

## PREVENTION AND MANAGEMENT OF PRESSURE INJURIES

**1. REASON FOR ISSUE:** This Veterans Health Administration (VHA) directive provides policy and implementation procedures for the assessment, prevention, and management of pressure injuries across VHA clinical practice settings.

**2. SUMMARY OF MAJOR CHANGES:** This revised VHA directive outlines the responsibilities of VA medical facility leaders and interprofessional care teams for pressure injury prevention and management. The data source and procedure used to calculate hospital acquired pressure injuries has been revised to allow benchmarking with the private sector facilities. Other modifications include replacing the term pressure ulcer with pressure injury and revising the stages of pressure injury to reflect National Pressure Ulcer Advisory Panel (2016) recommendations adopted in the healthcare industry (see paragraph 20.aa.).

**3. RELATED ISSUES:** VHA Handbook 1004.01, Informed Consent for Clinical Treatments and Procedures, dated August 14, 2009; VHA Handbook 1004.02, Advance Care Planning and Management of Advance Directives, dated December 24, 2013; VHA Handbook 1907.01, Health Information Management and Health Records, dated March 19, 2015; and VHA Directive 2009-053, Pain Management, dated October 28, 2009.

**4. RESPONSIBLE OFFICE:** The Office of Nursing Services (ONS) (10A1) is responsible for the content of this VHA directive. Questions may be referred to 202-461-6700.

**5. RESCISSION:** VHA Handbook 1180.02, Prevention of Pressure Ulcers, dated July 1, 2011, is rescinded.

**6. RECERTIFICATION:** This VHA directive is scheduled for recertification on or before the last working day of March 2024. This VHA directive will continue to serve as national VHA policy until it is recertified or rescinded.

**CERTIFIED BY:**

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Acting Principal Deputy Under Secretary  
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**BY DIRECTION OF THE UNDER  
SECRETARY FOR HEALTH:**

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Acting Principal Deputy Under Secretary  
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**March 21, 2019**

**VHA DIRECTIVE 1352**

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**NOTE:** *All references herein to VA and VHA documents incorporate by reference subsequent VA and VHA documents on the same or similar subject matter.*

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## PREVENTION AND MANAGEMENT OF PRESSURE INJURIES

### 1. PURPOSE

This Veterans Health Administration (VHA) directive provides policy and procedures to prevent, assess, and manage pressure injuries in VHA clinical practice settings. It delineates the minimal clinical requirements to promote care to prevent and manage pressure injuries in Acute Care Services, Inpatient Mental Health Services, Spinal Cord Injury (SCI) Services, Community Living Centers (CLC), Home-Based Primary Care (HBPC) Services and Ambulatory Care Services. **AUTHORITY:** Title 38 United States Code (U.S.C.) 7301(b).

### 2. BACKGROUND

a. Pressure injury prevention and management across the continuum of care is a priority for VHA and throughout the health care industry. National program planning and oversight was provided by the VHA Interprofessional Hospital Acquired Pressure Ulcer (HAPU) Prevention Taskforce, comprised of clinicians; researchers; and subject matter experts in skin and wound care, information technology, and data collection and analysis. Each VA medical facility established an Interprofessional Pressure Ulcer Committee to guide, monitor, and evaluate the pressure ulcer prevention program, and report findings to VA medical facility leadership. Each VA medical facility was required to have an inpatient certified Wound Care Specialist on staff.

b. VHA uses Patient Safety Indicators (PSI), the method used by the Agency for Healthcare Research and Quality (AHRQ) (see paragraph 20.e.), as the exclusive method of reporting hospital acquired pressure injuries (HAPIs) (formerly called hospital acquired pressure ulcers (HAPUs). PSIs are designed to improve the validity and reliability of reporting, and to provide a method to improve benchmarking. Coders review the electronic health record at discharge from an acute inpatient care setting and input provider-documented HAPI diagnoses. The incidence rates calculated from the PSI 03 include stage 3, stage 4, and unstageable HAPIs.

c. In 2015, VHA implemented specific strategies to improve pressure injury prevention and management in 9 areas identified by the Office of Inspector General (see paragraph 20.n.). Strategies included strengthening the effectiveness of the VA medical facility Interprofessional Pressure Injury Committee; engaging VA medical facility leadership; expanding discipline and practice setting-specific training; and improving assessment, documentation, and reporting (see paragraphs 20.n., and 20.ff.).

d. In 2016, VHA adopted the recommendation of the National Pressure Ulcer Advisory Panel (NPUAP) to replace the term of pressure ulcer with pressure injury and revise the stages of pressure injuries to reflect evidence-informed recommendations adopted by the health care industry (see paragraph 20.aa.). Any use of older terminology (for example pressure ulcer, pressure sore) in this directive reflects historical information or historic-copyrighted material such as appears in article titles or risk scales.

e. In 2017, the VHA Pressure Injury Prevention and Management Field Advisory Committee, sponsored by the Office of Nursing Services, replaced the Interprofessional HAPU Prevention Taskforce in 2017.

f. VHA's goal is to eliminate avoidable pressure injuries throughout the organization. Pressure injuries are a cause of significant morbidity and mortality among hospitalized, institutionalized, mobility-compromised, as well as malnourished/undernourished individuals (see paragraphs 20.u., 20.y., 20.bb., 20.gg., and 20.kk.). Pressure injury prevalence and incidence rates, as well as other measurements, may be important indicators of patient safety. Most pressure injuries are avoidable; however, unavoidable pressure injuries may develop and existing injuries may worsen despite appropriate care in certain high-risk individuals (see paragraphs 20.k., 20.p., and 20.hh.). The NPUAP describes unavoidable as when the individual develops a pressure injury even though the provider (for example Advanced Practice Registered Nurse (APRN), Physician, Physician Assistant (PA) evaluated the individual's clinical condition and pressure injury risk factors; defined and implemented interventions that are consistent with individual needs, goals, and recognized standards of practice; monitored and evaluated the impact of the interventions; and revised the approaches as appropriate. Situations in which unavoidable pressure injuries occur include but are not limited to the following:

(1) Pathophysiologic conditions such as hemodynamic instability made worse by turning (e.g. offloading) or local tissue hypoperfusion occurring concurrent with severe dysfunction or failure of other organ systems resulting in "skin failure" (see paragraph 20.v.);

(2) A Patient's/Resident's personal decision involving the withholding of artificial nutrition and/or voluntary refusal to eat includes shared decision-making and consideration of information in the advance directive when Patients/Residents cannot speak for themselves (see paragraphs 20.b., 20.f., and 20.kk.);

(3) A Patient's/Resident's personal decisions involving refusal of skin inspections, or refusal of repositioning (see paragraph 20.a.); and

(4) A Patient's/Resident's self-positioning on high-risk areas despite being educated about those risks (see paragraphs 20.k., 20.p., and 20.hh.).

