

2015

# Pressure Ulcer Assessment and Documentation

Cynthia Ruggiero

Rhode Island College, [cruggiero\\_3941@email.ric.edu](mailto:cruggiero_3941@email.ric.edu)

Follow this and additional works at: <https://digitalcommons.ric.edu/etd>

 Part of the [Nursing Commons](#)

---

## Recommended Citation

Ruggiero, Cynthia, "Pressure Ulcer Assessment and Documentation" (2015). *Master's Theses, Dissertations, Graduate Research and Major Papers Overview*. 127.

<https://digitalcommons.ric.edu/etd/127>

This Major Paper is brought to you for free and open access by the Master's Theses, Dissertations, Graduate Research and Major Papers at Digital Commons @ RIC. It has been accepted for inclusion in Master's Theses, Dissertations, Graduate Research and Major Papers Overview by an authorized administrator of Digital Commons @ RIC. For more information, please contact [digitalcommons@ric.edu](mailto:digitalcommons@ric.edu).

PRESSURE ULCER ASSESSMENT AND DOCUMENTATION:  
DEVELOPMENT OF A POCKET GUIDE

by

Cynthia Ruggiero BS

A Major Paper Submitted In Partial Fulfillment

of the Requirements For the Degree of

Master of Science in Nursing

in

The School of Nursing

Rhode Island College

2015

## Abstract

Accurate assessment and documentation of skin is an important nursing activity yet the task of identifying and documenting wounds can be difficult. New regulations from the Centers for Medicare and Medicaid dictate that hospitals will not receive payment for the treatment of stage III or stage IV hospital-acquired pressure ulcers. Literature supports that accurate assessment and documentation of a pressure ulcer is important to the care of the patient, to provide legal documentation, and for reimbursement. The purpose of this project was to develop and implement a pressure ulcer assessment and documentation pocket guide. The development of the pocket guide was guided by Malcolm Knowles' adult learning theory and developed by evaluating different pocket guides, the NPUAP website, and evidence based literature. The project employed an intervention, post intervention evaluation design. The sample was drawn from nurse members of the Pressure Ulcer Prevalence Committee at the Miriam Hospital in Providence, RI. Nurse members of the committee who agreed to participate utilized the Pressure Ulcer Assessment and Documentation Pocket Guide to assess patients during the monthly meeting and then completed an evaluation. The guide was evaluated as being valuable in assessing and documenting pressure ulcers and it was recommended for distribution to staff nurses. Use of the tool has the potential to improve assessment, identification, and documentation of pressure ulcers. Implications for advanced practice are discussed.

## Acknowledgements

I would like to take this opportunity to acknowledge the following individuals. This project would have never been completed without their support and guidance. If I have neglected to mention someone who had assisted me, I am sorry and apologize in advance.

First I would like to thank Miriam Hospital's Administration, including Maria Ducharme and Angela Creta. Without their approval of the project, it would not have happened. I would also like to thank Deb Bartula, WOCN and Erin DellaGrotta for their guidance and allowing the project to be presented to the Pressure Ulcer Prevalence Committee. I would also like to thank the members of the Pressure Ulcer Prevalence Committee who allowed the presentation and evaluation of this project.

I would like to thank my first reader, Cindy Padula, whose guidance and assistance was of utmost importance along the path to my Master's Degree. I would like to also thank Professor Patricia Calvert, my second reader, and Patricia Karwan, who was my third and final reader.

In conclusion, I would like to thank the most important person in my life, my husband, Mike. Without him by my side, I may never have accomplished my dream of earning the Master's degree.

## Table of Contents

Background/Statement of Problem.....	1
Review and Critique of Key Literature.....	3
Theoretical Framework.....	14
Methodology.....	16
Results.....	22
Summary and Conclusions.....	24
Recommendations and Implications.....	28
References.....	31
Appendices.....	36

## Development of a Pressure Ulcer Assessment and Documentation Pocket Guide

### **Background/Statement of the Problem**

Accurate assessment and documentation of skin is an important nursing activity. Yet identification and documentation of wounds can be a difficult task. The ability of the average, non-expert clinician to correctly stage pressure ulcers is poor, ranging from 23% to 58% (Young, Shen, Estocado, & Landers, 2012). The condition of the wound should be assessed on the basis of the following factors: the size and depth of the lesion; the presence of granulation tissue; fibrin debris; necrosis; wound exudate; and the edge of the wound. Accurate assessment must be followed by accurate documentation; however, wounds are often inadequately documented. Misclassification of pressure ulcer stage as well as inappropriate classification of other wounds as pressure ulcers not only negatively impact care but may also have significant economic and regulatory implications (Bergquist-Beringer, Gajewski, Dunton, & Klaus, 2011).

Although pressure ulcer development has been an important nursing concern, hospital-acquired pressure ulcer (HAPU) development has more recently become a topic of special interest because of Centers for Medicare & Medicaid Services guidelines regarding reimbursement. Hospital-acquired Stage III and IV pressure ulcers are identified as “never events” by the Centers for Medicare and Medicaid Services (CMS), which no longer reimburse hospitals for the costs of caring for those HAPUs (Cherry, Moss, Maloney, & Midyette, 2012). Additionally, Medicare provides an additional payment, a Medicare Severity-Diagnosis Related Group (MS-DRG), for the care of more severe pressure ulcers that were present on admission. It is important to assess a

patient's skin and the risk for developing pressure ulcers on admission to an acute care setting as they are automatically at an increased risk for developing pressure ulcers. This has become even more important as the MS-DRG payment is not allowed for HAPUs (Young, et al., 2012).

In the current health care regulatory and financial environment, there is a significant incentive to implement strategies for PU prevention that are individualized, evidence-based, and cost-effective (Tescher, Branda, Byrne, & Naessens, 2012). The development of pressure ulcers can interfere with functional recovery, may be complicated by pain and infection, and can contribute to excesses in hospital length of stay (Bergquist-Beringer et al., 2011). Risk assessment begins with inspecting the skin. Performing an accurate, comprehensive assessment of a patient's skin, identifying pressure ulcers correctly, and documenting those findings accurately impacts the care of the patient and the costs of the care to the hospital. Accurate wound documentation is necessary for legal purposes not only in the present time, but in potential future litigation (Fife et al., 2010). Yet, nurses and other professionals are challenged to conduct accurate assessment and documentation. Providing nurses with an easy to use, readily accessible pressure ulcer assessment and documentation pocket guide could aid in identifying, staging, and documenting of pressure ulcers.

Next, the review of literature will be presented.

## **Review and Critique of Key Literature**

A comprehensive literature review was completed, including the years 2008 to 2014, and utilizing search engines CINAHL, CINAHL PLUS, Ovid, and Google Scholar. The following key words were searched: skin assessment; pressure ulcers; hospital acquired pressure ulcers; pressure ulcers and definition and staging; pressure ulcers and prevention and treatment; pressure ulcers and assessment; wound documentation. This literature review will provide an overview of the following areas: definition, risk factors, and staging; impact; reimbursement; documentation; skin assessment; prevention and treatment; challenges with assessments.

