Assessment and Management of Pressure Injuries for the Interprofessional Team

Third Edition

RNAO Best Practice Guideline Launch

October 4, 2016
12:00 pm to 1:00pm
Who will be speaking today?

Irmajean Bajnok, RN, PhD
- Director, IABPG, RNAO

Grace Suva, RN, MN
- Program Manager, IABPG, RNAO

Karen Campbell, RN, MSCN, PhD
- Field Leader MCIScWH, & Wound Project Manager Western University, ARGC Lawson Research Institute

R. Gary Sibbald, MD, M.Ed, D.Sci(Hons), FRCPC(Med.Derm)
- Professor of Public Health/Medicine, Director – IIWCC & MSc. Comm. Health, Dalla Lana Faculty of Public Health, Women’s College Hospital, Trillium Health Partners, University of Toronto
Today’s agenda is ...

• Overview of RNAO BPG Program
• Purpose & scope
• Changes to the New Edition BPG
• Guideline development process
• Summary of recommendations:
  ➢ Practice
  ➢ Education
  ➢ System, organization and policy
• Question & answer period
RNAO is the professional association of Registered Nurses in Ontario, Canada

The strong, credible voice leading the nursing profession to influence and promote healthy public policy, and clinical excellence.
What is the purpose and scope?

• Evidence-based recommendations that apply to the decisions and best practices of interprofessional teams working to assess and manage existing pressure injuries (PI) in people 18 years of age and above.
What is a pressure injury?

• Localized damage to the skin and/or underlying soft tissue usually over a bony prominence or related to a medical or other device
• Present as intact skin or an open ulcer and may be painful
• Result of intense and/or prolonged pressure or pressure in combination with shear
• May also be affected by microclimate, nutrition, perfusion, co-morbidities and condition of the soft tissue (NPUAP, 2016, para 3)
NPUAP changes in terminology

• The term ‘pressure injury’ more accurately describes pressure injuries to both intact and ulcerated skin (NPUAP, 2016).

• Arabic numbers are now used in the names of the stages instead of Roman numerals (NPUAP, 2016).

• The term “suspected” has been removed from the Deep Tissue Injury diagnostic label (NPUAP, 2016).

• Revised definitions for Medical Device Related Pressure Injury and Mucosal Membrane Pressure Injury (NPUAP, 2016).
Interprofessional approach

For the purpose of this guideline:

• Health care professional team
• Work in collaboration with the person with the pressure injury and the person’s circle of care
Person-centred care approach

• Demonstrates certain practices that put the person and their family members at the centre of health care and services (RNAO, 2015)

• Respects and empowers individuals to be genuine partners with health-care providers for their health

• (RNAO, 2015)
NPUAP Pressure Injury Staging System

Please refer to Appendix E of the Assessment and Management of Pressure Injuries for the Interprofessional Team clinical best practice guideline
Guiding framework for the BPG

Please refer to *Figure 1: Wound-Bed Preparation Paradigm, 2015 (p. 27)* of the *Assessment and Management of Pressure Injuries* clinical best practice guideline.
# Healability of Pressure Injuries

<table>
<thead>
<tr>
<th>Category</th>
<th>Adequate blood supply + Correct the cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healable</td>
<td>The cause can be corrected but lack of patient adherence or health care system limitations prevent healing</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Can not correct the cause or unable to improve other factors that prevent healing</td>
</tr>
</tbody>
</table>

(Sibbald, Elliott, Ayello, & Somayaji, 2015)
Guideline development process

- Literature Search
- Screening
- Quality Appraisal
- Data Extraction
- Report Preparation
- Stakeholder Review
- Publication

Methodology

Systematic Review

Expert Panel Involvement
Final recommendations in BPG

Practice Recommendations (25)
- Assessment (8)
- Planning (2)
- Implementation (9)
- Evaluation (2)

Education Recommendations (2)

System, Organization & Policy

Recommendations (2)
Practice recommendations

On initial examination and whenever there is significant change:

**Recommendation 1.1:**
- Conduct a health history, a psychosocial history, and a physical exam.

**Recommendation 1.2:**
- Assess the risk for developing additional pressure injuries using a valid and reliable assessment tool.

**Recommendation 1.3:**
- Assess the person’s pressure injury using the same valid and reliable wound assessment tool.
Practice recommendations

On first examination and whenever there is a significant change:

Recommendation 1.4: (NEW)
• Assess for signs and symptoms of infection.

Recommendation 1.5: (NEW)
• Screen all persons for risk of malnutrition.
• Determine the nutritional status of all persons at risk for malnutrition.
• Perform a comprehensive nutrition assessment.

Recommendation 1.6:
• Assess for pressure injury pain.
Practice recommendations

Recommendation 1.8:

• Conduct a mobility and support surface assessment on initial examination and whenever there is a significant change in the person’s medical condition, weight, equipment, mobility, and/or pressure injury healing.
Practice recommendations

Recommendation 1.7:
• Perform a vascular assessment in the lower extremities of all person’s with pressure injuries on initial examination.
## Vascular supply and healability

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palpable pulse</td>
<td>&gt;80 mm Hg</td>
</tr>
<tr>
<td>Ankle-brachial pressure index (ABPI)</td>
<td>&gt;0.5 and &lt;1.3</td>
</tr>
<tr>
<td>Transcutaneous O(_2) tension</td>
<td>&gt;30 mm Hg</td>
</tr>
<tr>
<td>Toe pressure</td>
<td>&gt;55 mm Hg</td>
</tr>
<tr>
<td>Audible hand held Doppler</td>
<td>Biphasic, Triphasic = ABPI &gt; 0.9</td>
</tr>
</tbody>
</table>

(Sibbald, Elliott, Ayello, & Somayaji, 2015)
Audible hand held doppler (AHHD)