### 3. DEFINITIONS

a. **Braden Scale for Predicting Pressure Sore Risk (Braden Scale)**. The Braden Scale is a tool utilized by health care professionals to score or predict a Patient's/Resident's level of risk for developing pressure injuries while hospitalized. The Braden Scale is also used in other settings and is comprised of six risk categories: sensory perception, moisture, activity, mobility, nutrition, and friction/shear (see paragraphs 20.i., and 20.l.).

b. **Care Area Assessment Process**. The Care Area Assessment (CAA) process is designed to assist the assessor to systematically interpret the information recorded on

the Minimum Data Set. Once a care area has been triggered, nursing home providers use current, evidence-based clinical resources to conduct an assessment of the potential problem and determine whether or not to care plan for it. The CAA process helps the clinician to focus on key issues identified during the assessment process so that decisions as to whether and how to intervene can be explored with the Resident (see paragraph 20.m.)

c. **Certified Wound Care Specialist.** A Certified Wound Care Specialist is a provider (for example Advanced Practice Registered Nurse, Physician Assistant, Physician, Podiatrist) or licensed or registered clinician (for example Registered Nurse, Physical Therapist) certified by one of the nationally recognized wound care certification organizations. A list of approved certification (nursing and other professional) organizations is available on the Office of Nursing Services (ONS) Web site (<https://vaww.va.gov/nursing/certcampaign.asp>). **NOTE:** *This is an internal VA Web site that is not available to the public.*

d. **Change in Medical Condition.** A change in medical condition includes but is not limited to any of the following:

- (1) Decrease in mobility.
- (2) Decrease in activity.
- (3) Development of fecal or urinary incontinence.
- (4) Immobility due to surgery or other procedure.
- (5) Change in mental status.
- (6) Unrelieved pain.
- (7) Gross physiological change (for example, from stable to unstable).

(8) Decline of nutritional condition as indicated by significant weight change (see paragraphs 20.x., and 20.ee.).

e. **Friction and Shear.** Friction is the mechanical force exerted on skin that is dragged across a surface (see paragraph 20.bb.). Friction alone does not cause pressure injuries, although it may cause an alteration in skin integrity. Shear is the interaction of gravity and friction. Friction is always present when shear force is present. Shear occurs when layers of skin slip against each other or when the skin remains stationary and the underlying tissue moves, stretches and angulates, or tears the underlying capillaries and blood vessels, causing tissue damage (see paragraph 20.bb.).

f. **Interprofessional Pressure Injury Committee (formerly the Interprofessional Pressure Ulcer Committee).** The Interprofessional Pressure Injury Committee (IPIC)

is an interdisciplinary body that implements and monitors the VA medical facility's Pressure Injury Prevention Program using this directive as a guide.

g. **Medical Device.** Medical devices are products used for diagnostic or therapeutic purposes that directly contact the skin or tissue (for example oxygen tubing, catheters, splints, casts). Medical device related pressure injuries may conform to the pattern or shape of the device.

h. **Minimum Data Set.** The Minimum Data Set (MDS) is a core set of screening, clinical, and functional status elements, including common definitions and coding categories that form the foundation of the comprehensive assessment for all residents in Community Living Centers (CLC) (see paragraph 20.m.). MDS is a component of Resident Assessment Instrument (RAI).

i. **Moisture.** Moisture is the presence of a liquid, frequently from perspiration, weeping edema, or irritants in urine or feces that may contribute to skin damage from irritation or erosion.

j. **Mucosal Membrane.** The mucosal membrane is the moist lining of body cavities that communicate with the exterior (for example gastrointestinal tract, tongue, nasal passages, urinary tract, and vaginal canal) (see paragraphs 20.z., and 20.aa.).

k. **Patient Safety Indicators.** Patient Safety Indicators (PSI) is a set of measures used to screen for adverse events that Patients/Residents may experience when exposed to the health care system. PSI 03 is the measure used to screen for the hospital complication of pressure injuries (see paragraph 20.e.).

l. **Personal Support Persons.** The Personal Support Persons (PSP) is the Patient's/Resident's designated family member(s), surrogate(s), or authorized decision makers.

m. **Pressure Injury (formerly referred to as pressure ulcer).** A pressure injury is localized damage to the skin and underlying soft tissue, usually either over a bony prominence or related to a medical or other device. The injury can present as intact skin or an open ulcer and may be painful. The injury occurs as a result of intense and/or prolonged pressure, or pressure in combination with shear. The tolerance of soft tissue for pressure and shear may be affected by microclimate, nutrition, perfusion, co-morbidities, and condition of the soft tissue. ***NOTE: Pressure injuries may be difficult to detect in patients/residents with darkly pigmented or darker skin tones. Changes in skin color or redness may not be easily recognized and differ from surrounding skin areas (see paragraphs 20.bb., 20.cc., and 20.dd.).***

n. **Pressure Injury Risk Scale.** A pressure injury risk scale is used to document data collected about a pressure injury risk (see paragraphs 20.i., 20.l., and 20.jj.). An example includes but is not limited to the Braden Scale for Predicting Pressure Sore Risk (Braden Scale), (see paragraphs 20.i. and 20.l.).

o. **Resident Assessment Instrument.** The Resident Assessment Instrument (RAI) is comprised of three components: MDS Version 3.0, The Care Area Assessment process and The RAI Utilization Guidelines. The utilization of all three components is used by CLC staff to gather definitive information on a resident's functional strengths, status, weaknesses and preferences. Also, the complete RAI assessment process, offers guidance on additional assessment after problems have been identified (see paragraph 20.m.).

p. **Skin Assessment, Complete.** The complete skin assessment requires skin inspection, collection and analysis of data obtained from the skin inspection. It provides baseline data from which comparisons can be adjusted to ascertain any changes (see paragraph 20.o.). Skin assessment includes visual inspection of all skin and palpation to assess temperature, textures and additional assessment parameters. Skin assessment may be performed by the Registered Nurse, Provider (for example Advanced Practice Registered Nurse, Physician Assistant, Physician, Podiatrist), or trained healthcare professionals such as (for example Certified Wound Specialists, Physical Therapists) (see paragraph 20.o.).

q. **Skin Inspection.** Skin inspection encompasses data collection related to skin changes based on visual inspection of all skin and is completed at admission and routinely. Skin inspection includes a report of the overall skin condition, skin color, texture and wound. Skin inspection can be performed by trained health care staff (for example licensed practical nurse, physical therapy assistant, certified nursing assistants, health technician), or Patient/Resident or home caregivers. Skin inspections are conducted to identify redness or breaks in the skin and abnormal findings are communicated to Registered Nurses or Providers (for example Advanced Practice Registered Nurse, Physician Assistant, Physician, Podiatrist) for further assessment and monitoring (see paragraph 20.o.).

r. **Significant Weight Change.** Significant weight change includes weight loss of 5 percent in 1 month; 7.5 percent in 3 months; 10 percent in 6 months; or 20 percent in 1 year, or weight gain to a BMI greater than or equal to 40 (see paragraph 20.x.).

s. **Spinal Cord Injury Pressure Monitoring Tool.** The Spinal Cord Injury Pressure Monitoring Tool (SCI-PUMT) is an evidence-informed validated tool, for measuring pressure injury healing in a SCI Patient population (see paragraph 20.jj.).

t. **Unavoidable Pressure Injury.** An unavoidable pressure injury is a pressure injury that develops even though the provider has evaluated the individual's clinical condition and pressure injury risk factors; defined and implemented interventions that are consistent with individual needs, goals, and recognized standards of practice; monitored and evaluated the impact of the interventions; and revised the approaches as appropriate (see paragraph 20.k., 20.p., and 20.hh.). The injury can present as intact skin or an open ulcer and may be painful. The injury occurs as a result of intense and/or prolonged pressure, or pressure in combination with shear. The tolerance of soft tissue for pressure and shear may be affected by microclimate, nutrition, perfusion, co-morbidities, and condition of the soft tissue.

u. **Utilization Guidelines.** The Utilization Guidelines provide instructions for when and how to use the RAI. These include instructions for completion of the RAI as well as structured frameworks for synthesizing MDS and other clinical information (see paragraph 20.m.).

