



Best Practices for an Outpatient Wound Care Program

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Introduction

With numerous disease processes, the cascade of events involved in wound healing can be affected, resulting in chronic, non-healing wounds that subject the patient to significant discomfort and distress while draining the medical system of an enormous amount of resources.¹³



Outpatient wound care centers have grown steadily in the last decade and so have the number of patients being treated for chronic wounds in our country. Wounds are often just a symptom of other barriers to wound healing and require evaluation of the whole person in order to determine what diseases need to be managed in order for the wound to heal.

Many of the patients treated in the outpatient setting for chronic wounds have at least one, if not multiple, comorbid conditions or underlying mechanisms that impair wound healing (Fig. 1). In fact, data from the U.S. Wound Registry suggests that each patient has an average of six comorbid conditions that make them more vulnerable to developing wounds.¹²

Chronic wounds can take years to heal and require significant resources from the healthcare system along the way. A study of Medicare data from 2014 showed that approximately 14.5% of Medicare beneficiaries or 8.2 million patients were diagnosed with a minimum of one type

of wound or wound-related infection. Cost of wound care for these patients was conservatively estimated at \$32 billion, and Medicare reimbursement per wound averaged from \$3,415 to \$11,781.²²

Figure 1

UNDERLYING MECHANISMS THAT CONTRIBUTE TO WOUND CHRONICITY¹³

- Blood supply (peripheral vascular disease)
- Immune function (acquired immunodeficiency)
- Metabolic diseases (diabetes)
- Previous local tissue injury (radiation therapy)
- Malnutrition
- Infection
- Medications

Medicare spending for chronic wound care represents a large portion of the budget, and data shows a shift of costs from hospital inpatient to outpatient settings. Medicare data from the study referenced above showed that Medicare expenditures for hospital outpatients ranged from \$9.9 to \$35.8 billion, almost double that of hospital inpatients.²²

The total cost of chronic wound care in the United States is difficult to accurately determine. However, we do know that the high-risk patient population seeking treatment in the outpatient setting continues to grow, as do the incidences of chronic wounds. To meet this demand, along with the financial burden imposed by chronic wound care, it is important to identify and utilize best practices in your wound care program to

ensure that both quality patient care and center profitability are achieved.

Figure 2

FACTORS IMPACTING HEALING OUTCOMES

- Social determinants of health
- Lack of access to care and durable medical equipment
- Patient adherence to the treatment plan
- Resource availability/allocation
- Reimbursement policies and guidelines
- High cost of wound care dressings and treatments

Multidisciplinary Team Approach

The multidisciplinary approach to wound care is the most important element to the success of a wound care center because no single health care provider is adequately equipped with the knowledge, skill, and experience to provide comprehensive care for complex wounds.¹⁸

We talk about the wound care continuum, but what is it really? Who does it encompass? Depending on whether or not the wound is acute or chronic, or treated in the inpatient or outpatient setting, it will pass through the hands of various providers. Chronic wound care patients must overcome a variety of challenges as they

continue along this continuum of care, and a multidisciplinary team approach will improve transitions of care, care coordination, and clinical outcomes.

A multidisciplinary team includes a variety of healthcare professionals who work together to

TEAM BENEFITS

- Improves health outcomes
- Reduces medical errors
- Increases patient satisfaction
- Increases patient volume

WOUND CARE BENEFITS

- Increases wound healing
- Reduces wound-associated pain
- Increases care coordination
- Decreases wound related complications and amputations

Figure 3

provide comprehensive patient care. The ideal wound care team may be comprised of physicians, nurse practitioners, physician assistants, nurses, allied health professionals, social workers, nutritionists, as well as a diversity of specialists to include urologists, endocrinologists, and vascular surgeons (Fig 5). Even though wound care is not yet recognized as a medical specialty, the coordination of various clinical specialties is needed to best manage chronic wounds. Effective multidisciplinary communication is a vital component of a successful multidisciplinary team as each member plays a role in the wound management and healing process.

