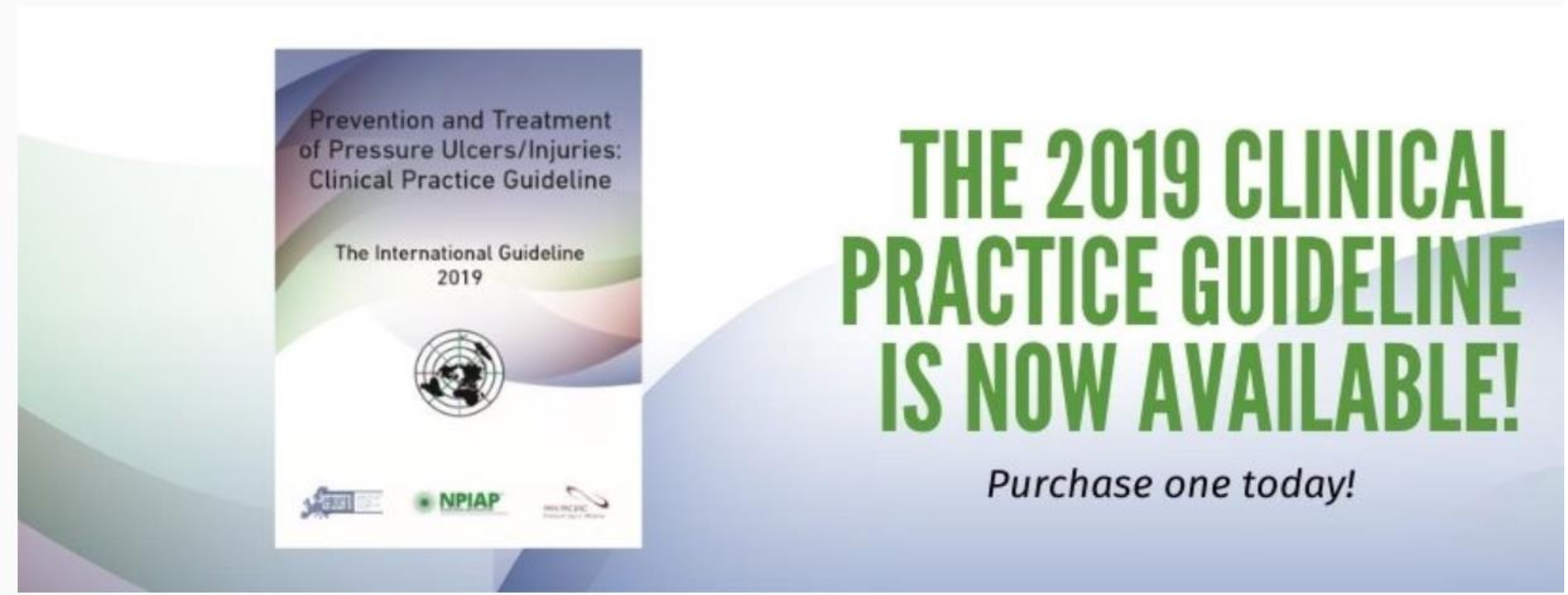
Update Pressure Injury Prevention Guideline



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พยาบาลวิชาชีพชำนาญการ,ET

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บุญชื่น อิ่มมาก

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ชมรม พยาบาล แผล ออ ส โต มี และ ควบคุม การ ขับถ่าย

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ข้อเสนอแนะและคำแถลงข้อปฏิบัติที่ดี

ข้อเสนอแนะและคำแถลงข้อปฏิบัติที่ดีต่อไปนี้ ตัดตอนมาจากแนวปฏิบัติทางคลินิกฉบับเต็ม เพื่อความสะดวกสำหรับนำไปปฏิบัติในคลินิก ข้อเสนอแนะและคำแถลงข้อปฏิบัติที่ดีฉบับนี้ มิได้มีวัตถุประสงค์ในการที่จะนำไปใช้โดยไม่ทบทวนข้อสรุปจากหลักฐานเชิงประจักษ์ การพิจารณาการนำไปปฏิบัติ และการอภิปรายที่รวบรวมอยู่ในแนวปฏิบัติฉบับเต็ม