#### 4. POLICY

It is VHA policy to establish and provide evidence-informed practice for the prevention and management/treatment of pressure injuries.

#### 5. OBJECTIVES

a. This directive identifies basic requirements for interprofessional approaches to pressure injury prevention and management to include assessment, reassessment, provision of care, and documentation. These requirements reflect evidenced-informed guidelines (see paragraphs 20.d., 20.bb., 20.cc., and 20.dd.) and are relevant in all areas of clinical practice, to include: acute care, inpatient mental health, SCI inpatient/outpatient, CLCs, HBPC, and outpatient primary care. Pressure injury assessment, prevention, monitoring, and Patient/Resident/PSP education are an interprofessional responsibility. Collaborative assessment and treatment planning with the Patient/Resident and the Patient's/Resident's designated family member(s), surrogate(s), or authorized decision makers is essential and needs to accommodate wishes. Additional requirements may be added to reflect specific care settings, Patient/Resident populations, or VA medical facility needs.

b. This directive is designed to outline a standardized approach for:

(1) Developing a system-wide program, led by the VA medical facility's IPIC to identify Patients/Residents at risk of developing pressure injuries, and the specific factors placing them at risk;

(2) Completing a skin assessment:

(a) Conducting a skin inspection and

(b) Using a validated Pressure Injury Risk Scale (for example Braden Scale or SCI-validated risk assessment) to target prevention measures (see paragraphs 20.i., 20.l., and 20.jj.).

(3) Providing procedures for documenting the results of the complete skin assessment, including the individualized care plan; and

(4) Providing proper procedure for notification of Patients/Residents identified at risk of developing pressure injuries.

## 6. RESPONSIBILITIES

a. **Under Secretary for Health.** The Under Secretary for Health is responsible for ensuring:

- (1) Overall VHA compliance with this directive.
- (2) A process is in place to evaluate program implementation and its effectiveness.

b. **Deputy Under Secretary for Health for Policy and Services.** The Deputy Under Secretary for Health for Policy and Services is responsible for ensuring collaboration with the Deputy Under Secretary for Health for Operations and Management and the Deputy Under Secretary for Health for Organizational Excellence to support monitoring, reporting, and evaluation of the impact of this directive as guided by the Office of Nursing Services (ONS).

c. **Deputy Under Secretary for Health for Operations and Management.** The Deputy Under Secretary for Health for Operations and Management is responsible for:

(1) Facilitating consistent compliance across Veterans Integrated Services Network (VISNs) with the prevention and management of pressure injuries as prescribed in this directive.

(2) Distributing communications pertaining to implementation, interpretation, and evaluation of this directive as developed by ONS.

(3) Collaborating with the Deputy Under Secretary for Health for Policy and Services and the Deputy Under Secretary for Health for Organizational Excellence to support monitoring, reporting, and evaluation of the impact of this directive as guided by ONS.

d. **Deputy Under Secretary for Health for Organizational Excellence.** The Deputy Under Secretary for Health for Organizational Excellence is responsible for:

(1) Collaborating with the Deputy Under Secretary for Health for Policy and Services and the Deputy Under Secretary for Health for Operations and Management to support monitoring, reporting, and evaluation of the impact of this directive as guided by the ONS.

(2) Communicating the contents of this directive to each VISN.

(3) Ensuring that each VISN Director has sufficient resources to fulfill the terms of this directive in all VA medical facilities within that VISN.

e. **VHA Office of Patient Care Services.** The Office of Patient Care Services is responsible for:

(1) Promoting implementation of the National Pressure Injury Prevention Program through VA medical facility Chiefs of Staff using an interprofessional approach and

contributing to the assessment, reassessment, prevention, and coding and reporting of pressure injuries.

(2) Promoting the National Pressure Injury Prevention Program through healthcare team engagement and the provision of care (for example Nutrition and Food Service), including the issuance of applicable equipment and wound supplies for prevention and standardized treatment (for example Pharmacy, Prosthetics) across all points of care.

f. **Office of Nursing Services (ONS)**. ONS is responsible for:

(1) Promoting the National Pressure Injury Prevention Program in collaboration with national, VISN, and local VA medical facility leaders and subject matter experts;

(2) Promoting evidence-informed practice for prevention and management of pressure injuries (see paragraph 20.d.); and

(3) Fostering the interprofessional engagement and a culture of safety needed for team-based pressure injury prevention.

g. **Veterans Integrated Services Network (VISN) Director**. Each VISN Director is responsible for:

(1) Ensuring that necessary resources are available to implement and oversee the prevention and management of pressure injuries at all VA medical facilities in the VISN.

(2) Ensuring that all facilities within the VISN participate in oversight activities and measurements prescribed by this directive for the purposes of evaluating the prevention and management of pressure injuries.

(3) Ensuring a plan is implemented for achieving metrics set according to patient/resident population for the purposes of evaluating the effectiveness of this directive.

h. **VA Medical Facility Director**. The VA medical facility Director, or designee, is responsible for oversight of IPIC and providing additional guidance, if needed, for prevention and management of pressure injuries that includes Acute Care, Inpatient Mental Health, SCI inpatient/outpatient, CLC, HBPC, and Outpatient Primary Care, as applicable. The guidance must stipulate that:

(1) The VA medical facility's Interprofessional Pressure Injury Committee (IPIC) continues to develop, implement, monitor, and evaluate the Pressure Injury Prevention Program for opportunities to enhance Patient-centered outcomes;

(2) A Certified Wound Care Specialist (for example Advanced Practice Registered Nurse, Registered Nurse, Physician, Physician Assistant, Physical Therapist, Podiatrist) is a member of the IPIC;

(3) There is a standardized approach for screening, assessment, and prevention of pressure injuries in clinically relevant areas;

(4) All patients/residents receive screening, assessment, and intervention to maintain or treat alterations in skin integrity;

(5) Processes are in place to promote the standardization and availability of equipment and supplies throughout the VA health care system, including when the patient/resident is discharged home with a pressure injury; and

(6) Program data are routinely analyzed by the IPIC and reported to VA medical facility executive leadership at least quarterly to review opportunities and recommendations that emerge from evidence-informed practice.

i. **Chief of Staff (COS)**. The COS is responsible for ensuring systems and/or procedures are in place to safeguard that:

(1) Patients/Residents with pressure injuries receive treatment and services to promote healing and prevent infection. Care decisions are made collaboratively with the Interprofessional Team;

(2) Patients/Residents discharged with a pressure injury receive services that promote safety and wound healing, including timely and appropriate discharge planning, consults for equipment, wound care orders and supplies;

(3) Accurate and timely documentation (see paragraphs 20.c., 20.bb., 20.cc, and 20.dd.) by providers for skin assessment, identification, location and stage of pressure injuries present on admission, wound orders, response to treatment, discharge planning, and discharge instructions are monitored. Pressure injury assessment and staging may be conducted in conjunction with a certified Wound Care Specialist or the Interprofessional Team;

(4) An initial and ongoing training plan for providers is developed and implemented and includes an individualized plan for each role and practice setting; and

(5) A systematic plan for monitoring of compliance and PSI reporting to VA medical facility leadership is developed. Implementation of the monitoring plan may include other VA medical facility services (for example, Quality Management, Business Office) at least quarterly to review opportunities for improvement.

j. **Associate Director for Patient Care Services (ADPCS)**. The ADPCS is responsible for ensuring that:

(1) Patients/Residents with high risk for pressure injuries and existing pressure injures receive timely and appropriate prevention and management interventions to include but not limited to implementation, monitoring, revision, and documentation that are part of an individualized care plan.