Multidisciplinary wound care not only improves outcomes for patients currently being treated, but it also provides a mechanism for clinical investigation of non-healing wounds¹⁴ for future patients with similar presentations. It enables clinicians to address the challenges of chronic wound care, inform wound care decision making, and implement best practices.

The healthcare delivery system is changing and “moving toward a more team-based model in all settings.”¹⁷ Multidisciplinary wound clinics have emerged across the country that staff a variety of clinicians to best meet the needs of each wound and patient. Advancements in research, technology, education, and certification for healthcare providers continue to play a major role in reimbursement, and multidisciplinary care teams will become the gold standard in healing wounds and ensuring quality outcomes.



Wound Expertise

A formal wound care specialty would promote consensus on standard wound care, provide a more unified approach to wound research, and perhaps improve and expand cross-discipline educational approaches.⁸

Logically, pairing patients with chronic or complex wounds with a wound expert – a provider with advanced training in wound care and skin management – will result in improved patient outcomes. But, wound experts in our current healthcare industry are limited if not rare. For example, only 8,000 RNs in the United States are certified Wound, Ostomy and Continence Nurses which equates to less than 0.2% of all nurses or 900 patients for every wound nurse.²³

The American College of Wound Healing and Tissue Repair was founded in 2010 to advance “the field of wound care through research,

Figure 4

WOUND CARE EXPERTISE CAN HELP³⁰

- Improve healing rates and clinical outcomes
- Reduce ER visits and hospital admissions
- Reduce wound infections, avoidable amputations, and death
- Reduce costs through appropriate treatment
- Improve patient experience, satisfaction, and safety

education, and advocacy". One major goal of the organization is to, "establish wound care as a board-certified medical specialty by creating fellowship programs, examinations, and certification processes, as accepted by the American Board of Medical Specialties (ABMS)".¹ The ABMS continues to work to "formalize a physician wound care curriculum."⁶

Clinicians with specialized wound management training have a "level of advanced expertise in evidence-based practice aspects relative to dressings, treatments, and biological therapies."¹⁹ This expertise will help improve clinical and patient outcomes while reducing wound related complications and overall spending (Fig 4).

Furthermore, advanced training can play a role in mitigating potential liability due to professional disciplinary action. When a complaint is investigated by a regulatory agency, the clinician's educational background and whether or not s/he is certified in wound care will be taken into consideration. Certification supports the "clinical ability and continuing competence"³ of clinicians and is recommended for anyone who works with wounds on a day-to-day basis.

A number of organizations provide certifications for clinicians who are interested in advanced education and training, including the American Board of Wound Management, the National Alliance of Wound Care and Ostomy, the Organization of Wound Care Nurses, the Wound Care Education Institute, and the Wound Ostomy and Continence Nurses Society.

Wound care fellowships currently exist for some podiatrists, undersea and hyperbaric medicine, and a few in surgical specialties. Different care settings provide an opportunity to learn about differences in the patient population served, wound therapies, resource availability, and staffing that contribute to effective wound care. A high value should be placed on education and advanced training in an effort to improve the wound care administered by all providers across the continuum.

MULTIDISCIPLINARY TEAM MEMBERS' CONTRIBUTIONS

- **Plastic surgeon:** Soft tissue reconstruction and coverage
- **Podiatric surgeon:** Wound care and surgical biomechanical management
- **Orthopedic surgeon:** Lower extremity skeletal reconstruction
- **Vascular surgeon:** Vascular assessment, open and endovascular intervention
- **Infectious disease:** Medical infection management
- **Endocrinologist:** Aggressive glucose management
- **Hospitalist:** Acute inpatient management
- **Rheumatologist:** Vasculitic, autoimmune processes
- **Hematologist:** Coagulopathy components
- **Psychiatrist:** Behavior modification, psychological assessment
- **Hyperbarist:** HBO therapy
- **Interventionalist (radiologist, cardiologist):** Assessment and endovascular intervention
- **Nutritionist:** Nutrition counseling, supplementation
- **Physical therapist:** Rehabilitation, mobility training
- **Orthotist/prosthetist:** Orthotics, prosthetics, bracing
- **Wound nurse:** Wound care and patient education
- **Medial assistant:** Casting and dressing application
- **NPs/PAs:** Pre- and postoperative care, wound care, discharge planning, and patient education
- **Anesthesiologist:** Anesthesia in high-risk patients
- **Surgical tech:** Knowledge of equipment/supplies

