

Should expert opinion or research findings guide PU grading changes?

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The pressure ulcer community often agrees that relatively little is known about the fine detail of our field, for example, we do not have much information about the effectiveness of our interventions, and the true risk factors for pressure ulcer development remain elusive.

One area where agreement had generally been reached was in the description of pressure ulcers — for more than 20 years a four stage (or grade) system had been seen as sufficient to describe all forms of pressure ulcer encountered. While the definition of the presumed most superficial form of pressure damage (grade 1) was subject to considerable debate through the 1980s (with eventual consensus upon 'non-blanchable erythema' to define grade 1 damage), the remainder of the classification system (grades 2–4) have remained essentially unchanged since the mid-1970s. However, this accepted wisdom is now being reviewed both in Europe and the United States.

The US has already amended their pressure ulcer classification to add three new states: normal skin and tissue, unstageable and suspected deep tissue injury (<http://www.npuap.org/pr2.htm>). The last of these may be controversial for this describes intact skin that has already sustained significant tissue damage in

deeper layers that will later become evident at the skin surface. There are mathematical models that predict the greatest stresses will occur in deep tissue layers (Gefen, 2008), while animal models have suggested the increased vulnerability of muscle tissue to applied pressure compared with skin (Nola and Vistnes, 1980). These observations strengthen the

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theoretical basis for the existence of deep tissue injury but epidemiological data is missing — how many apparently grade 1 pressure ulcers suddenly collapse into significant grade 4 wounds? There are dangers that without such data 'deep tissue injury' will remain a theoretical construct and as such may have no useful place in day-to-day pressure ulcer classification.

In Europe the focus in recent years has been upon grade 2 pressure ulcers with the belief that many of these wounds may result from abrasion of moist skin (moisture lesions) rather than the effects

of direct pressure. There is some evidence to implicate moisture and abrasion, rather than pressure, in the generation of grade 2 pressure ulcers (Clark, 1997) although this is weak and needs replication. Beyond this study there is no clear data that many grade 2 pressure ulcers, if indeed any, are formed without some clear and explicit role for applied mechanical forces. Like deep tissue injury, moisture lesions need to be explored within well-defined studies on pressure ulcer aetiology.

The forthcoming European Pressure Ulcer Advisory Panel (EPUAP) conference will host a showcase debate on the existence and role of both deep tissue injury and moisture lesions. While this will undoubtedly be stimulating and provoke considerable debate, the question remains: should pressure ulcer classification be changed from the accepted four-stage model on the advice of the experts in the field or should these changes come about only after careful consideration of the findings of research studies generated to test the theories proposed by the pressure ulcer experts? **WUK**

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