

Appendix 1: CADTH Non-Pharmacological Interventions for Pressure Injuries Survey

1. For which jurisdiction do you work? (Select one option.)
 - Alberta
 - British Columbia
 - Manitoba
 - New Brunswick
 - Newfoundland and Labrador
 - Northwest Territories
 - Nova Scotia
 - Nunavut
 - Ontario
 - Prince Edward Island
 - Quebec
 - Saskatchewan
 - Yukon
 - Federal

2. Are you currently involved in any capacity with non-pharmacological interventions for the prevention of pressure injuries? (If no, go to the end of the survey.)
 - Yes
 - No

3. What is your profession or role? In addition to your occupation or title, please describe your role as it relates to non-pharmacological interventions for the prevention of pressure injuries. (Free text.)

4. Do you work in one or more of these geographical settings? (Select all that apply.)
 - Urban
 - Rural
 - Remote

(Please self-identify based on your local understanding of the criteria for remote. As an example, Health Canada defines various levels of remote, ranging from "remote isolated = no scheduled flights or road access and minimal telephone or radio service" through to "non-isolated remote = road access and less than 90 km away from physician services.")

5. What type of organization do you work for? (Select all that apply.)
 - Publicly funded
 - Private
 - Not-for-profit
 - Other (free text; please specify):

6. Do you work in one or more of these health care settings? (Select all that apply.)

Secondary or tertiary hospital setting:

- Acute care
- Intensive care
- Pediatric care
- Operative care

Long-term care:

- Assisted living
- Continuing care
- Nursing home
- Auxiliary hospital setting
- Primary care
- Home and community care
- Rehabilitation facility
- Other (free text; please specify):

A. Context of Use of Non-Pharmacological Prevention Strategies for Pressure Injuries

7. In your context, for which of the following patient populations are non-pharmacological interventions for pressure injury prevention typically used? (Select all that apply.)

- Geriatric patients
- Spinal cord injury patients
- Pediatric patients
- Surgical or post-operative patients
- Immunocompromised patients
- Patients with limited mobility
- Patients with neurological conditions
- Patients with medical devices or restraints in contact with tissue
- Malnourished patients
- Patients with chronic diseases (e.g., cardiovascular disease, diabetes)
- Other (free text; please specify):

8. What non-pharmacological interventions for the prevention of pressure injuries are **currently** utilized in your jurisdiction?
(Select all that apply.)

Dressings:

- Silver dressings
- Silicone dressings
- Prophylactic dressings
- Gauze dressings
- Dressings with Safetac
- Other dressings

Support Surfaces/Overlays:

- Foam mattress support surfaces
- Reactive support surfaces (air-fluidized)
- Active support surfaces (alternating pressure)
- Australian sheepskin overlay
- Other support surfaces/overlays

Seat cushions:

- Wheelchair cushions
- Gel seat cushions
- Gel-enhanced cushions
- Memory foam cushions
- Pillows
- Other seat cushions

Absorbent pads and wipes:

- Incontinence pads
- High-absorbent diaper pads
- Barrier wipes (pre-moistened)
- Other absorbent pads or wipes

Heel/Foot:

- Heel elevators
- Heel-lift suspension boot
- Egg crate heel lift
- Heel-protector boots
- Repose Boot
- Multidisciplinary wound care team
- Screening and risk assessment tools
- Nutrition interventions
- Body repositioning

- Cushioning or spacing devices to prevent injury from medical devices (e.g., nasogastric tubes)
- Epidermal moisture scanner
- Hyperbaric oxygen therapy
- Electrical stimulation
- Debridement
- Massage therapy
- Other (free text; please specify):

9. What non-pharmacological interventions for the prevention of pressure injuries **are being considered or are of interest but are not currently used** in your practice or jurisdiction?

