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Defining Unstageable Pressure Ulcers as Full-Thickness Wounds: Are These Wounds Being Misclassified?

Citation: Journal of wound, ostomy, and continence nursing : official publication of The Wound, Ostomy and Continence Nurses Society / WOCN, Nov 2015, vol. 42, no. 6, p. 583-588 (2015 Nov-Dec)

Author(s): Zaratkiewicz, Sunniva, Whitney, JoAnne D, Baker, Margaret W, Lowe, Jeanne R

Abstract: The purpose of this study was to describe the evolution of unstageable pressure ulcers (PUs) over time to determine if their healing trajectory is consistent with full- or partial-thickness wounds. Retrospective review of electronic medical record and a clinical PU database. Patients with hospital-acquired, unstageable PUs were evaluated. Subjects were cared for at a level 1 trauma/burn center and safety net hospital in the Pacific Northwest between November 2007 and March 2011. Electronic medical records and a clinical PU database for 194 unstageable PUs were examined. The PU database is managed by certified wound care nurses; it includes data on all verified hospital-acquired PUs since 2007. The unit of analysis for this study was the individual PU site. Of the initial 194 unstageable PUs identified, 120 were excluded due to lack of data needed to address research questions. Out of the 74 unstageable PUs that remained in the study, approximately one-third (33.8%) were found to follow a healing trajectory consistent with partial-thickness wounds. Findings indicate that while approximately two-thirds of unstageable PUs demonstrate healing trajectories consistent with full-thickness wounds, slightly more than a third follow a trajectory consistent with partial-thickness wounds. Additional research is needed to clarify the healing trajectories of unstageable PUs and to determine whether the current definition for unstageable PUs is adequate.

Source: Medline

Using the Care Dependency Scale for identifying patients at risk for pressure ulcer

Citation: Journal of advanced nursing, Nov 2015, vol. 71, no. 11, p. 2529-2539 (November 2015)

Author(s): Dijkstra, Ate, Kazimier, Hetty, Halfens, Ruud J G

Abstract: The aim of this study was to evaluate risk screening for pressure ulcer by using the Care Dependency Scale (CDS) for patients receiving home care or admitted to a residential or nursing home in the Netherlands. Pressure ulcer is a serious and persistent problem for patients throughout the Western world. Pressure ulcer is among the most common adverse events in nursing practice and when a pressure ulcer occurs it has many consequences for patients and healthcare professionals. Cross-sectional design. The convenience sample consisted of 13,633 study participants, of whom 2639 received home care from 15 organisations, 4077 were patients from 67 residential homes and 6917 were admitted in 105 nursing homes. Data were taken from the Dutch National Prevalence Survey of Care Problems that was carried out in April 2012 in Dutch healthcare settings. For the three settings, cut-off points above 80% sensitivity were established, while in the residential home sample an almost 60% combined specificity score was identified. The CDS items 'Body posture' (home care), 'Getting dressed and undressed' (residential homes) and 'Mobility' (nursing homes) were the most significant variables which affect PU. The CDS is able to distinguish between patients at risk for pressure ulcer development and those not at risk in both home care and residential care settings. In nursing homes, the usefulness of the CDS for pressure ulcer detection is limited. © 2015 John Wiley & Sons Ltd.

Source: Medline

The cost of prevention and treatment of pressure ulcers: A systematic review

Citation: International journal of nursing studies, Nov 2015, vol. 52, no. 11, p. 1754-1774 (November 2015)

Author(s): Demarré, Liesbet, Van Lancker, Aurélie, Van Hecke, Ann, Verhaeghe, Sofie, Grypdonck, Maria, Lemey, Juul, Annemans, Lieven, Beeckman, Dimitri

Abstract: Pressure ulcers impose a substantial financial burden. The need for high-quality health care while expenditures are constrained entails the interest to calculate the cost of preventing and treating pressure ulcers and their impact on patients, healthcare, and society. The aim of this paper is to provide insight into the cost of pressure ulcer prevention and treatment in an adult population. A systematic literature review was performed to conform the Cochrane Collaboration guidelines for systematic reviews. The search strategy contained index terms and key words related to pressure ulcers and cost. The search was performed in Medline, CINAHL, Web of Science, The Cochrane Library, Embase, and EconLit covering articles up to September 2013. Reference lists and conference abstracts were screened. Articles were eligible if they reported on direct medical cost of pressure ulcer prevention or treatment, and provided national cost estimates, cost per patient, or cost per patient per day. The Consensus on Health Economic Criteria checklist was used to assess methodological quality of the included studies. In total, 2542 records were retrieved. After assessing eligibility, 17 articles were included. Five articles reported on both the cost of prevention and treatment, three articles reported on cost of prevention, and nine articles reported on the cost of pressure ulcer treatment. All articles were published between 2001 and 2013. Cost of pressure ulcer prevention per patient per day varied between 2.65 € to 87.57 € across all settings. Cost of pressure ulcer treatment per patient per day ranged from 1.71 € to 470.49 € across different settings. The methodological heterogeneity among studies was considerable, and encompassed differences regarding type of health economic design, perspective, cost components, and

