

[OP094] THE DESIGN AND IMPLEMENTATION OF A LOCAL STRATEGY TO INCREASE THE ACCURACY OF PRESSURE ULCER CLASSIFICATION: THE PUG TOOL

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Free Paper Session: Pressure Ulcer 2

Aim: Following several Tissue Viability referrals for pressure ulcer (PU) verification, it was identified that classification skills amongst adult nursing staff within our organisation were poor. Distinguishing between PU grades and moisture lesions (ML) was problematic, often leading to inaccurate reporting and inappropriate management. This poster describes the development and implementation of a local pressure ulcer grading tool and supporting poster, designed to educate nursing staff and so overcome these difficulties.

Method:

Utilising the European Pressure Ulcer Advisory Panel (EPUAP, 2012) classification guidance:

- An easy to use, image illustrated decision making tool was designed and shared with the Tissue Viability Link Nurse Group (TVLNG)
- The tool was tested on a number of TVLN against a number of verified PU and ML images to assess its accuracy
- A logo and supporting poster was also designed and presented to the TVLNG for feedback

Results / Discussion:

- The Pressure Ulcer Grading (PUG) Tool and logo was developed, feedback on its design and usability were well received
- Preliminary testing on 20 nurses on 20 PU and ML images yielded a 100% accuracy rate
- Approval given by the Chief Nurse to implement the PUG tool and poster within the Trust
- Trust funding secured for the first print and piloted on 5 wards
- External support provided by commercial companies to fund reprinting for full implementation

Conclusion: Successful implementation of this local strategy provided a consistent approach to clinical practice, whilst facilitating accurate classification of PU and differentiating them from ML.

[OP095] PRESSURE ULCER AVOIDABILITY: A DELPHI STUDY IN CONJUNCTION WITH EWMA SOCIETIES.

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Free Paper Session: Pressure Ulcer 2

Aim: To determine the consensus opinion of European wound specialists on aspects of the avoidability of pressure ulcers.

Method: A Delphi study conducted via the EWMA member societies. The questions were circulated via national societies to their members. Data from responses were analysed and tabulated.

Results / Discussion: 155 respondents from 13 EWMA national societies answered the Delphi survey. The study included 22 questions and statements. Overall 121 (78%) did not regard all PU to be preventable with 22 (14%) regarding them as preventable and 12 (8%) undecided. Of those who did not regard all PU to be preventable, 26 (20%) felt that up to 25% are preventable, 11 (9%) felt 26-50% preventable, 52 (40%) felt 51-75% preventable and 40 (31%) felt 76-100% preventable. The development of category 3 and 4 PU was thought to be the result of poor care in 27 (17%), 116 (75%) did not, and 12 (8%) were undecided. For hospital-acquired PU, 39 (25%) thought all to be preventable, 105 (68%) disagreed and 11 (7%) were undecided. For community-acquired PU the corresponding figures were 15 (10%), 132 (85%) and 8 (5%). For the SSKIN care bundle, 115 (80%) felt that it should be implemented across Europe, 11 (8%) disagreed and 17 (12%) were undecided.

Conclusion: The data indicate that the current literature and current expert opinion are not in agreement on PU avoidability. The SSKIN care bundle should be standard European practice. Dedicated specialist clinicians should be appointed regionally for care home responsibility.

[OP096] FOAM DRESSING FOR PREVENTION OF PRESSURE ULCER IN AN INTENSIVE CARE UNIT SETTING: A SYSTEMATIC REVIEW

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Free Paper Session: Pressure Ulcer 2

Aim: This paper is a systematic review with the objective of determining the effectiveness of foam dressing in the prevention of pressure ulcer in an intensive care unit setting.

Method: A systematic review of literature from 1950-May 2014 was conducted using the PubMed, CINAHL, Cochrane, MEDLINE, British Nursing Index, EBSCO Host, OCLC, Proquest and PsychInfo databases. The review included randomised or non-randomised control trials, published in English or non-English, of foam dressing for prevention of pressure ulcer in an intensive care unit setting (ICU).