Dressings:

- Silver dressings
- Silicone dressings
- Prophylactic dressings
- Gauze dressings
- Dressings with Safetac
- Other dressings

Support Surfaces/Overlays:

- Foam mattress support surfaces
- Reactive support surfaces (air-fluidized)
- Active support surfaces (alternating pressure)
- Australian sheepskin overlay
- Other support surfaces/overlays

Seat cushions:

- Wheelchair cushions
- Gel seat cushions
- Gel-enhanced cushions
- Memory foam cushions
- Pillows
- Other seat cushions

Absorbent pads and wipes:

- Incontinence pads
- High-absorbent diaper pads
- Barrier wipes (pre-moistened)
- Other absorbent pads or wipes

Heel/foot:

- Heel elevators
- Heel-lift suspension boot
- Egg crate heel lift
- Heel-protector boots
- Repose Boot

- Multidisciplinary wound care team
- Screening and risk assessment tools
- Nutrition interventions
- Body repositioning
- Cushioning or spacing devices to prevent injury from medical devices (e.g., nasogastric tubes)
- Epidermal moisture scanner
- Hyperbaric oxygen therapy
- Electrical stimulation
- Debridement
- Massage therapy
- Other (free text; please specify):

10. What non-pharmacological interventions for the prevention of pressure injuries **are being considered or have been selected for discontinuation of use** in your practice or jurisdiction?

- None

Please specify the intervention. (Free text.)

Please specify your reason for discontinuation or potential discontinuation: (Select all that apply.)

- Lack of funding for intervention
- Manufacturer discontinuation of intervention or product
- Ineffective intervention
- Appropriate alternatives available
- Other (free text; please specify):

11. Are there any policies, frameworks, or guidelines in use in your jurisdiction to guide the use of non-pharmacological intervention options for the prevention of pressure injuries?

- Yes (Free text; please provide the title and year of the document; option to upload.)
- No
- Do not know

B. Challenges and Knowledge Gaps

12. Of the following **patient-related** factors, which of them influence care decisions regarding the use of non-pharmacological interventions used for the prevention of pressure injuries? (Please select all those that apply and describe how they influence care decisions.)
- Age
How does this factor influence care decisions? (Free text.)
 - Gender
How does this factor influence care decisions? (Free text.)
 - Type of injury
How does this factor influence care decisions? (Free text.)
 - Clinical contraindications
How does this factor influence care decisions? (Free text.)
 - Level of patient mobility
How does this factor influence care decisions? (Free text.)
 - Acute illness
How does this factor influence care decisions? (Free text.)
 - History of pressure injuries
How does this factor influence care decisions? (Free text.)
 - Nutritional deficiencies
How does this factor influence care decisions? (Free text.)
 - Anticipated length of hospital stay
How does this factor influence care decisions? (Free text.)
 - Type of surgery or operation
How does this factor influence care decisions? (Free text.)
 - Other (free text; please identify the factor and describe how it influences care decisions):
13. Which of the following **system-related** factors regarding the use of non-pharmacological interventions for the prevention of pressure injuries do you currently face in your jurisdiction?
- Patient transition across care settings
How does this factor influence care decisions? (Free text.)
 - Implementation feasibility
How does this factor influence care decisions? (Free text.)
 - Funding or reimbursement
How does this factor influence care decisions? (Free text.)
 - Availability of guidelines or evidence
How does this factor influence care decisions? (Free text.)

Level of coordination between multiple providers

How does this factor influence care decisions? (Free text.)

Treatment or intervention accessibility

How does this factor influence care decisions? (Free text.)

Other (free text; please specify challenges or barriers and how they influence care decisions):

14. What are the current policy or clinical practice issues in the area of non-pharmacological pressure injury prevention?
(Free text.)

15. What are the current knowledge gaps or evidence needs in the area of non-pharmacological pressure injury prevention?
(Free text.)

C. Engagement and Feedback

16. Are there any other individuals or stakeholders who we should engage to provide insight on this topic?
(Free text; please specify name, occupation, and contact information.)

Appendix 2: Information on Survey Respondents

Table 2: Jurisdictional, Organizational, and Geographical Representation of Respondents