Figure 5

Evidence-Based Care Guidelines

Protocolized wound treatments and guidelines have been published in an attempt to standardize and improve management of chronic wounds and reduce the morbidity and mortality for this high-risk population.¹⁴

Success of an outpatient wound care program is also dependent on following evidence-based guidelines and protocols to improve the management of chronic wounds. In 2003, the Wound Healing Foundation (WHF) recognized the need to develop “standards based on evidence” for wound healing in response to the increasing prevalence of chronic wounds in the elderly population requiring treatment, as well as the cost associated with treating these wounds.²⁸ They put out a request for proposal to, “formulate and publish ‘Minimal Standards for the Diagnosis and Treatment of Chronic Wounds: General and Specific,’”²⁸ and after review, the proposal submitted by the Wound Healing Society (WHS) was accepted. The WHS treatment

guidelines for pressure, arterial, venous, and diabetic ulcers were first published in 2006, and they were most recently updated in 2015.

There are a myriad of options for dressings and treatments that may be used to treat a wound, and what might work for one wound and one patient may not for another. How does a clinician determine which dressing is most appropriate for the wound type being treated or which treatment option may result in the best outcome? Developing and adhering to evidence-based wound care guidelines will help reduce the wide variation in wound care practice that results in a wide variation of clinical outcomes.

Patient-Centered Staffing

Patient-centered staffing ensures the patient is paired with the nurse best suited to meet his or her treatment needs...and it's undeniably linked to improved patient safety, patient and workforce satisfaction, and operational outcomes in healthcare organizations.²⁵

Patient-centered staffing, or resource matching, accounts for the needs of the workforce and patients and aligns staff with individual patient needs. Technology and analytics must be part of this staffing strategy because it uses data to match clinical resources to patient demand.¹⁶ Using data strategically will allow clinicians to better care for the patient population being treated and empower better outcomes (Fig 6). Standardized policies and procedures will also help optimize patient-centered staffing.

A shift in staffing approaches must be made to keep up with the shift from volume to value of

Figure 6

AREAS STAFFING MAY IMPACT¹⁷

- Clinical outcomes
- Quality outcomes
- Patient safety
- Patient satisfaction
- Staff engagement
- Nurse recruitment/retention
- Financial outcomes
- Compliance outcomes



care provided in the wound clinic. Optimal staffing should include, “various healthcare providers of multiple specialties who possess a baseline knowledge of expertise in wound care” to give outpatient wound clinics the, “best chance of providing the highest quality care to drive optimal outcomes”.¹⁶ Wound care delivery can be improved by strategically working to meet the needs of patients and staff.

Patient-Centered Care

Patients feel that they are partners in their health care when physicians respect their opinions regarding the progress of their wounds, take time to understand their individual lifestyle goals and design treatment strategies that will help them achieve these goals, ranging from being able to walk to riding a motorcycle to sitting for 6–8 hours a day in law school.¹

Wounds have implications beyond healing and can affect many aspects of a patient’s quality of life. The National Academy of Medicine defines patient-centered care as, “providing care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions.”² Patients should be thought of as equal partners in their wound healing journey and shared care goals should be established.

Appropriate therapies should be identified according to evidence-based guidelines for optimal wound healing and treatment considerations for patients. These include pain, discomfort, inconvenience, expense, available resources, and burden to their caregivers.¹ Providers must take into account both the medical and non-medical aspects of care options, as well as identify challenges or barriers that may prohibit or limit the patient’s progress.

Prescribing state-of-the-art treatments will not result in improved clinical outcomes if treatment decisions do not take into account the patient’s living situation, health status, and personal preferences.² Providers must consider the variables

that will determine whether or not a patient is able to adhere to the treatment plan so that resources and monies are utilized most appropriately.

