Canadian Spinal Cord Injury Pressure Ulcer Agenda

This document describes the work that the Rick Hansen Institute (RHI) and the Ontario Neurotrauma Foundation (ONF) will support to advance spinal cord injury (SCI) research and care in pressure ulcers. The Canadian SCI Pressure Ulcer Agenda was developed through stakeholder engagement and consultation with a designated committee.

**THE PROBLEM**

People with SCI are susceptible to a host of secondary complications such as pressure ulcers. It is estimated that 95% of adults with SCI will experience at least one pressure ulcer in their lifetime. Pressure ulcers (also referred to as pressure injuries or pressure sores) represent the most costly preventable secondary complication for people sustaining spinal cord injuries, and the health care systems that serve them. In Canada, the average health care cost of hospital-acquired pressure ulcers in acute SCI admissions is estimated to be $20,000, and the average cost of a community-acquired pressure ulcer in people with SCI is estimated to approach $5,000 per month (or $33,579 over a 7 month period). Reported averages are conservative and the cost attributable to severe pressure ulcers is expected to be significantly higher. In addition to the reported financial costs, the consequences of pressure ulcers may include limitations on activities of daily living, reductions in quality of life, and in some cases mortality.

It is well known that translational research (moving novel ideas, innovations, discoveries, and new knowledge into clinical research and clinical practice, referred to as ‘Bench to Bedside and Bedside to Nationwide’) is complex and requires an integrated approach, particularly at the transitions or “valleys of death” along the research continuum (see Figure 1).

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**Figure 1: Translation of research into practice**
PRECIOUS CANADIAN SCI PRESSURE ULCER INITIATIVES IN RESEARCH AND CARE

In 2009, the SCI Solutions Network (predecessor of RHI) issued the Canadian Pressure Ulcer Initiative for people with SCI. The Initiative was proposed as “a program of research and knowledge mobilization to identify, enhance and translate best practices in the prevention and clinical management of pressure ulcers in people with SCI”.

Examples of important achievements from this Initiative include:

• Development and dissemination of:
  – Canadian Best Practice Guidelines for the Prevention and Management of Pressure Ulcers in People with SCI.

• Feasibility assessment of a pressure ulcer prevention and management tele-health clinic.

• Creation of partnerships and SCI-specific expertise in pressure ulcer research and care.

In addition, RHI and ONF have supported numerous initiatives in the area of pressure ulcers, covering evidence reviews (Spinal Cord Injury Research Evidence project), data collection and management (Rick Hansen SCI Registry), best practice implementation (Knowledge Mobilization Network and the Accreditation Canada SCI Standards) and development and commercialization of innovative health technologies (open competitions with a focus on pressure ulcers).

RHI and ONF have also developed a Health Economics Agenda for SCI Research in Canada, which outlines the evidence needed to inform decision-making. More information on these and others can be located at: www.rickhanseninstitute.org and www.onf.org.

OBJECTIVE AND AREAS OF FOCUS

As a follow-up to the Canadian Pressure Ulcer Initiative for people with SCI, RHI and ONF are collaborating to sponsor the Canadian SCI Pressure Ulcer Agenda, with the objective to guide SCI research and support advancements in the prevention and therapeutic management of pressure ulcers. This work closely aligns to the goals of the RHI Care Program.

Over the next seven years (2016-2023) with guidance from leaders and experts in the field, RHI and ONF will support four areas of focus:

1. **Data standards** – establishment of common data collection processes and more comprehensive data sets to assess the human and economic burden of pressure ulcers and support analyses that will inform practice and policy.

2. **Health technology* innovation** – emergence and translation (Bench to Bedside and Bedside to Nationwide) of health technologies to prevent and/or improve the therapeutic management of pressure ulcers across the SCI continuum.


4. **Self-management** – development, implementation and evaluation of a comprehensive self-management protocol for pressure ulcers sustained by people with SCI.

*Health technology includes devices (preventative, therapeutic, diagnostic, and other), pharmaceuticals, biologics, procedures and organizational systems developed to solve health problems and improve quality of lives.

RHI CARE PROGRAM

Objectives

To achieve evidence-informed equitable care for Canadians sustaining a SCI in Canada as well as to fill important gaps in knowledge that will advance SCI care and facilitate future SCI cure(s).

Areas of Focus

RHI will focus its support on the following areas, guided by a national panel of SCI experts and identified opportunities in the field of SCI research and care:

- **Secondary complications** with a focus on pressure ulcers, urinary tract infections, respiratory infections and neuropathic pain.

- **Neuro-recovery** with a focus on activities supporting the improvement of neurological outcomes which includes: pre-hospital triage, acute care management and rehabilitation to maximize recovery.