Results / Discussion: Of the over 1957 potentially releasing studies examined, 5 pertinent articles involving 828 participants were identified. Almost all the participants reported one or more statistically significant outcomes. The main points to emerge from this review of studies are that foam dressings show positive effects on foam dressing for prevention of pressure ulcer in an ICU. The quality of the trials was limited by the potential for bias associated with inadequate concealment, no detailed description of the outcome measurement and no reported intention-to-treat analysis. Moreover, problems existed in some studies with confounding factors. The review clearly highlights the need for well-designed, methodologically standardised outcome measurement research into the effectiveness of foam dressing for prevention of pressure ulcer in an ICU.

Conclusion: This review strengthens the case for the use of foam dressing diminished the incidence of pressure ulcer in ICU.

[OP097] PREVENTING PRESSURE ULCERS BY ASSESSMENT OF THE MICROCIRCULATION IN TISSUE EXPOSED TO PRESSURE

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Free Paper Session: Pressure Ulcer 2

Aim: To combine optical methods into a system for measuring blood flow (BF) changes at different tissue depths to reveal vascular mechanisms relevant to pressure ulcer etiology under clinically relevant conditions and in relation to the evaluation of pressure-redistribution support surfaces.

Method: Photoplethysmography and laser Doppler flowmetry were combined in a novel system that discriminates BF at different depths. BF measurements before, during, and after pressure exposure of the sacral tissue were performed, including 42 individuals < 65 years, 38 individuals ≥ 65 years, and 35 patients ≥ 65 years. The vascular phenomena pressure-induced vasodilation (PIV) and reactive hyperemia (RH) were explored with between-subject comparisons of BF and pressure while lying in supine positions on a standard mattress and within-subject comparisons while lying on four mattress.

Results: The most common BF response to tissue exposure was PIV, although a lack of PIV was observed in some individuals. Pressure levels, normally considered to be harmless, could have a significant effect on the microcirculation in different tissue structures. A larger proportion of individuals lacked PIV and RH in deeper tissue compared to more superficial tissue.

Conclusion: PIV and RH was present at different depths under clinically relevant conditions but a high-risk population lacking these responses was found. The evaluation of pressure-redistribution support surfaces in terms of BF changes was shown to be unfeasible, but assess individual physiological responses related to pressure ulcer development, such as PIV and RH could be a new possibility to identify risk-patients for pressure ulcer development.

[OP098] DO ELECTRICAL STIMULATION ENHANCE PRESSURE ULCER HEALING IN PEOPLE LIVING WITH SPINAL CORD INJURIES: A META-ANALYSIS AND SYSTEMATIC REVIEW OF RANDOMISED AND NON-RANDOMISED CONTROLLED TRIALS

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Free Paper Session: Pressure Ulcer 2

Aim: To quantitatively analyse the effect of ES on PrU healing compared with standard wound care (SWC) and/or sham stimulation.

Method: Review was limited to peer-reviewed studies published in English from 1970 to May 2014. Studies included randomized controlled trials (RCTs) and non-RCTs. Methodological quality was assessed using established instruments. Pooled analyses were performed to calculate mean difference (MD) for continuous data, odds ratio (OR) for dichotomous data.

Results / Discussion: Eight prospective controlled studies were reviewed, five studies were RCTs, and three studies were non-RCTs. Pooled analyses of eight trials showed ES significantly improved daily healing rate (MD 0.89, 95% CI 0.23-1.55, $p=0.008$) with significant heterogeneity. Pulsed current ES significantly improved daily healing rates compared with constant direct current (DC) or alternating current (AC) in two trials (MD 1.50, 95% CI 0.62, 2.39, $p=0.0009$, $I^2=81\%$). Pooled analysis of two trials showed significant higher numbers of ulcer healed (OR 2.95, 95% CI 1.69–5.17, $p=0.0002$, $I^2=0\%$) with ES treatment. There was a trend towards less number of ulcer worsened with ES treatment (OR 0.38, 95% CI 0.12–1.24, $p=0.11$, $I^2=18\%$).intervals (CI).

Conclusion: ES can significantly enhance PrU healing in SCI according to limited level I evidence. Pulsed current ES may confer better benefit on PrU healing than DC or AC. Electrodes placed on wound bed maybe superior to those applied on the intact skin.