		ระดับความน่าเชื่อถือของหลักฐานเชิงประจักษ์	ระดับข้อเสนอแนะการนำไปใช้
ปัจจัยเสี่ยงและการประเมินความเสี่ยง (Risk Factors and Risk Assessment)			
1.1	พิจารณาในแต่ละบุคคลที่มีข้อจำกัดด้านการเคลื่อนไหว ข้อจำกัดในการทำกิจกรรม และโอกาสสูงเกี่ยวกับแรงเสียดสี และแรงเฉือนต่อความเสี่ยงของการเกิดแผลกดทับ	A	↑↑
1.2	พิจารณาประเมินความเสี่ยงผู้ที่มีแผลกดทับระดับ 1ในแต่ละรายเพราะมีความเสี่ยงสูงในการเปลี่ยนไปเป็นแผลกดทับระดับ 2 หรือระดับที่รุนแรงมากขึ้น	A	↑↑
1.3	พิจารณาผลกระทบจากแผลกดทับระดับใดก็ตามที่มีอยู่เดิมซึ่งสามารถทำให้เกิดแผลกดทับเพิ่มขึ้นได้	C	↑
1.4	พิจารณาโอกาสที่จะเกิดผลกระทบจากแผลกดทับระดับใดก็ตามที่มีอยู่เดิมซึ่งสามารถทำให้เกิดแผลกดทับเพิ่มขึ้นได้	GPS	

ระดับความน่าเชื่อถือของหลักฐานเชิงประจักษ์	
A	• หลักฐานที่ได้จากการวิจัยระดับ 1 (Level 1) ที่มีคุณภาพสูงมากกว่า 1 การวิจัยที่แสดงหลักฐานตรงหัวข้อ • หลักฐานมีความสอดคล้องกัน
B1	• หลักฐานที่ได้จากการวิจัยระดับ 1 (Level 1) ที่มีคุณภาพปานกลางหรือต่ำ ที่แสดงหลักฐานตรงหัวข้อ • หลักฐานที่ได้จากการวิจัยระดับ 2 (Level 2) ที่มีคุณภาพปานกลางหรือต่ำ ที่แสดงหลักฐานตรงหัวข้อ • การวิจัยส่วนใหญ่มีผลลัพธ์ที่สอดคล้องและไม่สอดคล้องที่สามารถอธิบายได้
B2	• หลักฐานที่ได้จากการวิจัยระดับ 2 (Level 2) ที่มีคุณภาพต่ำ ที่แสดงหลักฐานตรงหัวข้อ • หลักฐานที่ได้จากการวิจัยระดับ 3 หรือ 4 (Level 3 or 4) (โดยไม่คำนึงถึงคุณภาพ) ที่แสดงหลักฐานตรงหัวข้อ • การศึกษาส่วนใหญ่มีผลลัพธ์ที่สอดคล้อง และไม่สอดคล้อง ที่สามารถอธิบายได้
C	• หลักฐานที่ได้จากการวิจัยระดับ 5 (Level 5) (หลักฐานทางอ้อม) เช่น การวิจัยในกลุ่มตัวอย่างที่เป็นมนุษย์ มนุษย์ที่มีแผลเรื้อรังอื่น ๆ การทดลองในสัตว์ • หลักฐานที่มีเนื้อหาไม่สอดคล้องกัน ที่ไม่สามารถอธิบายได้ สะท้อนความไม่แน่นอนที่เกิดขึ้นจริงในหัวข้อนั้น
GPS	**คำแถลงข้อปฏิบัติที่ดี** • คำแถลงซึ่งไม่สนับสนุนด้วยเนื้อหาของหลักฐานที่ระบุไว้ข้างต้น แต่ได้รับการพิจารณาโดย GGG ว่ามีนัยสำคัญสำหรับการปฏิบัติทางคลินิก

ระดับข้อเสนอแนะการนำไปใช้	
↑↑	ข้อเสนอแนะในทางบวกที่เข้มแข็ง ชัดเจน: นำไปปฏิบัติได้ทันที
↑	ข้อเสนอแนะในทางบวกที่อ่อน: อาจนำไปปฏิบัติได้
↔	ไม่มีข้อเสนอแนะเฉพาะ
↓	ข้อเสนอแนะในทางลบที่อ่อน: อาจจะไม่ปฏิบัติ
↓↓	ข้อเสนอแนะในทางลบที่ชัดเจน: ห้ามปฏิบัติอย่างเด็ดขาด

สารบัญ

ปัจจัยเสี่ยงและการประเมินความเสี่ยง
(Risk Factors and Risk Assessment)

Clinical questions

- What factors put individuals at risk for pressure injury development?
- What are the unique pressure injury risk factors to consider for special populations (if any)?
- What are accurate and effective methods for pressure injury risk assessment?

1.1: Consider individuals with limited mobility, limited activity and a high potential for friction and shear to be at risk of pressure injuries.