### **Definition, Risk Factors, and Staging**

Pressure ulcers are also known as pressure sores, decubitus ulcers, or skin failure (Lee, Lin, Mills, & Kuo, 2012). The first well-documented pressure ulcer classification system was proposed by Shea in 1975 and differentiated into five categories (Kottner, Raeder, Halfens, & Dassen, 2009b). Pressure ulcers are defined by The National Pressure Ulcer Advisory Panel (2007) as an area of localized injury of the skin and/or underlying tissue caused by external pressure alone or in combination with shearing and/or friction. Though pressure ulcers are seen most often in high-risk populations such as those with physical impairments and the elderly, they can occur in individuals of any age, gender or race (Reddy, Gill, & Rochon, 2008).

Pressure ulcer formation appears to be multifactorial and influenced by both extrinsic and intrinsic factors (Honaker & Forston, 2011). These extrinsic and intrinsic factors include anemia, immobility, malnutrition, hemodynamic instability, tissue



deformation secondary to prolonged mechanical loading of tissue, ischemia, structural damage, impaired lymphatic function, rigor mortis-type changes in muscle tissue, and alteration in interstitial fluid flow (Honaker & Forston). Critically ill patients who are hemodynamically compromised because of hypotension, shock, or dehydration are at risk for deep tissue injury (Allen et al., 2012). Other risk factors include urinary or fecal incontinence, high-dose vasopressor therapy (Allen et al.), oxygen tubing, intravenous catheters, and pulse oximeters (Whiteing, 2009). Underweight status, low albumin levels, hip fracture, advanced age, and terminal illness are found to increase pressure ulcer risk in critically ill patients (Mackintosh, Gwilliam, & Williams, 2014).

There are different classifications of pressure ulcers and these classifications are based on extent of tissue injury. When the National Pressure Ulcer Advisory Plan updated the pressure ulcer staging system, the new category of suspected deep tissue injury was added (Honaker & Forston, 2011). A deep tissue injury (DTI) is a localized area of discoloration, usually maroon or purple, that represents deep tissue injury under intact skin (Alderden, Whitney, Taylor, & Zaratkiewicz, 2011). The area of tissue may be painful, firm, mushy, boggy, warmer or cooler as compared with adjacent tissue (Aoi et al., 2009). Stage I pressure ulcers are characterized by intact skin with nonblanching erythema of a localized area. Stage II includes partial-thickness loss of dermis with a red-pink wound bed or an intact or ruptured blister. In Stage III, there is a full-thickness tissue loss with damage to subcutaneous tissue. Finally, Stage IV includes full-thickness tissue loss with exposed bone, tendon, or muscle. Slough or eschar may be on some of the wound bed and there may be undermining or tunneling. The last stage is called

unstageable and is full-thickness tissue loss which is covered by slough and/or eschar (Cherry et al., 2012). These unstageable pressure ulcers cannot be staged because it is unknown how deep the tissue damage is under the slough and/or eschar.

### **Impact**

The cost of treating a single full-thickness pressure ulcer (stage III, IV or unstageable) can be as much as \$70,000, and United States (US) expenditures for treating pressure ulcers have been estimated at \$11 billion per year (Reddy et al., 2008).

Pressure ulcers are not only costly to treat, but they can cause pain, diminish a patient's quality of life, increase morbidity and mortality, and prolong a patient's hospital stay (Bergquist-Beringer et al., 2011). Deep tissue injuries may progress to stage III or stage IV pressure ulcers, even when appropriate preventative interventions are taken, and are considered hospital-acquired when they progress to full thickness wounds (Allen et al., 2012). Deep tissue injuries that progress to stage III or stage IV pressure ulcers are an indicator of poor quality of care for the facility and the costs required to care for the pressure ulcer is not reimbursed by Medicare (Allen et al.).

### **Reimbursement**

Medicare has been faced with the financial problem that by 2017, Part A trust fund will potentially be depleted (Fife et al., 2010). Projected Medicare expenditures in 2009 were \$486 billion, which increased attention to pressure ulcers (Fife et al.).

Although pressure ulcer development has been an important nursing concern, HAPU development has more recently become a topic of special interest because of CMS guidelines regarding reimbursement. Hospital-acquired Stage III and IV pressure ulcers

are identified as “never events” by CMS, which no longer reimburses hospitals for the costs of caring for those HAPUs (Cherry et al., 2012). The Centers for Medicare & Medicaid Services made changes to reimbursement policies in 2007 (Mackintosh et al., 2014). These changes withheld payment for the treatment of pressure ulcers acquired during a hospital stay (Mackintosh et al.). According to CMS policy, the admitting provider must provide documentation of any stage III or IV pressure ulcer that is present on admission in order for the hospital to be reimbursed for treatment of those pressure ulcers (Mackintosh et al.). Additionally, Medicare provides an additional payment, a Medicare Severity-Diagnosis Related Group (MS-DRG), for the care of more severe pressure ulcers that were present on admission. With the new regulations from CMS, correct assessment and accurate documentation of pressure ulcers have become a high priority.

### **Pressure Ulcers: Documentation**

Precise identification and classification of pressure ulcers is the basis for accurate communication and documentation. Accurate documentation is also the prerequisite for valid prevalence and incidence rates (Kottner, Dassen, & Lahman, 2009a). For example, incorrect identification of incontinence-associated dermatitis or pressure ulcers has negative implications when reporting outcomes to regulatory agencies such as the CMS (Beinlich & Meehan, 2014). It is the responsibility of all registered nurses (RNs) to document clearly and comprehensively (Whiteing, 2009). Legally, what is not documented was not done (Fife et al., 2010).

A clear description of a pressure ulcer should include site, dimensions, condition of the ulcer margin and surrounding skin, wound appearance, presence of exudate, odor, and correct staging (Whiteing, 2009). Documentation in acute care settings requires daily or more frequent pressure ulcer monitoring (Fife et al., 2010). Healthcare providers need to have on-going education about risk factors, skin assessment, staging, management, and thorough documentation (MacKintosh et al., 2014). MacKintosh et al. reviewed floor nurses' charted skin assessments and found that there was difficulty remembering the different stages of pressure ulcers. The authors suggested that pressure ulcer education for both new graduate nurses and experienced clinicians should be frequent and ongoing. The authors implemented a teaching method that asked participants to associate a pressure ulcer with a particular fruit or vegetable (i.e. an eggplant with a deep tissue injury) instead of memorizing a list of facts. Though nurses were educated in nursing school regarding pressure ulcers, it was found the majority of nurses did not feel that they understood the concepts until they had cared for a patient with a serious pressure ulcer. The preliminary feedback from approximately 150 attendees provided via a written evaluation form indicated that this approach may be effective in teaching nurses to recognize and stage pressure ulcers. Nurses indicated that this type of teaching made it easier to remember the various pressure ulcer stages.