health outcomes. Cost of pressure ulcer prevention and treatment differed considerable between studies. Although the cost to provide pressure ulcer prevention to patients at risk can importantly impact health care services' budgets, the costs to treat a severe pressure ulcer were found to be substantially higher. Methodological heterogeneity among studies identified the need to use available, and study design-specific methodological guidelines to conduct health economic studies, and the need for additional pressure ulcer specific recommendations. Copyright © 2015 Elsevier Ltd. All rights reserved.

Source: Medline

Clinical validity of the estimated energy requirement and the average protein requirement for nutritional status change and wound healing in older patients with pressure ulcers: A multicenter prospective cohort study

Citation: Geriatrics & gerontology international, Nov 2015, vol. 15, no. 11, p. 1201-1209 (November 2015)

Author(s): Iizaka, Shinji, Kaitani, Toshiko, Nakagami, Gojiro, Sugama, Junko, Sanada, Hiromi

Abstract: Adequate nutritional intake is essential for pressure ulcer healing. Recently, the estimated energy requirement (30 kcal/kg) and the average protein requirement (0.95 g/kg) necessary to maintain metabolic balance have been reported. The purpose was to evaluate the clinical validity of these requirements in older hospitalized patients with pressure ulcers by assessing nutritional status and wound healing. This multicenter prospective study carried out as a secondary analysis of a clinical trial included 194 patients with pressure ulcers aged ≥ 65 years from 29 institutions. Nutritional status including anthropometry and biochemical tests, and wound status by a structured severity tool, were evaluated over 3 weeks. Energy and protein intake were determined from medical records on a typical day and dichotomized by meeting the estimated average requirement. Longitudinal data were analyzed with a multivariate mixed-effects model. Meeting the energy requirement was associated with changes in weight ($P < 0.001$), arm muscle circumference ($P = 0.003$) and serum albumin level ($P = 0.016$). Meeting the protein requirement was associated with changes in weight ($P < 0.001$) and serum albumin level ($P = 0.043$). These markers decreased in patients who did not meet the requirement, but were stable or increased in those who did. Energy and protein intake were associated with wound healing for deep ulcers ($P = 0.013$ for both), improving exudates and necrotic tissue, but not for superficial ulcers. Estimated energy requirement and average protein requirement were clinically validated for prevention of nutritional decline and of impaired healing of deep pressure ulcers. Geriatr Gerontol Int 2015; 15: 1201-1209. © 2014 Japan Geriatrics Society.

Source: Medline

Relationship Between Time in the Operating Room and Incident Pressure Ulcers: A Matched Case-Control Study

Citation: American journal of medical quality : the official journal of the American College of Medical Quality, Nov 2015, vol. 30, no. 6, p. 591-597 (November 2015)

Author(s): Hayes, Rachel M, Spear, Marcia E, Lee, Sheree I, Krauser Lupear, Buffy E, Benoit, Richard A, Valerio, Rainy, Dmochowski, Roger R

Abstract: The objective was to determine the relationship between time in the operating room (OR) and hospital-acquired pressure ulcers (HAPUs), controlling for temporality. The research team identified 931 HAPUs among surgical patients and matched them to 4 controls by hospital length of stay at the time the pressure ulcer (PU) was documented. A regression model estimated the relationship between OR time and HAPU after controlling for matching, age, sex, admission and current Braden score, weight, year, and American Society of Anesthesiologists physical status score. OR time in the 24 hours prior to PU documentation was associated with PUs. Only 5% of HAPUs occurred within 24 hours of extended (>4 hours) surgery and 58% occurred after hospital day 5. Extended surgery is confirmed as a risk factor for PU development. Most PUs do not appear in the immediate postoperative period, and prevention efforts should focus on postoperative patient care, when most HAPUs develop. © The Author(s) 2014.