(Strength of Evidence = A; Strength of Recommendation = ↑↑)

Implementation Considerations

- Consider mobility and activity limitations to be a necessary condition for pressure injury development.
- Risk assessment subscales for mobility, friction and shear,and activity may be used as clinical indicators of mobility and activity limitations.
- Consider bedfast/chairfast individuals to be at pressure injury risk, especially when mobility is also impaired and the potential for friction and shear with movement is increased.
- Consider the requirement to assess population-specific criteria to fully evaluate the individual's types and degree of mobility and activity impairment (e.g., SCI).
- Consider the duration of mobility limitations on pressure injury risk. Mobility may be impaired on a temporary basis (e.g., sedation surgery,limb fractures, restraints, guarding with pain, etc.) or permanent basis (e.g.,SCI, other paralysis, etc.).

การประเมินผิวหนังและเนื้อเยื่อ (Skin and Tissue Assessment)

Clinical Questions

The clinical questions that guided the development of this chapter were:

- Are scale/ tools effective methods to assess the skin and soft tissue?
- What are effective methods of assessing erythema?
- Is evaluation of skin and tissue moisture an effective method of assessing the skin and soft tissue?
- Is evaluation of skin and tissue temperature an effective method of assessing the skin and soft tissue?
- What additional technologies are accurate and effective methods of assessing skin and soft tissue?
- What methods are effective for assessing skin and soft tissue in individuals with darkly pigmented skin?

2.2: Inspect the skin of individuals at risk of pressure injuries to identify presence of erythema.

(Strength of Evidence = A; Strength of Recommendation = ↑↑)

Implementation Considerations

- Inspection of the skin should include a visual inspection in conjuction with other skin assessment techniques such as touch and palpation for differences in temperature and tissue consistency .
- Ensure adequate tangential lighting during visual inspection of the skin.
- To perform the finger pressure method, a finger is pressed on the erythema for three seconds and blanching is assessed following removal of the finger on intact skin.
- To perform the transparent disk method, a transparent disk is used to apply pressure equally over an area of erythema and blanching can be observed underneath the disk during its application.
- If there is difficulty in differentiating between a Category/Stage I pressure injury and reactive hyperemia, relieve the pressure area for 30 minutes, then repeat the skin inspection.
- Large skin areas require several measurement points.
- Document the findings of all skin assessments.

Assessing Erythema

There are two commonly used methods to assess erythema:

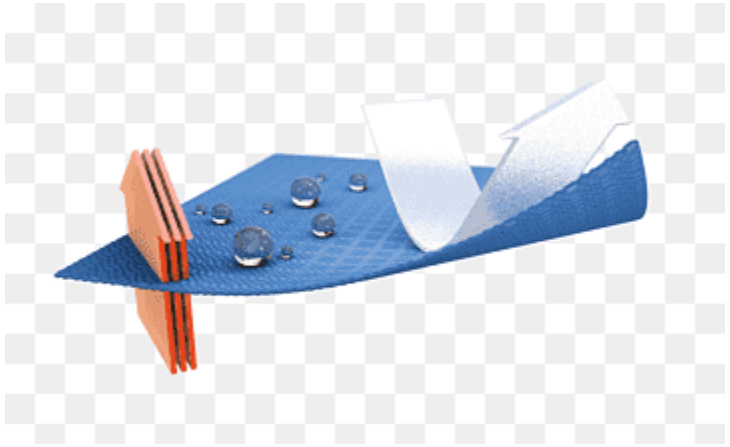
- Finger pressure method — a finger is pressed on the erythema for three seconds and blanching is assessed following removal of the finger
- Transparent disk method — a transparent disk is used to apply pressure equally over an area of erythema and blanching can be observed underneath the disk during its application.

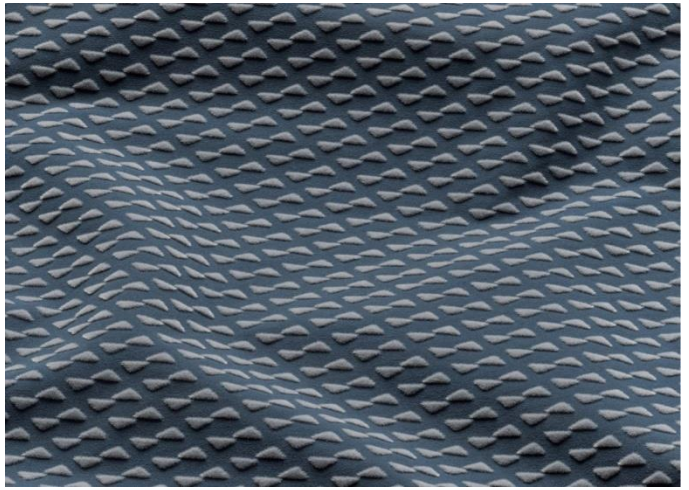
การป้องกันและการดูแลผิวหนัง (Preventive Skin Care)