(2) Documentation of skin assessments is timely and appropriate (see paragraph 20.c.).

(3) Documentation of findings from using a validated Pressure Injury Risk Scale (for example Braden) is timely and appropriate (see paragraphs 20.i., 20.l., and 20.jj.).

(4) Changes in condition are recognized, evaluated, reported to the provider, and appropriately addressed.

(5) Patients/Residents at high risk for pressure injuries receive timely and appropriate discharge planning including equipment and supplies necessary to continue prevention interventions after discharge to home, hospice, community nursing home, Adult Living Facility, or Adult Foster Home.

(6) Patients/Residents discharged with a pressure injury receive services that promote safety and wound healing, including timely and appropriate discharge planning for wound care and wound supplies are provided at discharge (for example, through pharmacy or delivered to Patients/Residents as needed).

(7) Ongoing performance improvement activities and monitoring of clinical outcomes are conducted. Pressure injury-related data and information are analyzed by the IPIC and reported to VA medical facility executive leaders at least quarterly to review opportunities for improvement.

(8) Initial and ongoing training for nursing staff and the IDT is provided and documented, which includes but is not limited to an individualized plan for each role and practice setting.

(9) Patients/Residents and PSPs receive education materials related to their pressure injuries and are provided written discharge or instructions regarding prevention, treatment, and follow-up.

k. **VA Medical Facility Chief, Quality Management (QM)**. The VA Medical Facility Chief, QM is responsible for:

(1) Providing guidance to facility leadership in the development of a quality monitoring plan for pressure injury prevention and management.

(2) Collaborating with facility leadership and service line managers to collect and analyze pressure injury data used for quality monitoring and accurate reporting.

l. **Interprofessional Pressure Injury Committee (IPIC)**. The IPIC is responsible for:

(1) Developing, implementing, monitoring, and evaluating a VA medical facility Pressure Injury Prevention Program to ensure the most optimal results for patients/residents;

(2) Conducting IPIC meetings at least quarterly, promoting active participation and regular attendance of members, generating meeting minutes, and routinely reporting pressure injury prevention-related data and information to VA medical facility executive leadership. The IPIC membership, comprised of interprofessional care team members may include the Certified Wound Care Specialist, Providers (for example Advanced Practice Registered Nurse, Physician, Podiatrist, Physician Assistant), and trained clinical staff (for example Registered Nurse, Physical Therapist) who may serve as Committee Chair. Other IPIC healthcare professionals may include the Registered Dietitian Nutritionist, Social Worker, Physical Medicine and Rehabilitation Therapist, SCI Therapist, Clinical Pharmacist, Clinical Applications Coordinator (CAC), and representatives from Logistics, Quality Management, Radiology, Operating Room, Emergency Room, Respiratory Therapy, Sterile Processing, Patient Safety, Safe Patient Handling and Mobility, Quality Management, and Ethics Consultants. The IPIC committee members should participate on the committee regularly or on an ad-hoc basis, according to the needs of the Patient/Resident population;

(3) Reviewing and assisting with the development or revision of VA medical facility procedures that impact pressure injury prevention;

(4) Reviewing employee training plans and making recommendations, as needed, to ensure compliance with National Pressure Injury Prevention Program requirements.

(5) Monitoring adherence to the training plan may occur in conjunction with other VA medical facility services (for example, Education Services). Employee education must include plans for initial and ongoing general and role specific education that meets clinical practice area requirements.

(6) General IPIC training will include but is not limited to the following:

(a) Systematic application of a Pressure Injury Risk Assessment Tool; identification of risk; implementation of preventive and therapeutic measures for individuals;

(b) Identification of populations at risk (for example, elderly, end of life); and determination of preventive and therapeutic measures; and

(c) Evaluate clinical practice settings where at risk Patients/Residents may benefit from heightened strategies from the Pressure Injury Prevention Program (for example Blind Rehabilitation, Ambulatory Surgery).

(d) Proper documentation and how to report risk or development of pressure injury, including how to contact a Certified Wound Specialist. Education may also include completion of a Pressure Injury Risk Role-specific training to include the following:

(e) Nursing staff identifies at-risk Patients/Residents, completes the Pressure Injury Risk Assessment (example Braden Scale), conducts a complete skin assessment, initiates prevention measures, and implements management strategies;

(f) Providers, in conjunction with the interprofessional care team develops and implements the care plan;

(g) The Registered Dietitian Nutritionist (RDN) performs a nutritional assessment, develops a nutritional care plan, and monitors and evaluates the Patient's/Resident's nutritional goals;

(h) The Clinical Pharmacist assists with analysis of the medication profile, parenteral nutrition formulation, and product availability; and

(i) Rehabilitation and SCI staff recommends strategies to improve mobility and the use of protective and pressure-redistributing devices.

(j) Evaluating, monitoring, and analyzing performance improvement activities and for pressure injury-related data and information. Performance improvement activities may occur in conjunction with other VA medical facility services (for example, Quality Management).

(k) Collaborating with Nursing Management to analyze and respond to pressure injury data from pressure injury prevalence studies and other pressure injury data to improve outcomes.

m. **Clinical Staff.** Clinical staffs are required to provide training to Patients/Residents as required in paragraph 7.

## **7. EDUCATION FOR PATIENTS/RESIDENTS AND PERSONAL SUPPORT PERSONS**

a. Patients/Residents at risk for developing a pressure injury or with an existing pressure injury (see paragraph 20.hh.) must be appropriately educated, along with the PSP as indicated to promote active participation in prevention and treatment decisions and care.

b. Determine the Patient's/Resident's and PSP's desire to learn and learning comprehension;

c. Provide education to include but not limited to the following:

(1) Principles of pressure injury prevention and management.

(2) Description of pressure injury, risk factors, and routine skin inspection;

(3) Appropriate nutrition, hydration, mobility, position changes, pressure redistribution and relief, avoidance of pressure injuries from medical devices, as well as preventive skin care, and pressure injury management;

(4) Identification of hospital or community resources that may be used to obtain supplies and follow-up care; and

d. Document the education given, and the responses to instructions (for example teach-back).

**NOTE:** For additional information on requirements for clinical staff education and training, please review paragraph 6.a-k.

## 8. CARE PLANNING

Individual roles and the interprofessional care team contribute to care planning. Care planning actions for prevention and management of pressure injuries include:

a. Using evidenced-informed practice (see paragraph 20.b.) to inform the development, implementation, and evaluation of the care plan;

b. Identifying risk factors that increase the Patient's/Resident's potential for pressure injury development (see paragraph 20.hh.) and determining whether and to what extent the identified risk factors can be mitigated, stabilized, or eliminated;

c. Assessing nutritional factors which may decrease risk of occurrences and increased pressure injury healing. **NOTE:** Developing a nutritional plan is essential for any Patient/Resident identified as high risk for pressure injuries;

d. Assessing the need for pressure redistribution, support surfaces or devices by matching a device's potential therapeutic benefit with the Patient's/Resident's specific situation (see paragraph 20.bb.);

e. Identifying the educational needs specific to each Patient's/Resident's care plan; and

f. Documenting each Patient's/Resident's care planning progress, evaluation, and revisions. **NOTE:** Using standardized VA medical facility templates may be beneficial.