Source: Medline

Differentiating a Pressure Ulcer from Acute Skin Failure in the Adult Critical Care Patient

Citation: Advances in skin & wound care, Nov 2015, vol. 28, no. 11, p. 514-524 (November 2015)

Author(s): Delmore, Barbara, Cox, Jill, Rolnitzky, Linda, Chu, Andy, Stolfi, Angela

Abstract: The purpose of this learning activity is to provide information regarding the differentiation between pressure ulcers and acute skin failure (ASF) in critically ill patients. This continuing education activity is intended for physicians and nurses with an interest in skin and wound care. After participating in this educational activity, the participant should be better able to: 1. Describe the purpose, methodology and impact of this research. 2. Differentiate the pathophysiology of pressure ulcers and ASF. 3. Identify risk factors and diagnostic criteria for ASF. To develop a statistical model to predict the development of acute skin failure in patients admitted to the intensive care unit (ICU) and to validate this model. Retrospective case-control, logistic regression modeling 552 ICU patients. Intensive care unit patients with and without pressure ulcers (PrUs) were studied and compared on key variables sorted into the following categories: (1) disease status, (2) physical conditions, and (3) conditions of hospitalization. The variables, peripheral arterial disease (odds ratio [OR], 3.8; $P = .002$), mechanical ventilation greater than 72 hours (OR, 3.0; $P < .001$), respiratory failure (OR, 3.2; $P < .001$), liver failure (OR, 2.9; $P = .04$), and severe sepsis/septic shock (OR, 1.9; $P = .02$), were found to be statistically significant and independent predictors of acute skin failure in ICU patients. These variables created a predictor model for acute skin failure in the ICU. Lack of objective criteria to define acute skin failure presents a clinical conundrum for practitioners—the acknowledgment that skin failure exists, but no clear-cut diagnostic criteria in which to support its existence as a result of a paucity of empirical evidence. In certain populations, such as the critically ill patient, the phenomenon of acute skin failure may be occurring, and with the current level of evidence, these ulcers may be incorrectly identified as PrUs. Accurately distinguishing risk factors that lead to a PrU from factors that result in a lesion due to acute skin failure is crucial in the quest to provide evidence-based practice to patients.

Source: Medline

Intervention with Formulated Collagen Gel for Chronic Heel Pressure Ulcers in Older Adults with Diabetes

Citation: Advances in skin & wound care, Nov 2015, vol. 28, no. 11, p. 508-513 (November 2015)

Author(s): Agosti, Jennifer K, Chandler, Lois A

Abstract: Chronic pressure ulcers (PrUs), ulcers that fail to progress through the expected phases of wound healing in a timely fashion, are not only a concern for the patients afflicted with them, but are also a significant burden for the long-term-care facilities in which patients reside. The heel is the second most common location for PrUs. Morbidity and mortality rates for heel PrUs, particularly in the diabetic population, are alarming. Therefore, a consistently effective, cost-conscious, and user-friendly topical treatment for heel ulcers would be welcomed by patients and clinicians. This article describes a marked and rapid improvement in wound granulation in 3 older adult patients following weekly treatment for 8 weeks of chronic (≥ 1 -year duration) heel ulcers with an easy-to-use, cost-effective, topical, formulated collagen gel.

Source: Medline

Common Questions About Pressure Ulcers

16/11/2015

Citation: American family physician, Nov 2015, vol. 92, no. 10, p. 888-894 (November 15, 2015)

Author(s): Raetz, Jaqueline G M, Wick, Keren H

Abstract: Patients with limited mobility due to physical or cognitive impairment are at risk of pressure ulcers. Primary care physicians should examine at-risk patients because pressure ulcers are often missed in inpatient, outpatient, and long-term care settings. High-risk patients should use advanced static support surfaces to prevent pressure ulcers and air-fluidized beds to treat pressure ulcers. Physicians should document the size and clinical features of ulcers. Cleansing should be done with saline or tap water, while avoiding caustic agents, such as hydrogen peroxide. Dressings should promote a moist, but not wet, wound healing environment. The presence of infection is determined through clinical judgment; if uncertain, a tissue biopsy should be performed. New or worsening pain may indicate infection of a pressure ulcer. When treating patients with pressure ulcers, it is important to keep in mind the patient's psychological, behavioral, and cognitive status. The patient's social, financial, and caregiver resources, as well as goals and long-term prognosis, should also be considered in the treatment plan.

Source: Medline

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