Province or Territory (Number of Respondents) ^a	Organizations Represented by Survey Respondents ^b	Setting (Number of Respondents) ^c	Type of Organization (Number of Respondents) ^d
Alberta	Alberta Health Services University of Alberta	Urban (1) Rural (0) Rural (1) Remote (0)	Publicly funded (2) Not-for-profit (0) Private (0)
British Columbia (5)	Fraser Health Authority Northern Health Authority Public Health Services Authority-Sunny Hill Thompson Rivers University	Urban (2) Rural (0) Urban and Rural (3) Remote (0)	Publicly funded (5) Not-for-profit (0) Private (0)
Manitoba (19)	Deer Lodge Centre Health Sciences Centre Health Sciences Centre-Child Health Interlake-Eastern Regional Health Authority Northern Health Region Misericordia Health Centre Prairie Mountain Health Selkirk Mental Health Centre Seven Oaks General Hospital Winnipeg Regional Health Authority Winnipeg Regional Health Authority –Palliative Care	Urban (15) Rural (2) Urban and Rural (2) Remote (0)	Publicly funded (19) Not-for-profit (0) Private (0)
New Brunswick (1)	New Brunswick Association of Nursing Homes	Urban (0) Rural (0) Remote (0) Rural, Urban and Remote(1)	Publicly funded (0) Not-for-profit (1) Private (0)
Newfoundland and Labrador (3)	Labrador-Grenfell Regional Health Authority Eastern Health Authority	Urban (1) Rural (2) Remote (0)	Publicly funded (3) Not-for-profit (0) Private (0)
Nova Scotia	Wounds Canada University of Sydney	Urban (1) Rural (0) Remote (0)	Publicly funded (1) Not-for-profit (0) Private (0)
Northwest Territories	No respondents		
Nunavut	No respondents		

Province or Territory (Number of Respondents) ^a	Organizations Represented by Survey Respondents ^b	Setting (Number of Respondents) ^c	Type of Organization (Number of Respondents) ^d
Ontario (1)	St. Michael's Hospital Self-employed/Consultant	Urban (1) Rural (0) Remote (0)	Publicly funded (1) Not-for-profit (0) Private (0)
Prince Edward Island (4)	Health PEI Home Care	Urban (2) Rural (1) Urban and Rural (1) Remote (0)	Publicly funded (3) Not-for-profit Private (0) Not reported (1)
Quebec	No respondents		
Saskatchewan (3)	Saskatchewan Health Region ^e	Urban (1) Urban and Rural (1) Rural (1) Remote (0)	Publicly funded (1) Not-for-profit (0) Private (0) Publicly funded and not-for-profit (1) First Nation Community (1)
Yukon	No respondents		

^a In response to the survey question "For which jurisdiction do you work?"

^b In response to the survey question "What is your profession or role? In addition to your occupation or title, please describe your role as it relates to non-pharmacological interventions for the prevention of pressure injuries."

^c In response to the survey question "Do you work in one or more of these geographical settings?"

^d In response to the survey question "What type of organization do you work for?"

^e Saskatchewan Regional Health Authorities amalgamated into one health entity, Saskatchewan Health Region.

Appendix 3: Representation of Care Settings Among Survey Respondents

Table 3: Represented Care Settings Among Survey Respondents

Type of Care Provided ^a	Total Number of Respondents
Secondary or Tertiary Hospital Setting	
Acute care	15 (39%)
Intensive care	8 (21%)
Pediatric care	6 (15%)
Operative care	2 (5%)
Long-term Care	
Assisted living	5 (13%)
Continuing care	11 (28%)
Nursing home	19 (49%)
Auxiliary hospital setting	2 (5%)
Other	
Primary care	4 (10%)
Home and community care	13 (33%)
Corporate office	1 (3%)
Rehabilitation facility	8 (21%)
Transitional care	1 (3%)
Patient safety	1 (3%)
Wellness programs	1 (3%)
Regional health authority	1 (3%)

^aIn response to the survey question “Do you work in one or more of these health care settings?” Survey respondents were able to choose more than one answer for this question.

Appendix 4: Patients Populations Typically Using Non-Pharmacological Interventions for Pressure Injury Prevention

Table 4: Patient Populations Represented by Survey Respondents

Type of Patient Populations ^a	Total Number of Respondents
Geriatric patients	35 (90%)
Spinal cord injury patients	28 (72%)
Pediatric patients	11 (28%)
Surgical/post-operative patients	20 (51%)
Immunocompromised patients	24 (62%)
Patients with limited mobility	37 (95%)
Patients with neurological conditions	34 (87%)
Patients with medical devices or restraints	28 (72%)
Malnourished patients	32 (82%)
Patients with chronic disease	33 (85%)
Palliative patients	2 (5%)

^a In response to the survey question “In your context, for which of the following patient populations are non-pharmacological interventions for pressure injury prevention typically used?” Survey respondents were able to choose more than one answer for this question.