## 9. PROVISION OF CARE

a. The VA medical facility Pressure Injury Prevention and Management Program focuses on identifying patients/residents at risk of skin breakdown, preventing avoidable pressure injuries, and managing both avoidable and unavoidable pressure injuries. Documentation of these activities is essential. Basic documentation requirements by all clinical staff involved in addressing one or more aspects of these activities includes documentation in the electronic health record (see paragraph 20.c.):

(1) Visualizing the skin (skin inspection);

(2) Conducting the complete skin assessment, head to toe;

b. The Registered Nurse, Provider, or other appropriate staff conduct the complete skin assessment to identify alterations in skin integrity. The skin assessment is performed if the Patient/Resident and/or PSP report the presence of a current pressure

injury or a history of pressure injury, or the patient/resident is identified at risk for pressure injury development. Not all alterations in skin integrity are pressure injuries. Although pressure injuries may occur anywhere there is sustained pressure, they most commonly occur on the torso and lower body, particularly over bony prominences and under medical devices. The most common locations include: the sacrum, heels, ischial tuberosities, and trochanters (see paragraph 20.j., and 20.bb.). In addition to overt pressure injuries, the skin inspection may be used to identify signs that deep tissue damage (for example, deep tissue pressure injuries) has already occurred and to anticipate the evolution of additional tissue loss. Upon discovery, the provider must document all alterations in skin integrity and pressure injuries, describing any alteration in skin integrity, including moisture associated skin dermatitis (MASD) and incontinence associated dermatitis (IAD) (see paragraphs 20.g., 20.h., and 20.aa.), especially over any bony prominence. Upon identification of a pressure injury, the following must be documented (see paragraph 20.j.):

(1) Location;

(2) Stage (see paragraphs 20.g., and 20.aa.). **NOTE:** *Determination of stage cannot be made until the deepest anatomic layer is visible;*

(3) Size (centimeter [cm]) including length, width, and depth;

(4) Wound characteristics:

(a) Undermining;

(b) Tunneling; and

(c) Sinus tract.

(5) Wound bed tissue types:

(a) Necrotic, either:

1 Eschar, or

2 Slough.

(b) Granulation, and/or

(c) Epithelialization.

(6) Drainage amount (for example, none, scant, moderate, large) and characteristics (for example, serous, serosanguinous, frank blood, or purulent).

(7) Malodor.

(8) Surrounding skin, to include:

- (a) Erythema;
- (b) Other discoloration;
- (c) Induration (hardness);
- (d) Maceration;
- (e) Crepitus (crackling, crunchy);
- (f) Fluctuance (wave-like motion of fluid upon palpation);
- (g) Edema;
- (h) Warmth.
- (9) Presence of medical device;
- (10) Improvement or deterioration as determined by a Certified Wound Specialist;  
and
- (11) Treatment changes

c. Completing a Pressure Injury Risk Assessment Tool (for example, Braden Scale). A Pressure Injury Risk tool identifies risk factors that are modifiable or potentially modifiable by implementing risk factor-specific strategies. Risk factors that cannot be modified or eliminated require acknowledgement. Use the Braden Scale (see paragraphs 20.i., and 20.l.) to determine risk in all clinical settings, unless otherwise specified by the VA medical facility or unit.

d. Identifying other factors that place the Patient/Resident at risk for developing pressure injuries;

e. Other Risk Factors. Several factors may increase the risk for pressure injuries. For a more detailed list of these factors, (see paragraph 20.hh.);

f. Adjusting Risk Assessment Scores to account for other additional risk factors not accounted for by the risk assessment screening tool (for example, advanced age, severe body deformity/contractures, medications such as chemotherapy, vasopressors, anticoagulants, etc.).

## 10. NUTRITIONAL RECOMMENDATIONS

Global expert consensus (NPUAP, European Pressure Ulcer Advisory Panel (EPUAP), and Pan Pacific Pressure Injury Alliance (PPPIA)) supports nutritional assessment as part of a comprehensive interprofessional approach to prevent pressure injuries. A nutritional assessment must be completed by the RDN; the assessment must identify and treat any nutritional condition which may contribute to the development of pressure injuries or delay healing (see paragraph 20.ee.). For

additional educational materials and information please visit the Medical Nutrition PI Prevention Nutrition Therapy Toolkit at: [https://vaww.infoshare.va.gov/sites/Nutrition/NFS/Clinical\\_Nutrition/PU/Medical%20Nutrition%20Therapy%20Toolkit/Forms/AllItems.aspx](https://vaww.infoshare.va.gov/sites/Nutrition/NFS/Clinical_Nutrition/PU/Medical%20Nutrition%20Therapy%20Toolkit/Forms/AllItems.aspx). **NOTE:** *This is an internal VA Web site that is not available to the public.*

a. **Nutrition Referral.** A nutrition referral is recommended to a RDN for the following circumstances:

(1) Identified as being at risk for pressure injuries, Pressure injury risk assessment indicates greater than mild risk (such as Braden score less than, or equal to 18, and a Braden Nutritional sub-score of 1 or 2).

(2) Existing pressure injury, with newly discovered pressure injury within 24 hours, with worsening of a pre-existing pressure injury, or with a pressure injury not progressing through the normal stages of wound healing.

(3) BMI of less than 18.5 or greater than or equal to 40.

(4) Inadequate oral intake as evidenced by:

(a) Nothing by mouth (NPO) status (does not include enteral/parenteral feedings), or clear liquid diet for more than 5 days and not anticipated to change, and

(b) Unintended weight loss of 5 percent in 1 month, 7.5 percent in 3 months, 10 percent in 6 months, or 20 percent in 1 year.

(c) Chewing or swallowing difficulty is impacting oral intake.

(5) The Patient/Resident is refusing supplementation recommended by the RDN (see paragraph 20.ee.

b. **Biochemical Data.** No single laboratory value can specifically determine a Patient's/Resident's nutritional status. Serum albumin and prealbumin are better indicators of the severity of illness, morbidity, and mortality than of nutritional status see paragraph 20.w., and 20.x.). Laboratory markers should be considered an indication of the Patient's/Resident's overall clinical status and not ordered for determination of nutrition diagnosis (see paragraphs 20.x.).

## 11. DETERMINING RISK FOR PRESSURE INJURIES

Determining risk for pressure injuries is an essential component of the prevention process. Risk determination is based on a combination of clinical judgment, a Patient's/Resident's past history, and findings from a validated pressure ulcer/injury risk assessment or screening tool (such as the Braden Scale) (see paragraphs 20.i., 20.l., and 20.jj.). A patient/resident is considered at risk for a pressure injury if any of the following elements are present:

- a. The patient/resident currently has a pressure injury.
- b. The patient/resident has a history of pressure injury. A Patient/Resident with a history of prior full-thickness (Stage 3 or 4) pressure injury (see paragraph 20.d.), or any wound on a pressure bearing surface remains at risk for future skin breakdown due to the reduced tensile (breaking) strength of scar tissue (see paragraph 20.dd.).
- c. The patient/resident has pressure ulcer risk assessment score indicating a risk of pressure injury (e.g. a total Braden score less than or equal to 18, or identification of other significant risk factors not accounted for by the risk as assessment tool).
- d. There is a change in the patient's/resident's medical condition, including any of the following:
  - (1) Decrease in mobility;
  - (2) Decrease in activity;
  - (3) Development of fecal and/or urinary incontinence;
  - (4) Decrease in appetite and/or weight loss;
  - (5) Immobility due to surgery or other procedure;
  - (6) Unrelieved pain;
  - (7) Change in mental status; and/or
  - (8) Gross physiological change (for example, from stable to unstable).
- e. Patient/Resident and/or PSP chooses not to participate in the preventive care plan (for example, voluntary refusal to eat or to be repositioned) and/or undergo skin inspection.
- f. Presence of a medical device (for example, nasal cannula oxygen, endotracheal tube, splint, positive pressure mask, urinary catheter, etc.). As heat and humidity develop between a device and the skin, the microclimate becomes altered resulting in excess moisture and increased pressure injury risk. If the presence of a medical device is implicated in the development of an alteration in skin integrity, resultant wound/pressure injury generally conforms to the pattern or shape of the device. The injury should be staged using the pressure injury staging system. Additionally, medical devices often obscure the skin from visualization, further increasing risk.