### **Skin assessment**

Pressure ulcers and other skin breakdowns are among the most significant adverse events that compromise a patient's recovery from illness or injury (Gardiner et al., 2008). Skin assessment, documentation, and pressure ulcer risk assessment should be completed

on every patient in an acute care hospital on admission and on a daily basis (Stansby, Avital, Jones, & Marsden, 2014). The skin should be assessed for color changes or discoloration, variations in heat, firmness, moisture secondary to incontinence or edema, or for dry or inflamed skin (Stansby et al.). Nursing staff continue to need accurate methods for identifying patients at risk for developing pressure ulcers (Tescher et al., 2012) and value instruments that are easy to use, reliable, and valid (Arndt & Kelechi, 2014).

There are several pressure ulcer risk assessment scales being used, such as the Norton scale, the RAPS, and the Braden Scale (Aoi et al., 2009). These pressure ulcer classifications scales use a numerical rating score in which certain criteria are given an assigned score to differentiate between different levels of risk (Whiteing, 2009). The Norton scale was one of the first risk assessment scales and was first used in 1987 (Kallman & Lindgren, 2014) and was subsequently modified. Subscales and their respective response formats include: physical condition (good, fair, poor, very bad); mental condition (alert, apathetic, confused, stuporous); activity (ambulates, walks with help, chairbound, bedfast); mobility (full, slightly impaired, very limited, immobile) and incontinence (none, occasional, usually urinary, urinary and fecal) (Kallman & Lindgren, 2014). The modified Norton scale was validated in long-term and orthopedic care areas (Kallman & Lindgren).

In the early 2000s, The RAPS (Risk Assessment Pressure Ulcer Scale) was introduced by the authors (Kallman & Lindgren, 2014). This scale consists of variables from the Norton, modified Norton, and Braden scales (Kallman and Lindgren, 2014).

The RAPS scale includes items related to general physical condition, activity, mobility, moisture, food intake, fluid intake, sensory perception, friction and shear, body temperature, and S-albumin (Kallman & Lindgren). Kallman and Lindgren conducted a study to determine the predictive validity of the Norton Scale, the Modified Norton Scale, The Braden Scale and the RAPS scale. The RAPS scale showed the best balance between sensitivity (77.8%) and specificity (69.9%) at the recommended cut-off level ( $\leq 29$ ). The Braden scale had a sensitivity of 74.5% and a specificity of 73.7% at the recommended cutoff level of  $\leq 18$ . The Norton scale sensitivity was 74.5% and specificity was 70.6% at the recommended cutoff level of  $\leq 16$ . All scales reached an acceptable area under the curve. A multiple logistic regression analysis demonstrated the following variables as significant risk factors for pressure ulcer development: general physical condition ( $P < .001$ ); physical activity ( $P = .029$ ); friction and shear ( $P = 0.36$ ); and moisture ( $P = 0.41$ ) (Kallman & Lindgren).

The Braden scale is a clinically validated tool developed by Barbara Braden and Nancy Bergstrom for assessing pressure ulcer risk (Denby & Rowlands, 2010). This scale consists of several subscales including activity, mobility, nutritional status, sensory perception, moisture, and friction and shear (Kallmann & Lindgren, 2014). Nursing interventions are based on the patient's score on the Braden Scale (Denby & Rowlands, 2010). Using the Braden scale, a total score of 19 to 23 indicates no identified risk of developing a pressure ulcer, 15 to 18 indicates a mild risk of developing a pressure ulcer, 13 to 14 indicates a moderate risk of developing a pressure ulcer, 10 to 12 indicates a high risk of developing a pressure ulcer, and 6 to 9 indicates a very high risk of

developing a pressure ulcer. A total score of 18 or less indicates the need for focused skin assessment and evidence-based interventions (Tescher et al., 2012). It is important not to classify other wounds as a pressure ulcer or misclassify the actual stage of a pressure ulcer as this could have significant economic and regulatory implications (Bergquist-Beringer et al., 2011). In terms of the number of studies and variety of settings that it has been used in, the Braden scale has undergone the most complete validation process (Garcia-Fernandez, F, Pancorbo-Hildago, P, & Agreda, J, (2014).

### **Prevention and treatment**

Pressure ulcers are considered to be an important indicator of the quality of care (Kottner et al., 2009a) and nurses have an indispensable role in the prevention and management of pressure ulcers (Lee et al., 2012). Incentives to implement strategies for pressure ulcer prevention that are individualized, cost-effective, and evidence-based are fueled by current health care regulatory and financial environments (Tescher et al., 2012).

The first step to prevention of a pressure ulcer is the assessment of the risk for acquiring a pressure ulcer (Reddy et al., 2008). After assessing the patient's risk for acquiring a pressure ulcer, a decision can be made as to what strategies should be used to help prevent pressure ulcers. One such prevention strategy would be use of a specialized support surfaces to help reduce the pressure that the patient's body weight exerts on skin and subcutaneous tissue as it presses against the surface of the bed or chair (Reddy et al.). The use of low-friction slide sheets and air-assisted transfer devices reduce the risk of skin injuries that are caused by friction and shearing forces (Cherry et al., 2012).

One of the most important interventions for immobile patients is repositioning the patient on a regular schedule of at least every two hours (Cherry et al., 2012). Heel pressure ulcers are a common complication experienced by patients who are immobile in intensive care units (Meyers, 2010). Application of heel protector boots helps to prevent the development of pressure ulcers on the heel of patients. Preventative interventions should include nutritional assessments (Bluestein & Javaheri, 2008).

The first step in treating a pressure ulcer is to relieve the source of pressure or shearing (Allen et al., 2012). Evidence suggests that a proper support surface may reduce the chance that a deep tissue injury would progress to a full-thickness pressure ulcer (Allen et al.). If a pressure ulcer does occur, based on what stage the pressure ulcer is, treatment could involve management of local and distant infection, removal of necrotic tissue, and maintenance of a moist environment to promote wound healing (Bluestein et al., 2008). Pressure ulcer treatment often involves different approaches that protect and promote healing of a pressure ulcer by using such interventions as wound dressings, topical applications, and various different adjunct therapies such as electrical stimulation, light therapy, and vacuum-assisted devices and surgical repair (Smith et al., 2013).

### **Challenges with assessments**

It can be challenging to detect stage I pressure ulcers in patients with darkly pigmented skin and evidence suggests that these patients are more likely to die from pressure ulcers (Lyder, 2009). Deep tissue injuries and Stage I pressure ulcers are frequently missed by nurses because the ulcer does not disrupt the skin's integrity (Aydin & Karadag, 2010). Having accurate, on-going, and up-to-date knowledge regarding



pressure ulcer risk, prevention, staging, and treatment is one way to prevent pressure ulcers (Pieper & Zulkowski, 2014).