- **Long-term health, wellness and community participation** with a focus on creating the optimal ‘environmental’ conditions to support long-term health, wellness and participation.

- **Accreditation Canada Implementation Strategy** with a focus on accreditation of 50% of RHI SCI Centres under the new SCI Acute Care & Rehabilitation Standards.
THE ROLE OF RHI AND ONF IN SUPPORTING PRESSURE ULCER RESEARCH AND BEST PRACTICE IMPLEMENTATION

To achieve the objective and four areas of focus outlined in the Canadian SCI Pressure Ulcer Agenda, RHI and ONF will support the following activities:

- **Identify and address gaps in knowledge** throughout the SCI continuum from the time of injury through to the community and ensure knowledge continues to move from Bench to Bedside and from Bedside to Nationwide.

- **Implement best practices** outlined in the Canadian Best Practice Guidelines for the Prevention and Management of Pressure Ulcers in People with SCI.8

- **Develop the network** to facilitate collaboration(s) among stakeholders and the integration of work in the area of pressure ulcer research and care.

- **Establish comprehensive data sets and standard collection practices** to facilitate research and increase the breadth and quality of evidence to inform practice and policy decisions.

- **Fund** scientific discovery and development of applicable health technologies through the continuum from Bench to Bedside and from Bedside to Nationwide.

- **Build capacity** and support the next generation to work in the area of pressure ulcer research and care.

- **Assess** the economic and social burden of pressure ulcers throughout the SCI continuum and support the application of standards for economic evaluation of applicable health technologies.

- **Inform practice and policy decisions** by establishing and disseminating robust evidence of the relative costs and benefits of innovative health technologies and best practices to reduce the burden of pressure ulcers.

STRATEGIC PARTNERSHIPS

Both RHI and ONF recognize that stakeholder engagement is essential to meet the objective of the Canadian SCI Pressure Ulcer Agenda. A workshop of experts in pressure ulcer research and care from across Canada was held in 2014 and the Canadian SCI Pressure Ulcer Strategy Working Committee formalized the Agenda. Continued engagement among experts and organizations with an interest in SCI as well as pressure ulcer prevention and therapeutic management is critical.

Key stakeholders include, but are not limited to:

- Consumers (people with SCI, their families, and supporters) and consumer advocacy organizations.

- Health care professionals in pre-hospital, acute, rehabilitation and community care.

- Health care administrators, directors, payers and insurers, and other decision-makers at the organizational, regional, provincial, and national levels.

- Wound care associations.

- Experts and leaders in innovative solutions (e.g., novel therapeutics, medical devices, diagnostics, health information technologies, and health services delivery) with direct or indirect application in pressure ulcer prevention and therapeutic management.

- Funders of health care technology and health service innovation, regulatory agencies, and experts in the commercialization of innovative solutions.

- Discovery science, pre-clinical, clinical and public health researchers in the field of SCI.

- Leaders, researchers, and investigators who represent research and health information institutions, experts in implementation science and knowledge mobilization, health policy analysts, statisticians and economists.

We would like to thank those who participated in the Canadian SCI Pressure Ulcer Workshop, acknowledge the contribution of committee members to the development of the Canadian SCI Pressure Ulcer Agenda, and invite those who will be instrumental in the operationalization of the Agenda to become involved.
IMPACT
Fulfilling the Canadian SCI Pressure Ulcer Agenda will ultimately improve the lives of people living with SCI and help avoid excessive (or unnecessary) health care expenditures. This will be accomplished by: determining how the utilization of technologies can enhance the health of people with SCI; ensuring standardized and equitable care for the prevention and therapeutic management of pressure ulcers; and the development and implementation of a self-management protocol. Progress will be evaluated annually and updates to the Agenda will be made to ensure it remains relevant and responsive to the priorities identified by the field.

REFERENCES


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All committee members were asked to disclose to RHI and ONF any conflicts of interest that may potentially influence their recommendations on the Canadian SCI Pressure Ulcer Agenda.

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The Rick Hansen Institute is a Canadian-based not-for-profit organization with the goal of creating a world without paralysis after spinal cord injury. It works towards this goal by accelerating research and translating clinical findings into practical solutions to develop new treatments, improve health care outcomes, reduce long-term costs and improve the quality of life for those living with spinal cord injury. www.rickhanseninstitute.org

The Ontario Neurotrauma Foundation is an Ontario not-for-profit organization that works to prevent neurotrauma, and to ensure Ontarians with neurotrauma lead full, productive lives. It works towards this goal by moving research to evidence-informed practices that can prevent neurotrauma, and improve the quality of life and health outcomes for those living with neurotrauma. www.onf.org

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