- Accuracy audible hand held Doppler ultrasound (AHHD) to identify PVD
- 200 patients, 379 legs
- All had ABPI, toe pressures at certified vascular lab (Gold Standard)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Meaning</th>
<th>Result PT/ DP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specificity</td>
<td>No PVD</td>
<td>98.6%/ 97.8%</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>PVD identified</td>
<td>37.5% / 30.19%</td>
</tr>
<tr>
<td>+ Pre.Value (PPV)</td>
<td>Abn. AHHD + PVD</td>
<td>81.2%/ 72.75%</td>
</tr>
<tr>
<td>- Pre. Value (NPV)</td>
<td>Normal AHHD/ no PVD</td>
<td>90.91%/ 88.10%</td>
</tr>
</tbody>
</table>

**Conclusion:**
AHHD reliable, simple, rapid, inexpensive bedside exclusion test PVD in diabetic/non-diabetic subjects

Audible hand held Doppler ultrasound determines reliable & inexpensive exclusion of significant PVD
Practice recommendations

**Recommendation 2.1:**
- Obtain the referral or consultations required to plan and coordinate a pressure injury plan of care.

**Recommendation 2.2:**
- Develop a pressure injury plan of care that incorporates goals mutually agreed upon by the person, the person’s circle of care, and the interprofessional team.
Practice recommendations

**Recommendation 3.1:**
- Reposition the person at regular intervals (i.e. every 2-4 hours).
  While sitting, weight-shift the person every 15 minutes.

**Recommendation 3.2:**
- Position on a pressure redistribution support surface at all times.

**Recommendation 3.3:**
- Implement an individualized nutritional plan of care that addresses nutritional requirements and provides adequate protein, calories, fluid, and appropriate vitamin and mineral supplementation to promote pressure injury healing.
Recommended dietary intake

• Dietitian in collaboration with the person implement a nutritional plan of care:
  – Calories: 30 to 35 cal/kg body weight
  – Protein: 1.25 to 1.5 g protein/kg body weight
  – Arginine: 4.5 g/day
  – Vitamin C: 500 mg/day

• Modify recommendations based on dietitian assessment/comprehensive assessment and patient characteristics
Practice recommendations

Recommendation 3.4:
• Provide local pressure injury care consisting of cleansing, moisture balance, infection control and debridement.

Recommendation 3.5:
• Provide electrical stimulation (when available) as an adjunct to best practice wound care in order to speed healing and promote closure in stalled but healable stage 2, 3, and 4 pressure injuries.
# Wound Packing Materials

<table>
<thead>
<tr>
<th>Material</th>
<th>Properties</th>
</tr>
</thead>
</table>
| Dry Saline Gauze                              | *Absorbs exudate  
*Not anti-bacterial                                                  |
| Moist Saline Gauze                            | *Donates moisture - hydrates wound  
*Not antibacterial                                                  |
| Povidone Iodine Soaked Gauze                  | *Iodine delivered to the wound surface  
*Penetrates biofilm + decreases surface bacteria  
*some potential tissue toxicity |
| PHMB Gauze (PolyHexaMethyleneBiguanide Gauze) | *Absorbs exudate  
*Provides antibacterial activity above the wound  
*Non-release, no tissue toxicity                                      |

(Sibbald, Elliott, Ayello, & Somayaji, 2015)
Practice recommendations

Recommendation 3.6:
• Implement, as an alternative, the following in order to speed closure of stalled but healable pressure injuries: EMT, US, UV.
• Do not use laser therapy (STOP PRACTICE)

Recommendation 3.7:
• Provide NPWT to people with stage 3 and 4 PI in exceptional circumstances (e.g. QoL).

Recommendation 3.8:
• Collaborate with the person and his/her circle of care to implement a pressure injury self-management plan.
Practice recommendations

**Recommendation 4.1:** (NEW)

- Use the initial risk assessment tool to reassess the person's risk for developing additional pressure injuries on a regular basis and whenever a change in the person's health status occurs.

**Recommendation 4.2:**

- Use the initial wound assessment tool to monitor the person’s pressure injuries for progress toward person-centred goals on a regular basis and at dressing changes.
Education recommendations

Recommendation 5.1:
• Develop and implement comprehensive and sustainable interprofessional pressure injury education programs for clinicians and students entering health-care professions.

Recommendation 5.2:
• Assess health-care professionals’ knowledge, attitudes, and skills related to the assessment and management of existing pressure injuries before and following educational interventions using an appropriate, reliable, and validated assessment tool.
Recommendation 6.1:
• Organizations must lead and provide the resources to integrate pressure injury management best practices into standard and interprofessional clinical practice, with continuous evaluation of outcomes.

Recommendation 6.2:
• Lobby and advocate for investment in pressure injury management as a strategic quality and safety priority in jurisdictions in order to improve health outcomes for people with pressure injuries.
Any questions?
More ‘enablers’ for practice

Guideline appendices have the following:

• Illustrations (e.g. PI staging, bacterial imbalance)
• Templates (e.g. Medical history)
• Assessment tools (e.g. PI risk assessment, PI assessment, psychosocial, infection e.g. STONEES/NERDs, pain, nutrition)
• Charts (e.g. dressing categories, cleansing solutions)
• Decision aids (e.g. debridement, support surface selection)
• Resources for additional information (e.g. education, PI in special populations)
For more information about this guideline and related resources, please contact:

Erica D’Souza
RNAO Project Coordinator
ed’souza@rnao.ca
To access the guideline please go to …

Available for free download at:
www.rn ao.ca/bpg/guidelines

Hard copy available for order by contacting RNAO:
www.rn ao.ca/contact
Check out these additional RNAO resources

- Recommendation comparison chart
- Health education fact sheet
- LTC Toolkit (wound care resources)
References