Registered nurses often delegate skin assessment to unregistered staff to complete while assisting with washing or dressing patients (Whiteing, 2009). There are significant legal issues surrounding the delegation of these responsibilities (Whiteing). The practitioner must be confident that the person carrying out the skin assessment is competent and educated to complete this task (Whiteing). Given that trained nurses are challenged to accurately assess pressure ulcers, the ability of unregistered staff to do so accurately is questionable.

It is assumed that assessment of pressure ulcers from inspection of the patient's skin by direct observation is different than assessment of pressure ulcers from picture or photographs (Bergquist-Beringer et al., 2011). The use of two-dimensional photographs (wounds are three-dimensional) may limit clinical information important to pressure ulcer classification (Bergquist-Beringer et al.). In nursing practice, examination of a patient's skin is not comparable to assessment of pressure ulcer pictures. Results from studies where photographs were used alone suggest that this method may be less accurate than when a description of the ulcer along with the picture was used (Bergquist-Beringer et al.). Artificial assessment conditions do not reveal the skills of the nurses in conducting the skin assessment and in documenting findings. Because of the variability of different instruments used for skin assessment, nurses should carefully discern what the instrument actually measures so they can be used correctly (Arndt & Kelechi, 2014).

A program entitled *The Resource Nurse Program* was begun in a 511-bed, acute care hospital in the Midwestern United States. This program was developed to address barriers in preventing HAPUs using a system-wide, sustainable team of staff nurses to serve as resource nurses (Beinlich & Meehan, 2014). In 2009, a WOC nurse from this program conducted a chart review which identified inconsistencies in both Braden risk assessment scores and initiation of appropriate interventions by staff nurses. Incontinence-associated dermatitis was frequently identified as stage I or stage II pressure ulcers. The WOC nurse is an effective resource in preventing pressure ulcers, but there are not enough of these specialized clinicians (Beinlich & Meehan).

In summary, the literature supports that accurate assessment and staging of pressure ulcers can be a difficult task. Correctly identifying pressure ulcers guides the treatment to be used to prevent and manage them. The accurate assessment and documentation of a pressure ulcer is important to the care of the patient, to provide legal documentation, and for reimbursement purposes. The purpose of the project was to develop and implement a pressure ulcer assessment and documentation pocket guide for the nurse members of a pressure ulcer prevalence committee in a local hospital setting.

Next, the theoretical framework that guided this project will be presented.

## **Theoretical Framework**

The theory to be used to guide this project is Malcolm Knowles' adult learning theory. Malcolm Knowles is known for popularizing the notion of andragogy, also called the unified theory of adult learning. It was Knowles' belief that adults need to know why they need to learn something.

There are six areas to Knowles Assumptions of Adult Learners:

1. Need to know: Adults need to know why they need to learn something. An informational letter will be provided to the targeted audience outlining the objective and goals.

2. Self-concept: As people mature their self-concept moves from one of being dependent toward one of being self-directed. The pressure ulcer assessment and documentation pocket guide will promote independence for the targeted audience.

3. Experience: As people mature they accumulate a large amount of experience that can serve as a rich resource for learning. The target audience was chosen for this project because of their experience and expertise in pressure ulcer assessment and documentation.

4. Readiness to learn: Real-life problems or situations create a readiness to learn in the adult. The targeted audience would use and assess the tool in real-life situations.

5. Orientation to learning: As a person matures his or her time perspective changes from one of postponed application of knowledge to immediacy of application. One of the goals of the pressure ulcer assessment and documentation pocket guide would be to allow the targeted audience to apply the application immediately.

6. Motivation: Adults are primarily motivated by a desire to solve immediate and practical problems. As a person matures, motivation to learn is stimulated by internal stimuli rather than external stimuli.

(McEwen & Wills, 2011)

These six assumptions help to facilitate forming professional development goals that are significant to nursing (Cooper, 2009). According to Malcolm Knowles, the process in which learners actively manage their own learning includes diagnosing their own learning needs, formulating goals, identifying resources for learning, implementing learning strategies, and evaluating the learning outcomes. (Nothnagle, Goldman, Quirk & Reis, 2010). Adult learners are self-directed, experienced and motivated to learn and employ problem solving with a focus on immediate value to the needs of the learner (Gatti-Petito et al., 2013). Malcolm Knowles was the first to theorize adult learning as a process of self-directed inquiry (Russell, 2006). Adults bring to the learning experience thoughts and feelings that are influenced by motivation, experience, and level of engagement (Russell). Providing nurses with the Pressure Ulcer Assessment and Documentation Pocket Guide could assist them to know why they are assessing and documenting pressure ulcers; be independent; immediately use their knowledge; and experience in real life situations to practically solve the problem (assess, document, prevent or treat).

Next, the methods used in the project will be presented.

## **Methodology**

### **Purpose**

The purpose of the project was to develop and implement a pressure ulcer assessment and documentation pocket guide for the nurse members of a pressure ulcer prevalence committee in a local hospital setting.

### **Design**

This project employed an intervention, post intervention evaluation design. The education of nurses about the guide and its' implementation served as the intervention.

### **Sample and Site**

The sample was drawn from RN members of the Pressure Ulcer Prevalence Committee at the Miriam Hospital in Providence RI. All members of the Pressure Ulcer Prevalence Committee were eligible to participate.

### **Needs Assessment**

The needs assessment to develop a pressure ulcer assessment and documentation pocket guide began while the developer was a member of the Pressure Ulcer Prevalence Committee at the Miriam Hospital. The committee was charged with a monthly compiling of data to include daily skin assessments, Braden scale scores, and prevention and treatment of pressure ulcers strategies. This data was collected by reviewing nursing documentation and assessing each patient's skin for pressure ulcers and comparing the nurses' documentation to the findings of the Pressure Ulcer Committee member's assessment. At the afternoon portion of the monthly meeting, findings were discussed.

These findings included problems with assessments, preventions, treatments, documentation and how to improve assessment and documentation by the nursing staff.

It was frequently noted that there was difficulty in identifying and staging pressure ulcers. Stage II pressure ulcers and incontinence dermatitis were frequently incorrectly documented. As a member of the Pressure Ulcer Prevalence Committee, the graduate student was a resource nurse for the unit on which she worked. It was in that capacity that this writer noted that information on identifying and documenting pressure ulcers was not readily available at the bedside where the nurses were actually doing the assessment. Information that was available was either in books at the nurses' station or on informational handouts taped on the walls at the nurses' station. Available resources tended to be thick, multiple pages, and time consuming to use.

