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An investigation into the prevention of blistering in post-operative wounds

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INTRODUCTION

Surgical patients are at risk of developing post-operative wound complications including blistering and infection.

Consequently stays in hospital could be lengthened; costs increase and morbidity/mortality rates can be adversely affected (Tustanowski 2009).

Blistering can cause increased pain, delayed healing and increased susceptibility to wound infection, as the integrity of the skin has been breached (Gupta et al, 2002). There is currently conjecture in the literature as to whether dressing choice has an effect on wound complication rate (Tustanowski 2009). Blistering after hip surgery caused by tape related injuries has been reported as 21.4% (Polatsch et al, 2004). In a quasi-experimental study (Jester et al, 2000) the incidence of blistering, using a variety of dressings, was reported as 13%. In a prospective study of patients undergoing hip or knee surgery, the post-operative blistering rate ranged from 6% to 24% depending on the dressing used (Cosker et al, 2005). The incidence of superficial wound problems, such as skin blistering, is a commonly reported problem, especially in orthopaedic surgery (Wright, 1994; Cosker et al, 2005).

METHOD

A rapid appraisal of the literature has been performed to determine current evidence regarding the prevention and management of post operative wound blistering. A prospective cohort study of patients undergoing orthopedic replacement joint surgery is currently being carried out, to assess incidence of wound blistering.

CONCLUSION

There is limited data and consensus opinion to the prevention of post operative wound blistering which suggests a need to develop evidence based/best practice guidance to assist practitioners to choose the most appropriate wound dressing that will help to reduce the incidence of post operative blistering.

RESULTS

A standard systematic search of the literature returned 137 articles related to wounds and healing. Through blind, two person peer review of the abstracts, 9 were identified to have direct relevance to wound blisters and prevention and/or treatment.

DISCUSSION

A limited amount of studies have examined the effect of different dressings on wound healing with no conclusive recommendations (Tustanowski 2009). Wound blistering could be associated with a number of factors; movement of the wound site; choice of dressing; tape use; age; gender; type of incision; medications; co-morbidity; cost-effectiveness of dressings (Tustanowski 2009). However an overall conclusion has not been reached, other than adherence to the accepted principles of good post-operative wound management, and standard properties of wound dressings. It is argued that calls for further comparative studies of wound dressings will only continue to provide equivocal results. Therefore it may be that the way forward is to achieve consensus between experts and practitioners as to the most clinical and cost effective dressings and post-operative wound management to prevent blistering and other complications.

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