

The Role of a Certified Orthotist in Wound Care

By Linda Laakso, MSc CO(c) FCBC

The wound care team is an interdisciplinary team of health professionals who each play a vital role in wound management. A specific and valued member of this team is the Certified Orthotist (CO[c]), who is uniquely trained and highly skilled in evaluating and designing solutions for patients requiring an orthosis due to muscle/bone impairment, disease and/or deformity. The primary goal of the CO(c) is to restore mobility and prevent or limit disability. CO(c)'s provide comprehensive care for individuals in need of externally applied physical treatments, which can include:

- footwear
- foot orthotics
- Charcot Restraint Orthotic Walkers (CROWs)
- ankle foot orthoses (AFOs)
- spinal orthoses

- wrist hand orthoses
- custom-made helmets

The term "orthotic" can be used quite liberally and does not often accurately reflect a CO(c)'s scope of practice. Often people think of an orthosis or orthotic device as just a foot orthosis or insole. However, an orthosis is defined as an "externally applied physical device that is used to support, align, correct and/or protect a body part". An orthosis can be applied to any body part.

In the context of wound care, an orthosis has many applications: supporting, protecting (offloading), correcting, or preventing deformity or pathology. All are important when addressing a wound or an at-risk area of the body. An orthotic treatment plan includes a comprehensive history, an assessment,

the orthosis, re-evaluation as required, necessary adjustments and long-term follow up.

Guidance from Wounds Canada,¹ the International Working Group of the Diabetic Foot² and various other clinical practice guidelines recommend protecting the at-risk foot and offloading areas of pressure and wounds. The role of the CO(c) in the wound team is to do just that, applying evidence, experience and individual patient needs to protect feet and offload pressure.

The CO(c) assesses each individual's unique needs and provides a treatment plan that is most appropriate based on factors such as the physical, biomechanical, cognitive, social, and financial status of the patient. Treatment options for individuals with wounds, or at risk for wounds, include the



standard and well recognized Removable Cast Walker (RCW), Irremovable Cast Walker (ICW) and Total Contact Cast (TCC). However, they are not limited to those. The CO(c) is not restricted to the provision of prefabricated designs but can create, build, and modify custom treatments and interventions, that address the individual's needs for any area of the body that has a wound or is prone to skin breakdown. While most prophylactic treatments and offloading concerns the lower extremity, other areas of the body such as the elbows, the greater trochanter and surgical sites are also prone to wounds and may require protection.

Acute Offloading

Total Contact Casts (see Figure 1), wound shoes and cast walkers may be used to start

offloading in the acute phase of treatment. These off-the-shelf options are available quickly and relatively inexpensively. While they may be effective for many people, they are limited by size or shape and, as such, they do not fit or address the needs of every patient. For complicated wounds that do not heal in an ideal time frame, it is necessary to re-evaluate how much offloading is being achieved. Modifications and customizations to readily available devices allow the CO(c) to optimize patient interfaces to provide enhanced offloading, while minimizing further complications. Through adjustments, pressure can be redistributed away from areas of concern, such as a wound, to tissues that are more pressure tolerant. A *customized* removable cast walker renders it more closely



Figure 1: Working on a Total Contact Cast (TCC). Image courtesy of www.customorthotic.ca.

to the outcomes of the total contact cast, yet with the ability to remove and adjust the orthosis to provide wound care and dressing changes.

Custom-Made and Long-Term Solutions

When deformities are not able to be accommodated by an off-the-shelf item, CO(c)'s excel at creating custom devices to provide solutions for wound management. Areas of the body with irregular contours are sometimes prone to wounds and need custom protection. Boney areas such as the elbow or sensitive areas such as a fistula sometimes develop wounds and are not well suited to commercially available offloading strategies. Such wounds require a unique custom solution that a Certified Orthotist can design, provide and adjust as the wound closes.

Custom-made ankle foot orthoses, such as a Charcot Restraint Orthotic Walker (CROW), provide the custom

offloading benefits of the TCC with the access to wound management of an RCW or ICW (see Figure 2). They function much like a total contact cast but with the ability to be removed in order tend to the wound. Transitioning a patient from an acute device to a long-term maintenance device involves identifying specific medical needs of the patient, as well as lifestyle issues, including employment, support and living situation and requires the design of a treatment plan that addresses these needs.

Ongoing Care

CO(c)'s provide ongoing patient care through follow-up appointments to assess the fit and function of their devices. Collaboratively, other members of the wound team may suggest adjustments to devices over time as the patient's situation changes. It is a coordinated effort that requires effective communication by all members of the wound team in

order to maintain wound closure and minimize adverse events. Ongoing interactions with the patients also include patient education, reinforcing the need to continue to see the members of their wound team and to continue to use their offloading devices. The CO(c), as an integral part of the interdisciplin-

ary team, assesses each individual to determine the most appropriate treatment plan for offloading based on evidence, experience and, most importantly, the individual needs of the person. The treatment plan extends to more than just a device and incorporates a long-term plan for ulcer management, closure and protection to ensure long-term success.

Funding

The funding for the services that a Certified Orthotist provides varies greatly across Canada. Some provinces/territories have funding models that provide full coverage of the services, others have partial coverage while some still do not have any. Navigating the funding is not clear and sometimes not consistent within each jurisdiction. Non-Insured Health Benefits for First Nations, Inuit and Aboriginal Health (NIHB), Department of Veterans Affairs and private insurance companies recognize Certified Orthotists as authorizers or providers for care and provide funding. A Certified Orthotist in each respective province/territory would be able to provide specific information on funding.

Credentiaing Requirements/Education

To become credentialed as a CO(c) in Canada, a candidate must have an undergraduate degree in engineering, kinesiology, or a related program and then complete a two-year certificate program at an Orthotics

Figure 2: Clinician modifying a cast for a custom Charcot Restraint Orthotic Walker (CROW). Image courtesy of www.customorthotic.ca.



Prosthetics Canada (OPC) accredited orthotic and prosthetic school. After completion of the formal education program, candidates must complete a 3,450-hour residency and successfully complete the OPC certification examinations.

The pathway to become a CO(c) or Certified Prosthetist in Canada is accredited by the International Society of Prosthetics and Orthotics (ISPO), the standard of reference for the World Health Organization (WHO) for prosthetic and orthotic occupations.

The profession is regulated by OPC and recognized by provincial health ministries (Alberta and Ontario for example). Certification of the profession in Canada is recognized globally and is one of only six entities globally that employ nine core practitioner standards within the orthotics and prosthetics profession. These include:

- education
- entry level competencies
- scope of practice
- code of ethics
- school accreditation
- continuing professional education
- language/communication skills
- recency of practice
- return to practice standards

To find a CO(c) near you, refer to the Find a Professional Directory the Orthotics Prosthetics Canada (OPC) website at www.OPCanada.ca and select CO(c) under the 'Designation' menu. 🇨🇦

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