While the graduate student was a member of the Pressure Ulcer Prevalence Committee, an important change was implemented in the routine used for conducting the monthly surveillance day. If a pressure ulcer was assessed and found to be a stage II or greater, the Wound and Ostomy Continence Nurse (WOCN) was paged to confirm the finding and documentation. This change confirmed the importance of assessment and documentation of pressure ulcers and also confirmed the staff nurses' difficulty in assessing and documenting a pressure ulcer. The graduate student spoke with the WOCN regarding the proposed project. The WOCN provided suggestions for the literature search and provided the graduate student with a sample commercial pocket guide. This pocket guide was thought to be a good resource, but it was also identified as cumbersome and time consuming to use at the actual point of care. The goal of the project was to

provide nurses with an accessible, easy to use pressure ulcer assessment and documentation pocket guide and also to standardize the assessment and documentation of pressure ulcers.

### **Development of the Pocket Guide**

The Pressure Ulcer Assessment and Documentation Pocket Guide (side 1: Appendix A, and side 2: Appendix B) is a laminated, one page document sized to fit into a nurse's scrub pocket. One side of the Pressure Ulcer Assessment and Documentation Pocket Guide is an algorithm that will promote step by step critical thinking when assessing a pressure ulcer. The other side of the Pressure Ulcer Assessment and Documentation Pocket Guide identifies the different pressure ulcers stages. For each stage there is a picture and description of that stage ulcer. There is an area listing what is needed to describe a pressure ulcer.

The graduate student developed the algorithm from evidence-based information and from information derived from the NPUAP website. The algorithm was developed to be a step by step guide to assist the nurse to critically think about what needs to be considered in correctly assessing and staging a pressure ulcer. The algorithm was also designed to assist the nurse in correctly identifying wounds that are not pressure ulcers, such as contact dermatitis.

The graduate student developed the pocket guide by evaluating different pocket guides, evidence-based articles, and the NPUAP website. Pictures of pressure ulcers that were embedded in the pocket guide were purchased from the NPUAP website with their permission. Since the NPUAP is a recognized, evidence-based leader in the area, and

since they also provide the staging definitions, it was believed that these pictures would be a highly accurate representation of the various stages.

Prior to use, the Pressure Ulcer Assessment and Documentation Pocket Guide was given to the WOCN as well as a member of the Pressure Ulcer Prevalence Team to evaluate and make recommendations for changes. Some changes were made to the algorithm based on the feedback received. The statement, “Wound caused by incontinence” was changed to “Wound caused by incontinence, trauma or surgery, etc.” The statement “Pressure ulcer found over bony prominence or other areas subject to constant pressure” was changed to “Pressure ulcer found over bony prominence or other areas subject to constant pressure (medical device related).” When finalized, the pocket guide was laminated prior to use in the planned Pressure Ulcer Prevalence meeting.

### **Procedures**

The graduate student obtained permission from the WOCN, who also chairs the Pressure Ulcer Prevalence Committee, to pilot the guide during a committee meeting. Permission was also obtained from the CNO of the organization. The project was reviewed by the IRB and identified as a quality improvement project.

Recruitment of Pressure Ulcer Prevalence Committee members occurred during the February monthly Pressure Ulcer Prevalence Committee meeting. At the morning session of this meeting and before patient assessments began, the graduate student explained the rationale for development of the Pressure Ulcer Assessment and Documentation Pocket Guide and how to use it. The pressure ulcer prevalence committee members were asked to use the pocket guide in the assessments performed



that day. Participants were informed they could choose to not use the guide or complete the evaluation survey without prejudice. Committee members who chose to participate were provided with the Pressure Ulcer Assessment and Documentation Pocket Guide.

Next, the committee members proceeded to their assigned units and completed skin assessments and collected data on patients in the hospital. All patients were assessed unless they refused the assessment, were actively dying, or were unstable. The committee members who chose to participate used the pressure ulcer assessment and documentation pocket guide during data collection. The graduate student was available by way of pager and went to each unit during that day and approached the committee members to answer any questions. Questions asked were not about how to use the pocket guide as participants stated that they felt comfortable with how to use it. Rather, inquiries were related to whether the pocket guide would eventually be supplied to the staff nurses on the floor.

A post assessment meeting for the committee is typically held from 1:30 to 3:00, at which time data that is collected is provided to the chair of the committee. However, because the WOCN was unavailable on the day the pocket guide was assessed, there was not an afternoon meeting scheduled. Before departing, participants were asked to complete a brief evaluation designed to obtain feedback about utility of the guide. Completed evaluations were collected by an appointed representative of the WOCN and placed in a designated manila envelope to which only the graduate student had access.

### **Measurement**

The evaluation survey (Appendix C) was designed by the student based on literature review and clinical experience. The survey inquired into the usefulness of the pressure ulcer assessment and documentation pocket guide when used to assess and document a pressure ulcer. The survey consisted of six questions that were answered on a scale of 1 to 5 (5=Outstanding, 4=Exceeded Expectations, 3=Met Expectations, 2=Needs Improvement, 1=Unsatisfactory). The questions focused on ease of use, ease of understanding, and time savings of the pocket guide.

**Data analysis**

Descriptive statistics were used to analyze the data.

Next, the results will be presented.

## Results

A total of 12 participants from The Pressure Ulcer Prevalence Committee assessed the Pressure Ulcer Assessment and Documentation Pocket Guide and completed the evaluation form.

Table 1 illustrates participants' responses to the survey evaluation.

Table 1

*Responses to Pocket Guide Evaluation Survey (N = 12)*

	Unsatisfactory	Needs Improvement	Met Expectations	Exceeded Expectations	Outstanding
Was Pocket Guide useful?				4	8
Was it easy to understand				4	8
Did using the Pocket Guide save time when assessing a pressure ulcer?			1	3	8
Did using the Pocket Guide save time when documenting a pressure ulcer		1		3	8
Did it take more time to assess a pressure ulcer when using the Pocket Guide?		1		5	5
Did it take more time to document a pressure ulcer when using the Pocket Guide?		1		4	6

A mean score was calculated for each question and results are illustrated in Table 2 on the next page. One evaluation form just had the word "no" written for

question 5 and 6, was not scored, and these two questions were not used in the calculation of the mean.

Table 2

*Mean Scores on the Pocket Guide Evaluation Survey*

<b>Question</b>	<b>Mean</b>
Was Pocket Guide Useful? (n = 12)	4.66
Was it easy to understand? (n = 12)	4.66
Did using the Pocket Guide save time when assessing a pressure ulcer? (n = 12)	4.58
Did using the Pocket Guide save time when documenting a pressure ulcer? (n = 12)	4.5
Did it take more time to assess a pressure ulcer when using the Pocket Guide? (n = 11)	4.27
Did it take more time to document a pressure ulcer when using the Pocket Guide? (n = 11)	4.36

Overall, the Pressure Ulcer Assessment and Documentation Pocket Guide was evaluated as being valuable in assessing and documenting pressure ulcers.

Open ended comments included: very helpful; helpful; documentation section good; great tool, only suggestion would be to have a ruler (in cm) if possible on the pocket guide; love it; helpful for myself and I feel staff would benefit; handy; was able to fit in a pocket; and may make headers darker/bolder type.