Clinical Question

The clinical questions that guided the development of this chapter were:

- Is massage effective in preventing pressure injuries?
- Are topical products effective in preventing pressure injuries?
- Are prophylactic dressings effective for preventing pressure injuries?
- Are continence management strategies effective in preventing and treating pressure injuries?
- Are low friction or microclimate control fabrics effective for preventing pressure injuries?





3.1: Implement a skin care regimen that includes:

- Keeping the skin clean and appropriately hydrated
- Cleansing the skin promptly after episodes of incontinence
- Avoiding use of alkaline soaps and cleansers
- Protecting the skin from moisture with a barrier product.

(Strength of Evidence = B2; Strength of Recommendation = ↑↑)

Implementation Considerations

- Frequency of cleansing should be individualized .
- When washing, drying and applying a barrier product, avoid vigorous massage or rubbing of the skin that can damage the skin due to friction.
- Consider using a non-rinse skin cleanser.

การประเมินภาวะโภชนาการและโภชนบำบัด

(Nutrition Assessment and Treatment)

Clinical Questions

The clinical questions that guided the development of this chapter were:

- What are accurate and effective methods for assessing nutritional status of individuals with or at risk of pressure injuries?
- What nutritional interventions are effective in preventing pressure injuries?
- Is there an ideal nutritional regimen to reduce the risk of pressure injuries, and if so, what should it include?
- Are any nutritional supplements (e.g. formulas, specific vitamins/minerals) effective in reducing risk of pressure injury development?
- What nutritional interventions are effective in supporting pressure injury healing?
- Is there an optimal nutritional regimen to promote healing of pressure injuries, and if so, what should it include?
- Are any specific oral nutritional supplements or formula effective in promoting healing of pressure injuries?

4.1: Conduct nutritional screening for individuals at risk of a pressure injury. (Strength of Evidence = B1; Strength of Recommendation = ↑↑)

Implementation Considerations

- Use a simple, valid and reliable nutritional screening tool.
- The standards of practice for the registered dietitian/nutritionist, through the nutrition care process, recommend for individuals to be screened on admission to a health care setting. It is advised to re-screen individuals with each significant change in their clinical condition; and/or if pressure injury healing trajectory is not as expected.
- Any qualified member of the health care team may complete nutrition screening.
- The Mini Nutritional Assessment full version (MNA®) and the Malnutrition Universal Screening Tool (MUST) screening tools have good psychometric properties when used to screen nutritional status of individuals with or at risk of pressure injuries.
- The Nutrition Risk Screening (NRS) 2002, Rapid Screen and the Short Nutrition Assessment Questionnaire (SNAQ)

have good psychometric properties when used to screen nutritional status of older adults.

- The Seniors in the Community: Risk Evaluation for Eating and Nutrition (SCREEN-II AB) has good psychometric properties when used to screen nutritional status of older adults in community settings.
- The Canadian Nutrition Screening Tool (CNST) has good psychometric properties when used to screen nutritional status of adults in acute .
- Individuals identified as malnourished, with pressure injuries, at risk for developing pressure injuries, or with significant change in condition should be referred to the registered dietitian/nutritionist for an in-depth nutrition assessment.

การเปลี่ยนท่าและการเริ่มเคลื่อนไหวร่างกาย (Repositioning and Early Mobilization)

Clinical Questions

The clinical questions that guided the development of this chapter were:

- How often should repositioning be performed to reduce the risk of pressure injuries?
- What criteria should be used to determine and monitor frequency of turning?
- What positioning techniques are most effective in redistributing pressure and preventing shear?
- Do programs of early mobilization affect pressure injury rates?

5.1: Reposition all individuals with or at risk of pressure injuries on an individualized schedule, unless contraindicated.

(Strength of Evidence = B1; Strength of Recommendation = ↑↑)

Implementation Considerations

- The individual's physical, cognitive and psychological condition, and type of support surface in use should be considered when planning repositioning needs.
- Encourage and educate individuals who are able to regularly reposition themselves when in bed and seated. For individuals with SCI, provide education on repositioning during initial rehabilitation and regularly thereafter.
- Establish and document individualized pressure relief schedules that prescribe the frequency and duration of weight shifts.
- Reconsider the frequency and method of repositioning if the individual is not responding as expected to the repositioning regimen.
- Record when the individual was repositioned, specifying frequency and position adopted, and include an evaluation of the outcome.