Appendix 5: Context of Non-Pharmacological Pressure Injury Interventions

Table 5: Non-Pharmacological Pressure Injury Interventions Currently In Use, Under Consideration for Use, and Under Consideration or Selected for Discontinuation by Respondents

Non-Pharmacological Pressure Injury Interventions	Number of Respondents Currently Using the Intervention ^a	Number of Respondents Considering the Intervention ^b	Number of Respondents Discontinuing the Intervention ^c
Dressing			
Silver dressings	13	1	1
Silicone dressings	26	5	0
Prophylactic dressings	19	3	0
Gauze dressings	15	0	0
Dressings with Safetac	21	2	0
Other dressings	15	2	0
Support Surfaces and Overlays			
Foam mattress support surfaces	27	1	0
Reactive support surfaces (air-fluidized)	26	3	0
Active support surfaces	32	4	2
Australian sheepskin overlay	8	3	2
Other support surfaces and overlays	16	3	0
Seat Cushions			
Wheelchair cushions	35	2	1
Gel seat cushions	28	2	0
Gel-enhanced cushion	20	1	0
Memory foam cushion	22	1	0
Pillows	12	2	
Other seat cushions	19	1	1
Absorbent Pads and Wipes			
Incontinence pads	30	2	0
High-absorbent diaper pads	25	1	0
Barrier wipes (pre-moistened)	18	0	2
Other absorbent pads and wipes	8	1	3

Non-Pharmacological Pressure Injury Interventions	Number of Respondents Currently Using the Intervention ^a	Number of Respondents Considering the Intervention ^b	Number of Respondents Discontinuing the Intervention ^c
Heel and Foot			
Heel elevators	20	1	1
Heel-lift suspension boot	17	1	1
Egg-crate heel lift	3	2	0
Heel-protector boots	32	0	0
Repose boot	3	1	0
Other			
Multidisciplinary wound care team	29	7	0
Screening and risk assessment tools	38	2	0
Nutrition interventions	35	2	0
Body repositioning	37	2	0
Cushioning or spacing devices to prevent injury from medical devices	24	2	0
Epidermal moisture scanner	0	2	0
Hyperbaric oxygen therapy	1	4	1
Electrical stimulation	4	10	1
Debridement	27	3	1
Massage therapy	4	3	0
Other	0	1	3

^a In response to the survey question “What non-pharmacological interventions for the prevention of pressure injuries are currently utilized in your jurisdiction?” Survey respondents were able to choose more than one answer for this question.

^b In response to the survey question “What non-pharmacological interventions for the prevention of pressure injuries are being considered or are of interest but are not currently used in your practice or jurisdiction?” Survey respondents were able to choose more than one answer for this question.

^c In response to the survey question “What non-pharmacological interventions for the prevention of pressure injuries are being considered or have been selected for discontinuation of use in your practice or jurisdiction?” Survey respondents were able to choose more than one answer for this question.

Appendix 6: Responses for Discontinuing Non-Pharmacological Pressure Injury Interventions

Table 6: Reasons for Discontinuation of Pressure Injury Intervention From Survey Respondents

Type of Intervention	Number of Responses ^a	Reason for Discontinuation
Silver dressings	1	Ineffective intervention Appropriate alternative available
Soaker pads	3	Ineffective intervention Appropriate alternatives available Risk of shearing injury with use
Barrier wipes	1	Lack of funding Appropriate alternative available
Support surfaces	1	Lack of funding
Active surfaces	1	Lack of funding
Australian sheepskin	2	Lack of funding Inability to properly sanitize/laundry between patients
Pre-moistened wipes	1	Financial impact by program leaders
Negative pressure wound therapy	1	Lack of education
Promogran	1	Lack of education
Medical honey	1	Lack of education
Off-loading boots	1	Lack of funding
Wheelchair cushions	1	Lack of funding
Prevalon boots	1	Ineffective intervention Appropriate alternatives available
Hyperbaric oxygen therapy	1	Lack of funding Lack of evidence-based outcomes
Debridement	1	High infection rates
Electrical stimulation	1	Lack of funding Lack of staff training and management support
Air beds (various types)	1	Lack of funding Lack of education and belief patient do not have to be turned on air beds

^aIn response to the survey question “What non-pharmacological interventions for the prevention of pressure injuries are being considered or have been selected for discontinuation of use in your practice or jurisdiction?” Survey respondents were able to choose more than one answer for this question.