**12. ACUTE CARE**

The following is the pressure injury prevention process for acute care:

- a. Upon admission, including observation status, discharge, transfer between units, departments or setting, change in condition, or inter-facility transfer, a skin inspection

and a pressure injury risk assessment must be performed using a validated tool (such as the Braden Scale) for all patients/residents. Note any history of prior pressure injuries.

b. If the patient/resident is unable to tolerate physical contact, the full skin inspection assessments may be delayed, only if necessary. Document delays in assessment and include the rationale for the delay. Continue the full skin inspection on a revised schedule, but continue to complete a pressure injury risk assessment.

c. Revise prevention plan interventions if the pressure injury risk assessment risk level changes (for example scores change from “at risk” to “moderate risk”). For additional information, see paragraph 20.i.

**NOTE:** See Flow Diagram for ACUTE CARE SERVICES for pressure injury prevention process (see paragraph 20.q.).

### 13. INPATIENT MENTAL HEALTH

If a patient/resident has a pressure injury, is at risk for a pressure injury or not at risk for a pressure injury, adhere to the following procedure: See Flow Diagram for INPATIENT MENTAL HEALTH for pressure injury prevention process (see paragraph 20.s.).

### 14. SPINAL CORD INJURY INJURIES AND DISORDERS (SCI/D)

The following is the pressure injury prevention process for spinal cord injury and disorders.

a. **Review of Systems.** Upon admission, discharge, transfer, or change in condition, perform a skin inspection and obtain a Pressure Injury Risk assessment score using a validated tool (for example, Braden Scale or SCI-PUMT). Document the findings within 24 hours (see paragraph 20.jj.). Note if there is a history of prior pressure injuries.

b. **Pressure Injury Risk Assessment Tools.** Some SCI Centers may choose to use an alternate skin assessment or Pressure Injury Risk Scale that has been validated for use with SCI/D patients/residents. If so, the SCI Center team, in collaboration with the local IPIC, subject matter experts, and VA medical facility leaders may choose to use the alternate validated skin and risk assessment tool. Whichever skin assessment and Pressure Injury Risk Scale is used, the same tool or scale needs to be used for all SCI/D Patients within the same setting and VA medical facility to allow early detection or changes in condition.

(1) Initiate appropriate interventions based on the level of risk. Perform the Pressure Injury Risk Assessment (score) daily for all patients/residents with a newly diagnosed SCI/D. A new injury is described as the first admission after injury and the first admission for rehabilitation.

(2) For patients/residents with long-standing spinal cord injuries, most risk factors are relatively stable over time. The length of stay in the SCI Center may be prolonged; therefore, the Pressure Injury Risk Assessment must be performed daily for the first week and then weekly until discharge, transfer, or change in condition. If support surface on wheelchair or bed or level of activity change, perform daily PI risk assessment for at least one week to assess how the new specialty surface or activity level impact skin.

(3) Include involvement of patients/residents and/or PSP in this process.

c. **Skin Inspection.** Severe pressure injuries are common in the SCI/D population. Careful, frequent inspection and palpation are vital for early detection of pressure injuries. In addition to the usual sites, common areas of increased risk include:

(1) Elbows, heels, and ischial tuberosities due to frequent weight-bearing from support or propping up of body during mobility;

(2) The back of the head or skull, especially in the acute period when a patient/resident may be immobilized in a spine orthosis;

(3) Knees, particularly when the patient/resident lies in a prone position (especially if hip flexion contractures are present); and

(4) Coccyx and sacrum, especially from friction and shearing with seated positions (complicated when incontinence is also present).

d. **Factors That Increase Risk.** Factors that increase risk for pressure injuries include but are not limited to:

(1) Dry skin below the level of neurologic injury;

(2) Sweating from autonomic dysreflexia commonly occurring above the level of injury;

(3) Neurogenic bladder and bowel, increasing the risk for incontinence and weakness of the skin;

(4) Spasticity increases the risk for shearing and frictional forces;

(5) Poor posture; and

(6) Inadequate offloading.

e. **Education.** Teach patient/resident and/or PSP the strategies to decrease risk of pressure injury development to include:

(1) Risk factors for pressure injuries - with special attention to interventions which may reduce modifiable risk factors (smoking cessation, improve nutritional intake, frequent changes in position, moisture management, etc.);

(2) Performing daily skin inspections. Use a long-handled mirror to visualize the skin for each patient/resident with adequate upper limb and hand function (issued by SCI/D staff, as needed);

(3) Offloading, especially during extended periods of time on a bowel chair, shower chair, or a wheelchair;

(4) Pressure mapping, seating assessment, and equipment evaluation by SCI/D staff.

**NOTE:** See Flow Diagram for Spinal Cord Injury and Disorders (see paragraph 20.t.)

## **15. COMMUNITY LIVING CENTER (CLC)**

If a resident has a pressure injury, is at risk for a pressure injury or not at risk for a pressure injury, adhere to the procedure found in Flow Diagram for Summary of Activities for Pressure Injury Prevention in Community Living Centers (CLC) Setting, (see paragraph 20.ii.)

## **16. HOME-BASED PRIMARY CARE (HBPC)**

Procedures for the pressure injury prevention process for HBPC are as follows:

a. During the admission visit to HBPC, perform and document a skin inspection (see paragraph 20.o.) and obtain a Pressure Injury Risk Assessment score using a validated tool (such as the Braden Scale) score (see paragraphs 20.i., 20.l., and 20.jj). Collaboration with the local IPIC, subject matter experts, and VA medical facility leaders is required prior to using an alternate Pressure Injury Risk Assessment Scale. Whichever Pressure Injury Risk Scale is used, the same scale needs to be used for all SCI/D patients/resident within a VA medical facility or specific VA system of care (across settings for consistency) to allow early detection of changes in condition.

b. Whenever the HBPC patient has been hospitalized or experiences a change in condition (especially deterioration in function or mobility), perform a skin inspection and a Pressure Injury Risk Assessment (see paragraphs 20.i., 20.l.; 20.o.; and 20.jj.)

c. If a patient is at risk or has a pressure injury, adhere to the Flow Diagram for Home Based Primary Care, (see paragraph 20.r.).