แผลกดทับบริเวณส้นเท้า (HEEL PRESSURE INJURIES)

Clinical Questions

The clinical questions that guided the development of this chapter were:

- What factors put individuals at risk for heel pressure injury development?
- What are accurate and effective methods for assessing heel skin and tissue?
- What are effective local management strategies (e.g., skin care, prophylactic dressings) in preventing heel pressure injuries?
- What heel repositioning interventions are effective in preventing heel pressure injuries?
- What support surfaces and devices are effective in preventing heel pressure injuries?
- What are effective strategies for treating heel pressure injuries?
- What factors affect healing of heel pressure injuries?

6.2: For individuals at risk of heel pressure injuries and/or with Category/Stage I or II pressure injuries, elevate the heels using a specifically designed heel suspension device or a pillow/ foam cushion. Offload the heel completely in such a way as to distribute the weight of the leg along the calf without placing pressure on the Achilles tendon and the popliteal vein.

(Strength of Evidence = B1; Strength of Recommendation = ↑↑)

Pressure ulcer on Achilles tendon

Implementation Considerations

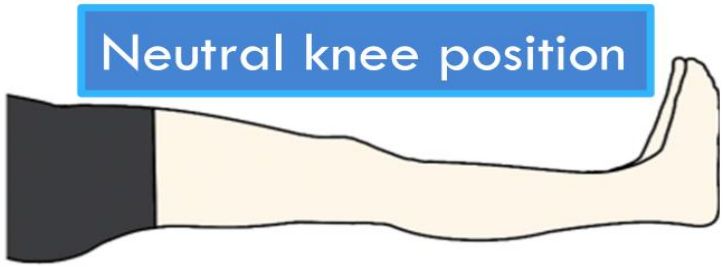
- Ensure the heels are free from the surface of the bed.
- When selecting a heel suspension device consider:
  - o The individual's clinical condition, including factors that may increase movement of the legs (e.g., agitation and muscles spasms)
  - o Skin integrity and presence of edema
  - o Anatomical appearance/alignment of the hip, foot and lower leg
  - o Plan of care
  - o The individual's tolerance of the device
  - o The manufacturer's guidelines.

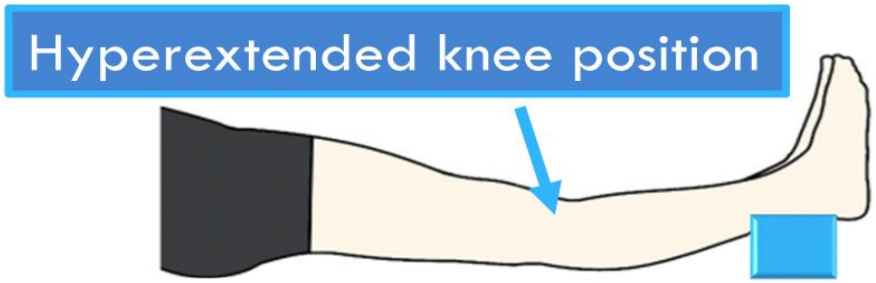
- **Knee should be in slight (5° to 10°) flexion .**
- Avoid areas of high pressure, especially under the Achilles tendon. Distribute pressure along the full length of the calves.
- Consider selecting a device with a positioning block if the individual's foot is not aligned in optimal positioning (e.g., if the foot falls into lateral or external rotation) .
- Apply heel suspension devices according to the manufacturer's instructions .
- Remove the heel suspension device periodically (at least twice/day) to assess skin integrity and perfusion status.
- Remove the positioning device more frequently if edema or fluid shifting is present .

Why Flex Knee?

Knee should be in slight (5° to 10°) flexion .

- Indirect evidence that hyperextension of knee may cause obstruction of popliteal vein, which could predispose an individual to DVT.





Heel Protectors

- Knee should be in slight (5° to 10°) flexion

อุปกรณ์รองรับร่างกาย (Support Surfaces)

Clinical Questions

The clinical questions that guided the development of this chapter were:

- What reactive support surfaces are effective in preventing pressure injuries?
- What active support surfaces are effective in preventing pressure injuries?
- When should an active support surface be used to prevent pressure injuries?
- What is the most effective seating support surface for preventing pressure injuries?
- What reactive support surfaces are effective in supporting pressure injury healing?
- What active support surfaces are effective in supporting pressure injury healing?
- When should an active support surface be used to support pressure injury healing?
- What is the most effective seating support surface for preventing pressure injuries?