Next, the summary and conclusions will be presented.

## Summary and Conclusions

Pressure ulcers are defined by The National Pressure Ulcer Advisory Panel (2007) as an area of localized injury of the skin and/or underlying tissue caused by external pressure alone or in combination with shearing and/or friction. There are different classifications of pressure ulcers and these classifications are based on extent of tissue injury. It is important not to classify other wounds as a pressure ulcer or misclassify the actual stage of a pressure ulcer as this could have significant economic and regulatory implications (Bergquist-Beringer et al., 2011). The cost of treating a single full-thickness pressure ulcer (stage III, IV or unstageable) can be as much as \$70,000, and United States (US) expenditures for treating pressure ulcers have been estimated at \$11 billion per year (Reddy et al., 2008). Pressure ulcers are not only costly to treat, but they can cause pain, diminish a patient's quality of life, increase morbidity and mortality, and prolong a patient's hospital stay (Bergquist-Beringer et al., 2011).

Although pressure ulcer development has been an important nursing concern, hospital-acquired pressure ulcer (HAPU) development has more recently become a topic of special interest because of CMS guidelines regarding reimbursement. Hospital-acquired Stage III and IV pressure ulcers are identified as "never events" by CMS, which no longer reimburses hospitals for the costs of caring for those HAPUs (Cherry et al., 2012). Additionally, Medicare provides an additional payment, a Medicare Severity-Diagnosis Related Group (MS-DRG), for the care of more severe pressure ulcers that were present on admission.

Skin assessment, documentation, and pressure ulcer risk assessment should be completed on every patient in an acute care hospital on admission and on a daily basis (Stansby et al., 2014). Precise identification and classification of pressure ulcers is the basis for accurate communication and documentation. Documentation is also the prerequisite for valid prevalence and incidence rates (Kottner et al., 2009a). It is the responsibility of all registered nurses (RNs) to document clearly and comprehensively (Whiteing, 2009). Pressure ulcers are considered to be an important indicator of the quality of care (Kottner et al., 2009a) and nurses have an indispensable role in the prevention and management of pressure ulcers (Lee et al., 2012).

The accurate assessment and documentation of a pressure ulcer is important to the care of the patient, to provide legal documentation, and for reimbursement purposes. It is assumed that assessment of pressure ulcers from inspection of the patient's skin by direct observation is different than assessment of pressure ulcers from picture or photographs (Bergquist-Beringer et al., 2011). Results from studies where photographs were used alone suggest that this method may be less accurate than when a description of the ulcer along with the picture was used (Bergquist-Beringer et al.).

The purpose of the project was to develop and implement a pressure ulcer assessment and documentation pocket guide for the nurse members of a pressure ulcer prevalence committee in a local hospital setting. The Pressure Ulcer Assessment and Documentation Pocket Guide was developed based on a comprehensive literature review, review of current pocket guides, and results from a needs assessment. Based on these findings, a need was found for a concise, laminated pocket guide that incorporated both

pictures and descriptions of the different stage pressure ulcers. An algorithm and documentation guidelines were placed on the pocket guide.

Pressure ulcer prevalence committee members who agreed to participate proceeded to their assigned units and completed skin assessments on the patients using the Pressure Ulcer Assessment and Documentation Pocket Guide. The participants then voluntarily completed an evaluation form regarding use of the Pressure Ulcer Assessment and Documentation Pocket Guide. Based on the answers and comments on the evaluation forms, the Pressure Ulcer Assessment and Documentation Pocket Guide was identified as a useful tool that staff nurses could use when assessing pressure ulcers and the documentation of pressure ulcers.

One of the limitations to this evaluation process was a small sample size of 12 members of the Pressure Ulcer Prevalence Committee. Participants of the evaluation may not have been representative of the staff nurses who usually perform skin assessments. The staff nurse who has not benefitted from the additional education that the members of the Pressure Ulcer Prevalence Committee have received was not represented in this evaluation process. Though utilizing this group was useful because of their knowledge of pressure ulcers and how to document pressure ulcers, it would have also been beneficial to have staff nurses evaluate the Pressure Ulcer Assessment and Documentation Pocket Guide. Another limitation was this evaluation was done in one day. There was no attempt to document additional information in terms of patient demographics, so it is unknown if factors such as skin color would impact the usefulness of the guide.

In conclusion, the Pressure Ulcer Assessment and Documentation Pocket guide that was developed for this project was successful as a tool for the nurses of the pressure ulcer prevalence committee to utilize when assessing and documenting pressure ulcers. It is recommended that the Pressure Ulcer Assessment and Pocket Guided be distributed to the nursing staff on each unit by the units Pressure Ulcer Prevalence Committee member. The Pressure Ulcer Prevalence Committee member would then in be available to answer any questions regarding the Pressure Ulcer Assessment and Documentation Pocket Guide.

Next, the recommendations and implications will be presented.



### **Recommendations and Implications**

Pressure ulcers are an uncomfortable, painful, and a costly complication of hospital immobility and can occur in as little as two hours of unrelieved pressure (Denby & Rowlands, 2010). Based on the results of this project, it is recommended that a one page, laminated pressure ulcer assessment and documentation pocket guide be supplied to the staff nurses for their use in assessing patients' skin. Implications for the distribution and use of the Pressure Ulcer Assessment and Documentation Pocket Guide would be to improve identification and staging of pressure ulcers as well as improving documentation of them. Correctly identifying the stage of a pressure ulcer, or correctly identifying when a wound/rash is not a pressure ulcer, will allow the APRN to correctly treat the wound. With timely identification and treatment of a pressure ulcer, the severity of the pressure ulcer can be reduced. If a pressure ulcer is identified as a stage II and treatment is begun immediately, the pressure ulcer would typically not progress to a stage III or IV pressure ulcer. The importance of correctly documenting a wound cannot be overstated. If a diabetic ulcer was documented as a stage III pressure ulcer, this would be classified as a never event by the Centers for Medicare and Medicaid Services and the hospital would not receive reimbursement for treatment of that wound and treatment of such a wound could be very costly.

Development and evaluation of evidence based pressure ulcer assessment and documentation tools strengthens nursing science and contributes to advanced practice. The education of nurses regarding assessing a patient's skin begins in nursing school. The concept of correctly identifying and documenting pressure ulcers as a standard of

care needs to be reinforced in practice. In principal, the members of the Pressure Ulcer Prevalence Committee are also the resource nurses for their respective units regarding skin assessment, documentation and treatment of pressure ulcers. They take information gained from the Pressure Ulcer Prevalence Committee monthly meetings back to the unit. They also teach staff about new wound care products, changes in assessment, such as when DTI's were added to the staging of pressure ulcers, and tools to be used for skin assessment and documentation. The APRN is well suited to serve as an educator, role model, and consultant for staff nurses, resource nurses, and other members of the healthcare team.