## **17. OUTPATIENT PRIMARY CARE**

Procedures for the pressure injury prevention process for Outpatient Primary Care are as follows:

a. Many health conditions may be associated with the development of pressure injury in patients receiving care in outpatient settings. The primary risk factors for pressure injury are immobility and limited activity levels. Therefore, consider any patient with a medical device, an impaired ability to reposition or those whose activity is limited to bed or any type of chair as at-risk for a pressure injury (see paragraphs 20.d., 20.aa., and 20.bb.).

b. During the annual outpatient primary care medical evaluation, screen for the presence or risk of pressure injury (e.g. using validated scale risk assessment tool) and document findings. Include screening for:

- (1) Active pressure injury;
- (2) History of pressure injury;
- (3) Bed-confined or wheelchair user status; and
- (4) Requiring assistance with transfers or change in position.
- (5) Presence of a medical device

c. Screening may be performed more frequently than annually according to the patient's condition. Include the following, or similar questions or observations (see paragraph 20.bb.).

(1) Does the patient and/or PSP report the presence of a current pressure injury or a history of pressure injury?

(2) If the patient and/or PSP report the presence of a current pressure injury or a history of pressure injury, the Registered Nurse, provider, or other appropriate staff performs the skin assessment.

(3) Does the patient and/or PSP(s) report the presence of a current pressure injury, or a history of pressure injury related to a medical device (for example, artificial limb, braces, splint, implanted pump, automatic implanted cardioverter-defibrillator, oxygen tubing, indwelling or condom catheter, tracheostomy, feeding tube)?

(4) If the patient and/or PSP report the presence of a medical device, perform a skin inspection. If the patient and/or PSP report a medical device related pressure injury, the Registered Nurse, provider, or other appropriate staff performs a focused skin assessment. Additionally, the staff will provide education to the patient and/or PSP about the prevention of pressure injury and, the importance of skin inspection, including the skin under the medical devices (for example, nasal cannula, endotracheal tube, splint, positive pressure mask, condom catheter, artificial limb, braces, splint), and intervention if a pressure injury occurs.

d. Is the patient bed-confined or a wheelchair-user? If the patient is bed-confined, a wheelchair user, or requires assistance to transfer or change position, consider

performing a skin assessment more frequently than annually, and provide education on the prevention of pressure injury.

e. Does the patient require assistance to transfer or to change position?

(1) Perform a complete skin assessment if the patient develops a significant decline in condition or functional status that increases the risk of pressure injury.

(2) Document all findings from above assessment questions. Document risk assessment (e.g. Braden Scale), the skin assessment of a new or existing pressure injury. Initiate and document the new or revised prevention or treatment plan that reflects the patient's current condition. The Provider may request a consult by a Wound Specialist or other service(s) (for example RDN, Physical Therapy, Home Care, Prosthetics, Wheelchair Clinic) as appropriate. Provide and document pressure injury prevention education to the patient and/or PSP.

## 18. TRAINING

There are no formal training requirements associated with this directive.

## 19. RECORDS MANAGEMENT

All records regardless of format (e.g., paper, electronic, electronic systems) created by this directive shall be managed per the National Archives and Records Administration (NARA) approved records schedules found in VA Records Control Schedule 10-1. Questions regarding any aspect of records management should be addressed to the appropriate Records Manager or Records Liaison.

## 20. REFERENCES

a. VHA Handbook 1004.01, Informed Consent for Clinical Treatments and Procedures, dated August 14, 2009.

b. VHA Handbook 1004.02, Advance Care Planning and Management of Advance Directives, dated December 24, 2013.

c. VHA Handbook 1907.01, Health Information Management and Health Records, dated March 19, 2015.

d. Agency for Healthcare Research and Quality. (2014). *What are the best practices in pressure ulcer prevention that we want to use?* Retrieved from <https://www.ahrq.gov/professionals/systems/hospital/pressureulcertoolkit/putool3.html>

e. Agency for Healthcare Research and Quality. (2017). *Patient safety indicator 03 (PSI) pressure ulcer rate.* Retrieved from: [http://www.qualityindicators.ahrq.gov/Downloads/Modules/PSI/V60-ICD09/TechSpecs/PSI\\_03\\_Pressure\\_Ulcer\\_Rate.pdf](http://www.qualityindicators.ahrq.gov/Downloads/Modules/PSI/V60-ICD09/TechSpecs/PSI_03_Pressure_Ulcer_Rate.pdf).

f. American Geriatrics Society Ethics Committee and Clinical Practice and Models of Care Committee. (2014). American Geriatrics Society feeding tubes in advanced dementia position statement. Retrieved from:

<http://onlinelibrary.wiley.com/doi/10.1111/jgs.12924/full>.

g. Ayello, E. (2014). Pressure Ulcer Staging. Retrieved from

<https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/IRF-Quality-Reporting/Downloads/IRF-QRP-Training-%E2%80%93-PrU-Staging-May-12-2014-.pdf>.

h. Beeckman, D., Schoonhoven, L., Fletcher, J., Furtado, K., Heyman, H., Paquay, L. Dalfloor, T. (2010) Pressure ulcer and incontinence-associated dermatitis: effectiveness of the pressure ulcer classification education tool on classification by nurses. *Quality Safety Health Care*, 19 (5).

i. Bergstrom N., & Braden, B. (1992). A prospective study of pressure sore risk among institutionalized elderly. Retrieved from:

<http://onlinelibrary.wiley.com/doi/10.1111/j.1532-5415.1992.tb01845.x/epdf>.

j. Black J. M., Baharestani, M., Black, S., Cavazos, J., Conner-Kerr, T. Edsberg, L., Schultz, G. (2010). An overview of tissue types in pressure ulcers: A consensus panel recommendation. *Ostomy Wound Manage*, 56(4), 28-44.

k. Black, J. M., Edsberg, L.E., Baharestani, M. M., Langemo, D., Goldberg, M., McNichol, L., Cuddigan, J., & the National Pressure Ulcer Advisory Panel. (2011). Pressure ulcers: Avoidable or unavoidable? Results of the National Pressure Ulcer Advisory Panel Consensus Conference. *Ostomy Wound Management*, 57(2), 24-37. Retrieved from <http://www.npuap.org/wp-content/uploads/2012/01/A-UA-pr-ul1.pdf>.

l. Braden Scale for Predicting Pressure Sore Risk;

[https://vaww.va.gov/nursing/docs/braden\\_scale\\_for\\_predicting\\_pressure\\_sore\\_risk.pdf](https://vaww.va.gov/nursing/docs/braden_scale_for_predicting_pressure_sore_risk.pdf).

**NOTE:** This is an internal VA Web site that is not available to the public.

m. Center for Medicare & Medicaid Services (2016). Long Term Care Facility Residents Assessment Instrument 3.0 User's Manual. Retrieved from

<https://downloads.cms.gov/files/MDS-30-RAI-Manual-V114-October-2016.pdf>.

n. Department of Veterans Affairs Office of the Inspector General (VA OIG). (2015). *Combined Assessment Program Summary Report Evaluation of Pressure Ulcer Prevention and Management at Veterans Administration Facilities*, February 3, 2015. Retrieved from

<https://www.va.gov/oig/pubs/VAOIG-14-05132-90.pdf>.

o. Doughty, D. B., & McNichol, L. L. (2016). *Wound, Ostomy and Continence Nurses Society Core Curriculum* Wound management 1<sup>st</sup> Edition: Wolters Kluwer, Philadelphia, Pennsylvania.

p. Edsberg, L. E., Langemo, D., Baharestani, M. M., Posthauer, M. E., & Goldberg, M. (2014). Unavoidable pressure injury: State of the science and consensus

outcomes. Retrieved from

[https://journals.lww.com/jwocnonline/Fulltext/2014/07000/Unavoidable\\_Pressure\\_Injury\\_State\\_of\\_the\\_Science.6.aspx](https://journals.lww.com/jwocnonline/Fulltext/2014/07000/Unavoidable_Pressure_Injury_State_of_the_Science.6.aspx)

q. Flow Diagram for Acute Pressure Injuries.