7.2: Ensure that the bed surface area is sufficiently wide to allow turning of the individual.

(Strength of Evidence = C; Strength of Recommendation = ↑)

Implementation Considerations

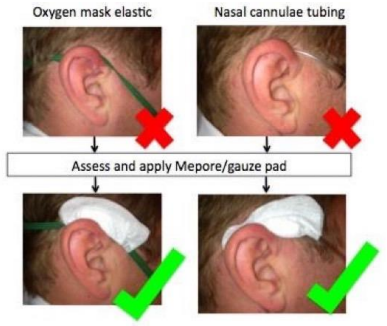
- Bed sides or rails, bedside furniture and equipment at the bedside can be a source of device related pressure injuries if there is insufficient clearance between the individual and the edge of the bed
- Be aware of manual handling risk to the caregiver (i.e., staff leaning/reaching further to care for an individual) when using extra wide beds.
- Use equipment (e.g., beds, chairs, transfer equipment etc.) that is sufficiently wide and strong to accommodate the individual's girth and weight.
- Ensure the bed is an adequate length to enable correct positioning of the individual on the support surface .

อุปกรณ์ทางการแพทย์ที่มีผลต่อการเกิดแผลกดทับ (Device Related Pressure Injuries)

Clinical Questions

The clinical questions that guided the development of this chapter were:

- What factors should be considered when selecting and fitting a medical device?
- What local management strategies are effective in preventing MDRPIs?
- Is a prophylactic dressing effective for preventing MDRPIs? If so, what factors should be considered when selecting a prophylactic dressing?



การจำแนกประเภทของแผลกดทับ
(Classification of Pressure Injuries)

Clinical Questions

- What are the most commonly recognized and used pressure injury classification systems and how do they relate to one another?

International NPUAP/ EPUAP Pressure Ulcer Classification System (2009, 2014)	WHO ICD-11 (2018)	NPUAP Classification System (April 2016)

- What are the recognized characteristics of each pressure injury category (i.e. Category/Stage I to IV, unstageable pressure injury and deep tissue pressure injury or suspected deep tissue injury)?

การประเมินแผลกดทับและการติดตามการหายของแผลกดทับ (Assessment of Pressure Injuries and Monitoring of Healing)

Clinical Questions

The clinical questions that guided the development of this chapter were:

- What are accurate and effective strategies for evaluating/assessing pressure injuries?
- What are accurate and effective strategies for monitoring healing over time?
- What are the most commonly recognized and used pressure injury assessment/monitoring tools/scales and how do they relate to one another?
- Which pressure injury monitoring tools are most responsive to change over time and most accurately describe the healing trajectory of the wound (i.e., healing, deteriorating, and stalled)?

	Pressure injury specific	Tool Description	Psychometric Properties
DESIGN-R[72]	Yes	7 items scored on numeric/ description scales that combine to produce an overall severity score	• Strong correlation with BWAT (correlational co-efficient = 0.91)[70] • Interrater reliability when assessing clinical wounds, r = 0.91[70] • Interrater reliability when assessing photographed wounds, r = 0.94[70]
Bates-Jensen Wound Assessment Tool (BWAT)[74]	Yes	15 items (13 wound characteristics scored on a Likert scale and 2 unscored items)	• Interrater reliability when assessing clinical wounds, ICC = ranged from 0.78[68] to 0.92[69] • Intrarater reliability when assessing clinical wounds, ICC = ranged from 0.89[68] to 0.99[69] • Moderate correlation with Category/Stage of pressure injury (r = 0.55, p = 0.001)[77] • Strong correlation with PUSH©, with correlation increasing in repeated measures over time (r = 0.72 to 0.95)[66]
Pressure Ulcer Scale for Healing (PUSH©)[75]	Yes	3 items scored on numeric/ description scales that combine to produce an overall total healing score	• Total PUSH© score explains 31% of variation in pressure injury over time[67] • Good correlation with wound tracings (r = 0.63, p = 0.01)[72] • Strong correlation with BWAT, with correlation increasing in repeated measures over time (r = 0.72 to 0.95)[66]
Spinal Cord Impairment Pressure Ulcer Monitoring Tool (SCI-PUMT)[76]	Yes	7 items scored on numeric/ description scales that combine to produce an overall severity score	• Interrater reliability when assessing clinical wounds, r= 0.79[78] • Intrarater reliability when assessing clinical wounds, r= 0.81 to 0.99[78]

NATIONAL PRESSURE ULCER ADVISORY PANEL

Pressure Ulcer Scale for Healing (PUSH)

PUSH Tool 3.0

Patient Name_____ Patient ID# _____

Ulcer Location _____ Date _____

Directions:

Observe and measure the pressure ulcer. Categorize the ulcer with respect to surface area, exudate, and type of wound tissue. Record a sub-score for each of these ulcer characteristics. Add the sub-scores to obtain the total score. A comparison of total scores measured over time provides an indication of the improvement or deterioration in pressure ulcer healing.