Figure 7

GOALS OF PCOR²

- Assess the risks and benefits of treatment options
- Address barriers to implementation and dissemination
- Investigate ways to optimize outcomes
- Address patient and caregiver burden

Effective communication and education play integral roles in identifying what treatment will best meet the needs of the wound and patient, assessing the patient’s understanding of the care plan, and preventing recurrence. The success of patient-centered care is also reliant on multidisciplinary care coordination across all providers and care settings.

Patient-centered outcomes research (PCOR) has shown that patient-centered care, “improves the health status of patients and increases the efficiency of care by reducing diagnostic tests and referrals.”² PCOR looks at a variety of patients across different care settings with a number of objectives (Fig 7).

PCOR is also of interest to payers who want, “to ensure that healthcare dollars are being spent in ways that provide the largest benefit for patients.”² We’ve seen a shift in reimbursement from volume to quality, and patient-centered care will be integral in optimizing revenue by providing care that accounts for individual patient needs and associated risks.

Conclusion

Stakeholders in the United States, such as patients, families, advocates, clinicians, researchers, and government policymakers, need to work together to overcome the current barriers that keep people with chronic wounds from receiving effective, high-quality, patient-centered care. Such care prioritizes both the needs and desires of the millions of Americans and their caregivers who annually seek support and treatment for these debilitating wounds and chronic disease complications.²

Chronic wounds utilize a variety of healthcare resources and greatly impact the patients living with them. The incidence of wounds and patients requiring complex care will continue to climb, as will the financial burden required to treat and heal their wounds. Three significant drivers of cost in wound care and recommended wound management strategies are outlined in Figure 8.

Focusing on these drivers of cost and identifying ways to improve the efficiency of wound care will result in better outcomes at lower costs. Early intervention and appropriate dressing and treatment choices can help reduce the amount of time it takes to heal wounds and the resources

needed to heal them. Along with reducing healing time, it is vital that every effort is made to prevent wound complications, especially bioburden and infection which significantly contribute to the cost of wound management.

As the demand for wound care continues to grow, so does the demand on the healthcare professionals required to manage the patients seeking treatment. Healthcare professionals’ time is one of the most valuable yet expensive resources in the healthcare system, and it is imperative that efficient wound management strategies be employed to optimize resources and the overall cost of care provided.

• COST DRIVERS

- Time it takes a wound to heal
- Frequency of visits by healthcare professionals
- Incidence of complications

• WOUND MANAGEMENT STRATEGIES

- Reduce healing time
- Optimize dressing change frequency
- Prevent complications such as wound infection

Figure 8

Patient-centered care is an integral component in achieving resource and program optimization. By balancing individual patient needs as far as underlying problems, care issues, values and preferences with evidence-based guidelines, wound care practitioners will inherently make treatment decisions and devise care plans that are in the best interests of their patients.

Best practices identified in this article will directly impact the drivers of cost identified above and should be part of your program's strategic plan. These recommendations will enhance care coordination across the continuum, improve clinical outcomes, increase program profitability, and meet the needs of the growing patient population requiring complex wound care. Most importantly, your outpatient wound care pro-

Figure 9

BEST PRACTICES RECOMMENDATIONS²⁰

- Implement a multidisciplinary team approach
- Recruit providers with advanced training in wound care and skin management
- Follow evidence-based best practices and standard protocols
- Align staff and individualized patient needs
- Promote patient-centered care

gram will be positioned, "to effectively advocate for outcomes that match the rights and wellness needs of the individual patient."²⁰

About Wound Care Advantage

Founded in 2002, Wound Care Advantage (WCA) has been a pioneer of a more sustainable approach to operating wound care programs across the United States. As industry-leading consultants, WCA enables hospitals to operate clinically and financially successful wound

care programs to the long-term advantage of their communities. Wound Care Advantage is a privately held company headquartered in Sierra Madre, California. For additional information, visit www.thewca.com

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