The APRNs' role within the institution includes developing hospital policy, setting standards, as well as educating and evaluating staff. The advanced practice nurse can provide indispensable support to interdisciplinary team members. Advanced practice nurses play an important role in quality and safety within institutions. Sharing knowledge with new nurses, nursing students, and medical colleagues would enhance the advanced practice role and potentially improve practice. Skin assessment and management has traditionally been a nursing role and expanding understanding and practice of medical colleagues in this area would be an important contribution

A key intervention such as early identification of pressure ulcers can improve nurse-sensitive outcomes regarding pressure ulcers. The APRN is invaluable in incorporating the latest professional practice guidelines, contributing to practice standard development and guiding nurse sensitive measures. Participation in professional

organizations is an essential part of the role of the APRN and can provide needed advocacy for critical issues such as pressure ulcer prevention.

Advanced practice nurses have the ability to impact national policy and help to set national agendas by participation in key organizations to influence policy.

Advanced practice nurses have an important role in identifying research opportunities related to tools for assessment, documentation and treatment. While established measures such as the Braden are available, every measure has limitations and further study is warranted. Further research is needed with people of varying ethnicities and skin color. Given the transition across the country to the electronic medical record, further research is indicated to examine the impact of this change on documentation of pressure ulcer assessment, prevention, and management. Further study of innovative prevention and treatment strategies is needed. Pressure ulcers continue to be seen as predominantly within the nursing domain; development of collaborative interventions to increase physician providers' interest and involvement in pressure ulcer prevention and managed is indicated.

## References

- Alderden, J., Whitney, J., Taylor, S., & Zaratkiewics, S. (2011). Risk profile characteristics associated with outcomes of hospital-acquired pressure ulcers: a retrospective review. *CriticalCareNurse* , 31:4, 30-42.
- Allen, L., McGarrah, B., Barrett, D., Stenson, B., Turpin, P., & VanGilder, C. (2012). Air-fluidized therapy in patients with suspected deep tissue injury. *Journal Wound Ostomy Continence Nursing*, 39(5):555-561.
- Aoi, N., Yoshimura K., Kadono, T., Nakagami, G., Iizuka, S., Higashino, T., Araki, J., Koshima I., & Sanada, H. (2009). Ultrasound assessment of deep tissue injury in pressure ulcers: possible prediction of pressure ulcer progression. *Plastic and Reconstructive Surgery*, 124(2): 540-550.
- Arndt, J. & Kelechi, T. (2014). An overview of instruments for wound and skin assessment and healing. *Journal Wound Ostomy Continence Nursing*, 41(1):17-23.
- Aydin, A. & Karadag, A. (2010). Assessment of nurses' knowledge and practice in prevention and management of deep tissue injury and stage I pressure ulcer. *Journal Wound Ostomy Continence Nursing*, 37(5): 487-494.
- Beinlich, N. & Meehan, A. (2014). Resource nurse program. A nurse-initiated, evidence-based program to eliminate hospital-acquired pressure ulcers. *Journal Wound Ostomy Continence Nursing*, 41(2): 136-141.

- Bergquist-Beringer, S., Gajewski, B., Dunton, N., & Klaus, S. (2011). The reliability of the national database of nursing quality indicators pressure ulcer indicator. A triangulation approach. *Journal Nursing Care Quality, 26*:4, 292-301.
- Bluestein, D. & Javaheri, A. (2008). Pressure ulcers: Prevention, evaluation, and management. *American Family Physician, 78*:10, 1186-1194.
- Cherry, C., Moss, J., Maloney, M., & Midyette, P. (2012). Preventing hospital-acquired pressure ulcers. *Nursing Critical Care, 7*:5, 29-34.
- Cooper, E. (2009). Creating a culture of professional development: a milestone pathway tool for registered nurses. *The Journal of Continuing Education in Nursing, 40*:11, 501-508.
- Denby, A. & Rowlands, A. (2010). Stop them at the door. Should a pressure ulcer prevention protocol be implemented in the emergency department. *Journal Wound Ostomy Continence Nursing, 37*(1) 35-38.
- Fife, C., Yankowsky, K., Ayello, E., Capitulo, K., Fowler, E., Krasner, D., Mulder, G., & Sibbald, G. (2010). Legal issues in the care of pressure ulcer patients: key concepts for healthcare providers-a consensus paper from the international expert wound care advisory panel. *Advances in Skin & Wound Care, 23*(11):493-507.
- Garcia-Fernandez, F., Pancorbo-Hildago, P., & Agreda, J. (2014). Predictive capacity of risk assessment scales and clinical judgment for pressure ulcers. A meta-analysis. *Wound, Ostomy and Continence Nurses Society, 41*(1):24-34.

- Gardener, L. Lampshire, S., Biggins, A., McMurray, A., Noake, N. van Zyl, M., Vickery, J., Woodage, T., Lodge, J., & Edgar, M. (2008). Evidence-based best practice in maintaining skin integrity. *Wound Practice and Research, 16*(2).
- Gatti-Petito, J., Lakatos, B., Bradley, H., Cook, L., Haight, I., & Kari, C. (2013). Clinical scholarship and adult learning theory: a role for the DNP in nursing education. *Nursing Education Perspectives, 34*:4, 273-276.
- Honaker, J. & Forston, M. (2011). Adjunctive use of noncontact low-frequency ultrasound for treatment of suspected deep tissue injury. *Journal Wound Ostomy Continence Nursing, 38*(4):394-403.
- Kallman, U. & Lindgren, M. (2014). Predictive validity of a 4 risk assessment scales for prediction of pressure ulcer development in a hospital setting. *Advances in Skin Wound Care, 27*(2): 70-76.
- Kottner, J., Dassen, T., & Lahmann, N. (2009a). Comparison of two skin examination methods for grade 1 pressure ulcers. *Journal of Clinical Nursing, 18*, 2464-2469.
- Kottner, J., Raeder, K., Halfens, R., & Dassen, T. (2009b). A systematic review of interrater reliability of pressure ulcer classification systems. *Journal of Clinical Nursing, 2009, 18*, 315-336.
- Lee, T., Lin, K., Mills, M., & Kuo, Y. (2012). Factors related to the prevention and management of pressure ulcers. *Computers, Informatics, Nursing, 1-7*.
- Lyder, C. (2009). Closing the skin assessment disparity gap between patients with light and darkly pigmented skin. *Journal Wound Ostomy Continence Nursing, 36*(3), 285.