Appendix 7: Policies, Frameworks, and Guidelines for the Use of Non-Pharmacological Pressure Injury Interventions Reported by Survey Respondents

Please note that some of the policies or guidelines provided and mentioned by survey respondents did not have available links or were not able to be publicly identified and referenced. Protocols or assessment guides that are in the public domain (e.g., Braden Scale) were referenced with other available literature when references were not provided.

Regional or Jurisdictional Policies or Guidelines

- [Conservative Sharp Wound Debridement \(CSWD\) in adults & children](#). (*Evidence informed practice tools*). Winnipeg (MB): Winnipeg Regional Health Authority; 2019.
- Regional wound and skin best practice guidelines. Winnipeg (MB): Winnipeg Regional Health Authority; 2018. (Web link not available.)
- [Wound bed preparation](#). (*Evidence informed practice tools*). Winnipeg (MB): Winnipeg Regional Health Authority; 2016.
- [Silver based dressings](#). (*Evidence informed practice tools*). Winnipeg (MB): Winnipeg Regional Health Authority; 2018.
- [Guideline: Prevention of pressure injury in adults & children](#). Vancouver (BC): BC Provincial Interprofessional Skin & Wound Committee; 2017 Nov [revised 2018 Feb].
- Wound prevention and management: Pressure ulcer prevention and treatment. Brandon (MB): Prairie Mountain Health; 2015. (Web link not available.)
- Risk assessment for skin breakdown and/or pressure ulcers using the Braden (Adult) and Braden Q (Pediatric). Eastern Health; 2014. (Web link not available.)
- Pressure ulcers: Prevention and treatment guidelines. Prince George (BC): Northern Health Authority; 2017. (Web link not available.)
- [Pressure ulcer prevention and treatment - clinical practice guideline](#). Winnipeg (MB): Winnipeg Regional Health Authority; 2012.
- Medical device-related pressure injuries in adults and children [draft]. (*Evidence informed practice tools*). Winnipeg (MB): Winnipeg Regional Health Authority; 2019. (Web link not available.)

Workplace-Specific Guidelines or Policies

- Pressure relieving ankle-foot orthosis application and monitoring. Winnipeg (MB): Deer Lodge Centre; 2012. (Web link not available.)
- [Skin and wound community practice board](#). CLWK; 2019.
- Guidelines for implementing Soft AFO (Heel Boot). Winnipeg (MB): Misericordia Health Centre; 2017. (Web link not available.)
- Braden Scale Guidelines and Assessments
- [Procedure/documentation: Braden Risk & skin assessment – adults](#). Vancouver (BC): BC Provincial Interprofessional Skin and Wound Committee; 2017, Braden Scale and Pressure Ulcer Risk Scale (PURS).^{26,27}

Other

- Best Practice Recommendations for the: Prevention and Management of Wounds²⁸
- Skin integrity and medical devices. Winnipeg (MB): Seven Oaks General Hospital; 2017. (Web link not available.)
- McNichol L, Watts C, Mackey D, Beitz JM, Gray M. [Identifying the right surface for the right patient at the right time](#). J Wound Ostomy Continence Nurs. 2015 Jan; 42(1): 19–37.
- Navarro P, Bornstein S. [Hyperbaric oxygen therapy for difficult wound healing in Newfoundland & Labrador](#). St. John's (NL): Newfoundland & Labrador Centre for Applied Health Research, Memorial University; 2012.

- [Risk assessment and prevention of pressure ulcers](#). Toronto (ON): Registered Nurses Association of Ontario; 2012 [supplement 2005; revised 2011; evidence boosters 2017].
- [Best practice recommendations for the prevention and management of pressure injuries](#). (Foundations of best practice for skin and wound management). North York (ON): Wounds Canada; 2018.
- QID Pressure Ulcers to Zero Collaborative. [Final report: Pressure ulcers to zero collaborative: Phase 3 \(November 2016-February 2018\)](#). Dublin (IRL): Health Services Executive; 2018.