LENGTH X WIDTH (in cm^2)	**0** 0	**1** < 0.3	**2** 0.3 – 0.6	**3** 0.7 – 1.0	**4** 1.1 – 2.0	**5** 2.1 – 3.0	Sub-score
		6 3.1 – 4.0	**7** 4.1 – 8.0	**8** 8.1 – 12.0	**9** 12.1 – 24.0	**10** > 24.0	
EXUDATE AMOUNT	**0** None	**1** Light	**2** Moderate	**3** Heavy			Sub-score
TISSUE TYPE	**0** Closed	**1** Epithelial Tissue	**2** Granulation Tissue	**3** Slough	**4** Necrotic Tissue		Sub-score
							TOTAL SCORE

Length x Width: Measure the greatest length (head to toe) and the greatest width (side to side) using a centimeter ruler. Multiply these two measurements (length x width) to obtain an estimate of surface area in square centimeters (cm^2). Caveat: Do not guess! Always use a centimeter ruler and always use the same method each time the ulcer is measured.

Exudate Amount: Estimate the amount of exudate (drainage) present after removal of the dressing and before applying any topical agent to the ulcer. Estimate the exudate (drainage) as none, light, moderate, or heavy.

Tissue Type: This refers to the types of tissue that are present in the wound (ulcer) bed. Score as a "4" if there is any necrotic tissue present. Score as a "3" if there is any amount of slough present and necrotic tissue is absent. Score as a "2" if the wound is clean and contains granulation tissue. A superficial wound that is reepithelializing is scored as a "1". When the wound is closed, score as a "0".

- **4 – Necrotic Tissue (Eschar):** black, brown, or tan tissue that adheres firmly to the wound bed or ulcer edges and may be either firmer or softer than surrounding skin.
- **3 – Slough:** yellow or white tissue that adheres to the ulcer bed in strings or thick clumps, or is mucinous.
- **2 – Granulation Tissue:** pink or beefy red tissue with a shiny, moist, granular appearance.
- **1 – Epithelial Tissue:** for superficial ulcers, new pink or shiny tissue (skin) that grows in from the edges or as islands on the ulcer surface.
- **0 – Closed/Resurfaced:** the wound is completely covered with epithelium (new skin).

NATIONAL PRESSURE ULCER ADVISORY PANEL

Pressure Ulcer Healing Chart

To monitor trends in PUSH Scores over time

(Use a separate page for each pressure ulcer)

Patient Name_____ Patient ID# _____

Ulcer Location _____ Date _____

Directions:

Observe and measure pressure ulcers at regular intervals using the PUSH Tool.
Date and record PUSH Sub-scores and Total Scores on the Pressure Ulcer Healing Record below.

Pressure Ulcer Healing Record														
Date														
Length x Width														
Exudate Amount														
Tissue Type														
PUSH Total Score														

Graph the PUSH Total Scores on the Pressure Ulcer Healing Graph below.

PUSH Total Score	Pressure Ulcer Healing Graph													
17														
16														
15														
14														
13														
12														
11														
10														
9														
8														
7														
6														
5														
4														
3														
2														
1														
Healed = 0														
Date														