- Mateo, M. & Kirchhoff, K. (2009). *Research for advanced practice nurses* (p 120). New York: Spring Publishing.
- Mackintosh, R., Gwilliam, A., & Williams, M. (2014). Teaching the fruits of pressure ulcer staging. *Journal Wound Ostomy Continence Nursing*, 41(4): 381-387.
- McEwen, M., & Wills, E. (2011). *Theoretical Basis for Nursing* (p 364-369). Philadelphia:Lippincott Williams & Wilkins.
- Meyers, T. (2010). Preventing heel pressure ulcers and plantar flexion contractures in high-risk sedated patients. *Journal Wound Ostomy Continence Nursing*, 37(4):372-378.
- National Pressure Ulcer Advisory Panel. NPUAP pressure ulcer stages/categories. Washington, DC: National Pressure Ulcer Advisory Panel; 2007.  
<http://www.npaup.org>.
- Nothnagle, M., Goldman, R., Quirk, M., & Reis, S. (2010). Promoting self-directed learning skills in residency: a case study in program development. *Academic Medicine*, 85(12):1875-1879.
- Pieper, B. & Zulkowski, K. (2014). The Pieper-Zulkowski pressure ulcer knowledge tests. *Adv Skin Wound Care*, 27:413-419.
- Reddy, J., Gill, S., & Rochon P. (2008). Preventing pressure ulcers: a systematic review. *JAMA*, 296:8, 974-984.
- Russell, S. (2006). An overview of the adult learning processes. *Urol Nurs* 26(5):349-352.

- Smith, M., Totten, A., Hickam, D., Fu, R., Wasson, N., Rahman, B., Motu'apuaka, M., & Saha, S. (2013). Pressure ulcer treatment strategies. A systematic comparative effectiveness review. *Annals of Internal Medicine*, 159(1):39-50.
- Stansby, G., Avita, L., Jones, K., & Marsden, G. (2014). Prevention and management of pressure ulcers in primary and secondary care: summary of NICE guidance. *BMJ* 348:g2592 doi:10.1136/bmj.g2592.
- Tescher, A., Branda, M., Byrne, T., & Naessens, J. (2012). All at-risk patients are not created equal. Analysis of Braden pressure ulcer risk scores to identify specific risks. *Journal Wound Ostomy Continence Nursing*. 39:3, 282-291.
- Young, D., Shen, J., Estocado, N., & Landers, M. (2012). Financial impact of improved pressure ulcer staging in the acute hospital with use of a new tool, the NE1 wound assessment tool. *Adv Skin Wound Care*: 25:158-66.
- Whiteing, N. (2009). Skin assessment of patients at risk of pressure ulcers, *Nursing Standard*. 24:10, 40-44.



## Appendix A

Deep tissue injury: Purple or Maroon localized area of discolored intact skin or blood blister due to pressure and/or shearing. May be preceded by tissue that is painful, firm, mushy, boggy, warm or cooler compared to surrounding tissue.



Stage I Pressure Ulcer: Intact skin with non-blanchable redness of localized area usually over bony prominence. Color may differ from surrounding areas. May be painful, firm, soft, warmer, cooler compared to surrounding tissue.



Stage II Pressure Ulcer: Partial thickness loss of dermis presenting as a shallow open ulcer with red-pink wound bed without slough. Intact or ruptured serum or serosanguinous filled blister.



Stage III Pressure Ulcer: Full-thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscle are not exposed. May include undermining or tunneling. Depth varies with location (ie bridge of nose can be shallow).



Stage IV Pressure Ulcer: Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present. Often includes tunneling or undermining. Depth varies with anatomical location (i.e. bridge of nose can be shallow).



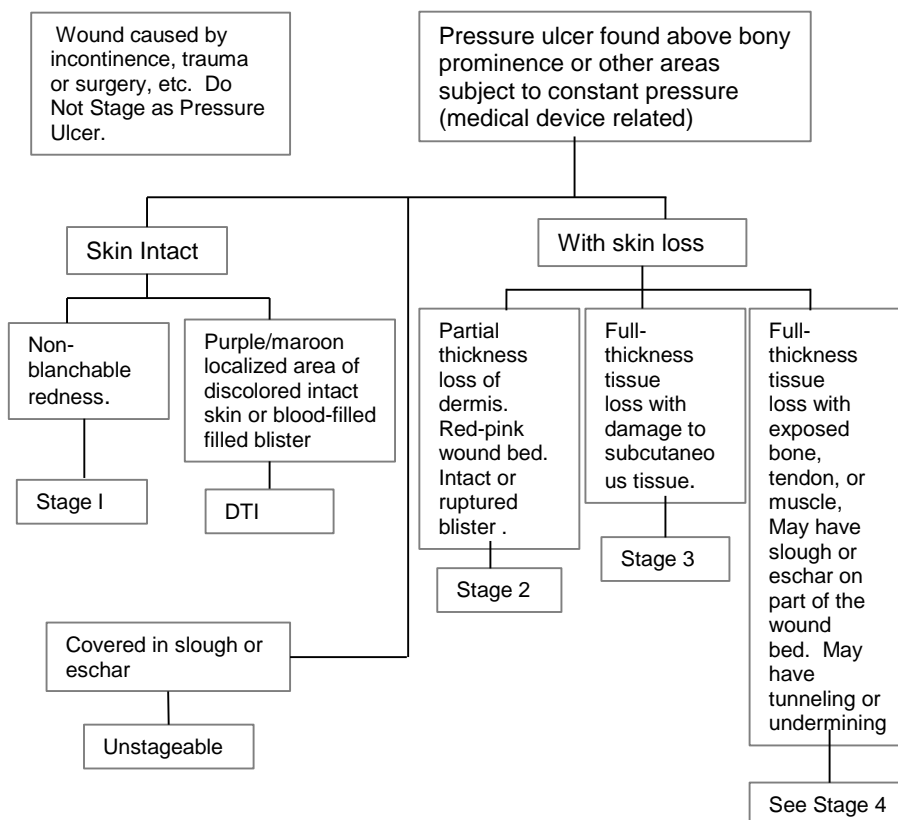
Unstageable Pressure Ulcer: Wound that is completely covered in eschar or slough.



Picture purchased from NPUAP. NPUAP PU definitions.

## Appendix B

### Pressure Ulcer Assessment and Documentation Guide



Documentation: (Include the following in your description)  
 Stage or wound type  
 Location  
 Size (cm): (width, length, depth)  
 Wound bed color: (red, pink, yellow)  
 Wound bed characteristics (eschar, slough, wound edges)  
 Tunneling or undermining:  
 Exudate, Drainage, Odor  
 Presence or absence of pain

## Appendix C

## Pressure Ulcer Assessment and Documentation Pocket Guide

## Program Evaluation

5=Outstanding; 4=Exceeded Expectations; 3=Met Expectations; 2=Needs Improvement;  
1=Unsatisfactory

	5	4	3	2	1
Was the pocket guide useful?					
Was it easy to understand?					
Did using the pocket guide save time when assessing a pressure ulcer?					
Did using the pocket guide save time when documenting a pressure ulcer?					
Did it take more time to assess a pressure ulcer when using the pocket guide?					
Did it take more time to document a pressure ulcer when using the pocket guide?					

Comments/Suggestions:

---



---



---



---



---



---