<https://vaww.va.gov/nursing/docs/pup/FlowDiagramAcutePI.pdf>. **NOTE:** This is an internal VA Web site that is not available to the public.

r. Flow Diagram for Home-Based Primary Care (HBPC) Pressure Injury Prevention.

<https://vaww.va.gov/nursing/docs/pup/FlowDiagramHBPC.pdf>. **NOTE:** This is an internal VA Web site that is not available to the public.

s. Flow Diagram for Inpatient Mental Health.

<https://vaww.va.gov/nursing/docs/pup/FlowDiagramInPtMH.pdf>. **NOTE:** This is an internal VA Web site that is not available to the public.

t. Flow Diagram for Spinal Cord Injury and Disorder Units (SCID).

<https://vaww.va.gov/nursing/docs/pup/FlowDiagramSCID.pdf>. **NOTE:** This is an internal VA Web site that is not available to the public.

u. Hirshberg, J., Rees, R. S., Marchant, B., & Dean, S. (2000). Osteomyelitis related to pressure ulcers: The cost of neglect. *Advances in Skin & Wound Care*, 13(1), 25-29.

v. Langema, D.K. & Black, J. (2010). Pressure ulcers in individuals receiving palliative care: A National Pressure Ulcer Advisory Panel white paper. Retrieved from [http://www.npuap.org/wp-content/uploads/2012/01/Pressure\\_Ulcers\\_in\\_Individuals\\_Receiving.7.pdf](http://www.npuap.org/wp-content/uploads/2012/01/Pressure_Ulcers_in_Individuals_Receiving.7.pdf).

w. Leser, S. (2013). The 2013 FAO report on dietary protein quality evaluation in human nutrition: Recommendations and implications. Retrieved from: <http://onlinelibrary.wiley.com/doi/10.1111/nbu.12063/epdf>.

x. Litchford, M.D., Dorner, G., Posthauer, M.E. (2014). Malnutrition as a Precursor of Pressure Ulcers. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3899999/>.

y. Lyder, C. H., Wang, Y., Metersky, M., Curry, M., Kilman, R., Verzier, N. R., & Hunt, D. R. (2012). Hospital-acquired pressure ulcers: Results from the national Medicare patient safety monitoring system study. Retrieved from: <http://onlinelibrary.wiley.com/doi/10.1111/j.1532-5415.2012.04106.x/epdf>.

z. National Pressure Ulcer Advisory Panel. (2008). Mucosal Pressure Ulcer: NPUAP Position Statement. Retrieved from [www.npuap.org/wp-content/uploads/2012/01/Mucosal\\_Pressure\\_Ulcer\\_Position\\_Statement\\_final.pdf](http://www.npuap.org/wp-content/uploads/2012/01/Mucosal_Pressure_Ulcer_Position_Statement_final.pdf)

aa. National Pressure Injury Advisory Panel (NPUAP). (April 13, 2016). Press releases. Retrieved from <http://www.npuap.org/national-pressure-ulcer-advisory-panel->

[npuap-announces-a-change-in-terminology-from-pressure-ulcer-to-pressure-injury-and-updates-the-stages-of-pressure-injury/](http://www.npuap.org/wp-content/uploads/2014/08/Updated-10-16-14-Quick-Reference-Guide-DIGITAL-NPUAP-EPUAP-PPPIA-16Oct2014.pdf).

bb. National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan Pacific Pressure Injury Alliance. (2014a). *Prevention and Treatment of Pressure Ulcers: Quick Reference Guide*. Emily Haesler (Ed.). Cambridge Media: Perth, Australia; Retrieved from <http://www.npuap.org/wp-content/uploads/2014/08/Updated-10-16-14-Quick-Reference-Guide-DIGITAL-NPUAP-EPUAP-PPPIA-16Oct2014.pdf>.

cc. National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan Pacific Pressure Injury Alliance. *Prevention and Treatment of Pressure Ulcers: Quick Reference Guide* (2014b). <http://www.npuap.org/wp-content/uploads/2014/08/Quick-Reference-Guide-DIGITAL-NPUAP-EPUAP-PPPIA-Jan2016.pdf>

dd. NDNQI. (2017). Pressure Injury Training®. Version 5 Module. Retrieved from <https://members.nursingquality.org/NDNQIPressureUlcerTraining/>

ee. Nutritional Recommendation for Pressure Injury Prevention and Management. [https://vaww.infoshare.va.gov/sites/Nutrition/NFS/Clinical\\_Nutrition/PU/Medical%20Nutrition%20Therapy%20Toolkit/Forms/AllItems.aspx](https://vaww.infoshare.va.gov/sites/Nutrition/NFS/Clinical_Nutrition/PU/Medical%20Nutrition%20Therapy%20Toolkit/Forms/AllItems.aspx). **NOTE:** *This is an internal VA Web site that is not available to the public.*

ff. Powell-Cope, G., Rugs, D., Toyinbo, P., Chavez, M., Duffy, A., Besterman-Dahan, K. (2014). Linking organizational characteristics of pressure ulcer prevention to rates of hospital acquired PrU's VA-wide. *VA Nursing Innovations Center for Evaluation (NICE)*, James A. Haley Veterans' Hospital. Available upon request to the first author.

gg. Redelings, M. D., Lee, N. E., & Sorvool, F. (2005). Pressure ulcers: More lethal than we thought. Retrieved from [https://journals.lww.com/aswcjournal/Fulltext/2005/09000/Pressure\\_Ulcers\\_More\\_Lethal\\_Than\\_We\\_Thought.10.aspx](https://journals.lww.com/aswcjournal/Fulltext/2005/09000/Pressure_Ulcers_More_Lethal_Than_We_Thought.10.aspx).

hh. Risk Factors That Increase Risk for Developing Pressure Injuries. <https://vaww.va.gov/nursing/docs/pup/PressureInjuryRiskFactors.pdf>. **NOTE:** *This is an internal VA Web site that is not available to the public.*

ii. Summary of Activities for Pressure Injury Prevention in Community Living Centers (CLC) Setting. <https://vaww.va.gov/nursing/docs/pup/PIPreventionCLC.pdf>. **NOTE:** *This is an internal VA Web site that is not available to the public.*

jj. Thomason SS, Luther SL, Powell-Cope GM, Harrow JJ, Palacios P. Validity and reliability of a pressure ulcer monitoring tool for persons with spinal cord impairment. *J Spinal Cord Med*. 2014 May;37(3):317-27. PMID: 24621044.

kk. White, J. V., Guenter, P., Jensen G., Malone A., Schofield, M.; the Academy Malnutrition Work Group; the A.S.P.E.N. Malnutrition Task Force; and the A.S.P.E.N

Board of Directors. (2012). Consensus Statement: Academy of Nutrition and Dietetics and American Society for Parenteral and Enteral Nutrition: Characteristics recommended for the identification and documentation of adult malnutrition (undernutrition). Retrieved from <http://journals.sagepub.com/doi/pdf/10.1177/0148607112440285>.

II. Zubkoff, L., Neily, J., King, B., Morgan, S., Young-Xu, Y., Boar, S., & Mills, P. (2016). Preventing pressure ulcers in the Veterans Health Administration using a virtual breakthrough series collaborative. *Journal of Nursing Care Quality*, 1-8. doi:10.1097/ncq.0000000000000242.