SCI-PUMT

Spinal Cord Impairment Pressure Ulcer Monitoring Tool

Patient _____ SS#_____ Ulcer # _____

Pressure Ulcer

Site: ☐ Sacrum-Coccyx ☐ Trochanter ☐ Ischium ☐ Heel ☐ Other _____

Body Side: ☐ Right ☐ Left ☐ Midline

Orientation: ☐ Medial ☐ Lateral ☐ Superior ☐ Inferior ☐ Other _____

Positioning

Upper Leg *Flexed* When Turned: ☐ Yes ☐ No

Dependent Side: ☐ Right Side-Lying ☐ Left Side-Lying ☐ Back ☐ Abdomen

Variables	Scoring Options						Score
GEOMETRIC FACTORS							
Surface Area (L x W)	**1** > 0 - ≤1 cm^2	**2** >1 - ≤2.5 cm^2	**3** >2.5 - ≤5 cm^2	**4** >5 - ≤10 cm^2	**5** >10 - ≤15 cm^2		☐
	6 >15 - ≤25 cm^2	**7** >25 - ≤35 cm^2	**8** >35 - ≤55 cm^2	**9** >55 - ≤85 cm^2	**10** >85 cm^2	**L x W** ___ cm x ___cm	
Do not continue if the Surface Area is "O" indicating complete epithelialization (i.e., resurfacing)							
Depth	**0** 0 cm	**1** >0 - ≤1 cm	**2** >1 - ≤2 cm	**3** >2 - ≤3 cm	**4** >3 cm	**D** ___ cm	☐
Edges	**1** *Not* rolled under, thickened, fibrotic, scarred, or hyperkeratotic		**2** Rolled under, thickened, fibrotic, scarred, or hyperkeratotic				☐
Tunneling	**0** None	**1** ≤ 2 cm	**2** > 2 - ≤ 4 cm	**3** >4 cm			☐
Undermining	**0** None	**1** ≤ 2 cm	**2** > 2 - ≤ 4 cm	**3** >4 cm			☐
						GEOMETRIC SUBTOTAL	☐
SUBSTANCE FACTORS							
Exudate Type	**0** None	**1** Serous or Sanguineous	**2** Green or Purulent				☐
Necrotic Tissue Amount	**0** None	**1** ≤ 25%	**2** >25%				☐
						SUBSTANCE SUBTOTAL	☐
						TOTAL	☐

Maximum score = **26** The HIGHER the score, the more severe the ulcer

Evaluator: _____ Date:_____

May 15, 2011

10.5: Select a uniform, consistent method for measuring pressure injury size and surface area to facilitate meaningful comparisons of wound measurements across time.

(Strength of Evidence = B2, Strength of Recommendation = ↑↑)

Implementation Considerations

- Cleanse the wound before surface measurement or probing for depth, undermining or tunneling.
- Use standard aseptic technique/clean technique for measurement of most pressure injuries. Rulers that touch the surface of the wound should be clean and single-use to avoid crosscontamination of micro-organisms. Instruments or swabs that probe depth, undermining or tunnelling should be sterile .
- Use wound tracing in preference to the ruler method if the pressure injury is irregularly shaped.
- Position the individual in a consistent neutral position for wound measurement.
- Document the individual's position during pressure injury measurement to enable replicability during repeated measurements.
- Care should be taken to avoid causing tissue damage when probing the depth of the wound bed or determining the extent of undermining or tunneling.
- Health professionals who perform digital wound measurement and photography for assessment and monitoring of healing should be appropriately trained in use of equipment.
- Document wound measurements in a manner that enables ongoing comparison to determine the wound's progress towards healing. Valid and reliable tools should be used to monitor change in pressure injury size

การทำความสะอาดแผลและการกำจัดเนื้อตาย (Cleansing and Debridement)

Clinical Questions

The clinical questions that guided the development of this chapter were:

- What local pressure injury treatments are effective for supporting healing (i.e., cleansing, debridement, topical agents, wound dressings, etc.)?

12.1: Cleanse the pressure injury.

(Strength of Evidence = B1; Strength of Recommendation = ↑)

Implementation Considerations

- The type and frequency of cleansing should be based on the wound size, Category/Stage, and wound bed characteristics .
- Manage pain before cleansing the pressure injury .
- Cleanse most pressure injuries and the peri-wound skin with potable water (i.e., water suitable for drinking) or normal saline.
- In some countries and organizations, individuals with chronic wounds can bath or shower to cleanse the wound, if there is access to non-shared, appropriately cleaned, bathing facilities. In other countries or organizations, the use of sterile water or cleansing solutions is mandated. Develop a cleansing regimen with consideration to local standards4 and policies, cleanliness of facilities, the anatomical location of the pressure injury and the individual's preferences.
- Cleanse pressure injuries with sinus tracts/tunneling/undermining with caution.

การใช้แนวปฏิบัติที่ดีที่สุดในคลินิก

(Implementing Best Practice in Clinical settings)

Clinical Questions

- What organizational level interventions/quality improvement programs are effective in attaining sustained pressure injury prevention?
- What are the professional and organizational level components of interventions/quality improvement programs that are effective in attaining sustained pressure injury prevention?
- What organizational level factors facilitate or are barriers to implementing best practice in pressure injury prevention and treatment?

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Prevention and Treatment of Pressure Ulcers/Injuries: Clinical Practice Guideline

The International Guideline 2019

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NPIAP NATIONAL PRESSURE INJURY ADVISORY PANEL

PAN PACIFIC Pressure Injury Alliance