instructional efforts by observing the patient's or client's ability to perform the skills that were taught and by responding to deficits.
- Specific intervention techniques:
 - Debridement of devitalized tissue: identifying viable and nonviable tissue as well as its anatomy; determining optimal method of debridement; removing nonviable tissue using sharp instruments (scalpel, scissors, forceps, curette), low-pressure irrigation (4-15 psi), and low-frequency contact ultrasound; controlling bleeding that may occur during the procedure; applying enzymatic debridement agents; and selecting the appropriate dressings and therapies to support autolytic debridement.
 - Infection prevention: following guidelines for disposal of all contaminated materials, setting up sterile fields and maintaining integrity of supplies throughout treatment to protect both the patient and therapist, and applying guidelines of infection prevention for all isolation types to a wound care intervention.
 - Total contact casting: strapping, casting, and cast cutting.
 - Alternative off-loading techniques for neuropathic wounds: selecting and applying removable and irremovable cast walkers, accommodative dressings, and orthotics, including materials and their properties, fabrication, fitting, and adjusting using vacuum former, grinder, adhesive felt, and foam.
 - Footwear and shoe selection for the neuropathic foot.
 - Diabetic management education.
 - Dressing selection.
 - Multi-layer compression bandages (full and modified).
 - Negative pressure wound therapy.
 - Electrical stimulation for wound healing.
 - Ultrasound for wound healing.
 - Pulsed lavage with suction.
 - Ultraviolet C for wound healing.
 - Selection of pressure-redistribution surfaces to aid in preventing or to promote healing of pressure ulcers.
- Documentation and administration:
 - Documenting patient subjective and objective medical history, wound characteristics, interventions, reassessment, goals and plan of care, risk assessment tools, and progress assessment tools.
 - Billing for services provided to patients with wounds using appropriate ICD-10, CPT, and HCPCS codes, third-party payer policies, and strategies for appealing coverage issues.
 - Incorporating program building strategies, including ordering equipment and supplies for wound management program.
- **Outcomes**

The physical therapist practicing as a wound management clinical specialist demonstrates outcomes assessment by:

 - Selecting appropriate outcome measures and participating in data collection.
 - Assessing wound healing as well as improvement of patient's or client's activities and participation based on best available evidence and variables specific to the patient or client, such as history, diagnosis, complications, and agreed-upon goals.
 - Choosing appropriate assessment measures to determine initial and long-term responses to intervention.
 - Assessing patient and client function and quality of life.
 - Selecting appropriate, evidence-based outcome measures, such as the Bates-Jensen Wound Assessment Tool, PUSH Tool, and Photographic Wound Assessment Tool, and participating in data collection and national registries.

- Assessing patient compliance with the plan of care as well as strategies to prevent complications and wound recurrence.
- Analyzing and interpreting data to modify future practice.
- Analyzing and interpreting data to modify own future practice.

III. Practice Settings

The clinical curriculum of all accredited residency programs must include a variety of practice settings, as noted below. A resident should experience a minimum of 5% of patient-care practice hours within each setting based on the minimum patient-care practice hours outlined within “ABPTRFE Quality Standards for Clinical Physical Therapist Residency and Fellowship Programs.”

If a residency program is unable to provide each participant with an opportunity to engage in patient care activities within these settings, the program must provide additional learning opportunities (e.g., observation, didactic, journal club, research) related to patient care within these settings for the minimum required hours noted above.

The minimum required practice settings for wound management residency programs are:

- Inpatient facility.
- Outpatient facility.

IV. Patient Populations

The clinical curriculum of all accredited residency programs must include a variety of patient populations, as noted below, specific to sex and age. A resident should experience a minimum of 5% of time in each patient population based on the minimum patient-care practice hours outlined within “ABPTRFE Quality Standards for Clinical Physical Therapist Residency and Fellowship Programs.”

If a residency program is unable to provide each resident with an opportunity to engage in patient care activities within these populations, the program must provide additional learning opportunities (e.g., observation, didactic, journal club, research) related to patient care within these populations for the minimum required hours noted above.”

The minimum required patient populations for wound management residency programs are:

Age

- Adults (22-59 years of age).

Sex

- Female.
- Male.

V. Medical Conditions

The clinical curriculum of all accredited residency programs must include a variety of medical conditions associated with the program’s area of practice (see list below).

If a residency program is unable to provide each resident with an opportunity to engage in patient care activities within most of these conditions, the program must provide additional learning opportunities (e.g., observation, didactic, journal club, research) related to patient care within these conditions.

Programs must use the ABPTRFE template when submitting documentation to ABPTRFE. Medical Condition Form templates are in the [Residency/Fellowship Education HUB](#).

Medical Conditions
Wound Management
Cardiovascular Conditions
Congestive heart failure
Coronary artery bypass graft
Cardiomyopathy
Vascular disease (arterial, venous, lymphatic)
Vasculitis
Vasculopathy
Pulmonary System
Chronic obstructive pulmonary disease
Cystic fibrosis
Endocrine System
Diabetes
Integumentary System
Abnormal scarring
Abscess
Allergic reactions (skin disorders)
Basal cell carcinoma
Bullous pemphigoid
Burns/frostbite
Cellulitis
Contusion/abrasion
Dehiscence
Dermatitis
Drug induced hypersensitivity syndrome
Flaps/skin grafts
Kaposi sarcoma
Melanoma
Necrotizing fasciitis
Neuropathic ulcer

Onychomycosis
Pemphigus
Pressure ulcer
Pyoderma gangrenosum
Squamous cell carcinoma
Vascular ulcer
Nervous System
Cerebrovascular accident
Demyelinating disorders
Parkinson's disease
Peripheral nerve damage
Polyneuropathy
Spinal cord injury
Musculoskeletal System
Osteomyelitis
Involvement Of Multiple Systems
Amputation
Heart/lung transplant
Herpes zoster
Lymphoma
Malnutrition
Obesity
Organ failure
Post-radiation for any cancer
Rheumatoid arthritis
Systemic lupus erythematosus
Venomous bites

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