INTRODUCTION

Costs and Consequences of Using Hydrofiber® Dressing and Gauze in the Management of Surgical Wound Healing

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Aims

- To determine the impact of variability and uncertainty surrounding the components of the models, probabilistic sensitivity analyses (1000 iterations of the model) were undertaken. This was performed by simultaneously varying the probabilities, resource use values and healing rates within the models.

Expected Outcomes and Costs of Care

- Thus, our finding that use of Hydrofiber® dressing rather than gauze is expected to reduce healthcare costs by $247 (4%) and $507 (4%) per patient respectively over 8 weeks (Figure 2b).

DISCUSSION

Use of Hydrofiber® dressing in surgical wounds healing by secondary intention is associated with a lower frequency of dressing changes compared to gauze dressing changes. Consequently, dressing surgical wounds healing by secondary intention with Hydrofiber® dressing instead of gauze is expected to reduce hospital resource utilization for alternative care and lead to a reduction in healthcare costs in both the UK and US. Hence, the purchase price of a wound dressing should not be used as an indication of the cost-effectiveness of a given method of surgical wound care.

CONCLUSIONS

- Our finding is that use of Hydrofiber® dressing rather than gauze is expected to reduce total management costs highlights the likely benefit of hydrofiber dressing in both the management of abscesses and other surgical wounds healing by secondary intention.

Figure 3. Expected costs of the different components of care associated with managing abscesses and other surgical wounds healing by secondary intention with Hydrofiber® dressing and gauze at 8 weeks in (a) the UK and (b) the US

- However, healing is affected by intrinsic and extrinsic factors that may result in complications, such as infection, wound dehiscence or the presence of foreign material. This can necessitate leaving a wound open to heal by secondary intention. Other surgical wounds that are not sutured, such as abscesses, are also left to heal by secondary intention.

METHODS

Wound Healing Rates

- A systematic literature search was performed to identify studies that reported healing rates for surgical wounds healing by secondary intention managed with Hydrofiber® dressing or gauze. The search strategy was not limited by year of publication but only by English language papers were included.

Figure 4. Expected range of costs for managing surgical wounds healing by secondary intention in (a) the UK and (b) the US

RESULTS

- The key cost drivers in the UK, for both abscesses and other surgical wounds, were hospitalisation and domiciliary nurse visits (Figure 3a). In the US, the key cost drivers were hospitalisation and transitional care (Figure 3b). In both countries, the cost of dressing was accounted for >20% of total management cost.

Figure 2. Expected healthcare costs of managing surgical wound healing by secondary intention with Hydrofiber® dressing and gauze at 8 weeks in (a) the UK and (b) the US

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- The aim of the study was to compare the costs and consequences of using Hydrofiber® dressing or gauze in the management of surgical wounds healing by secondary intention in the UK and US.