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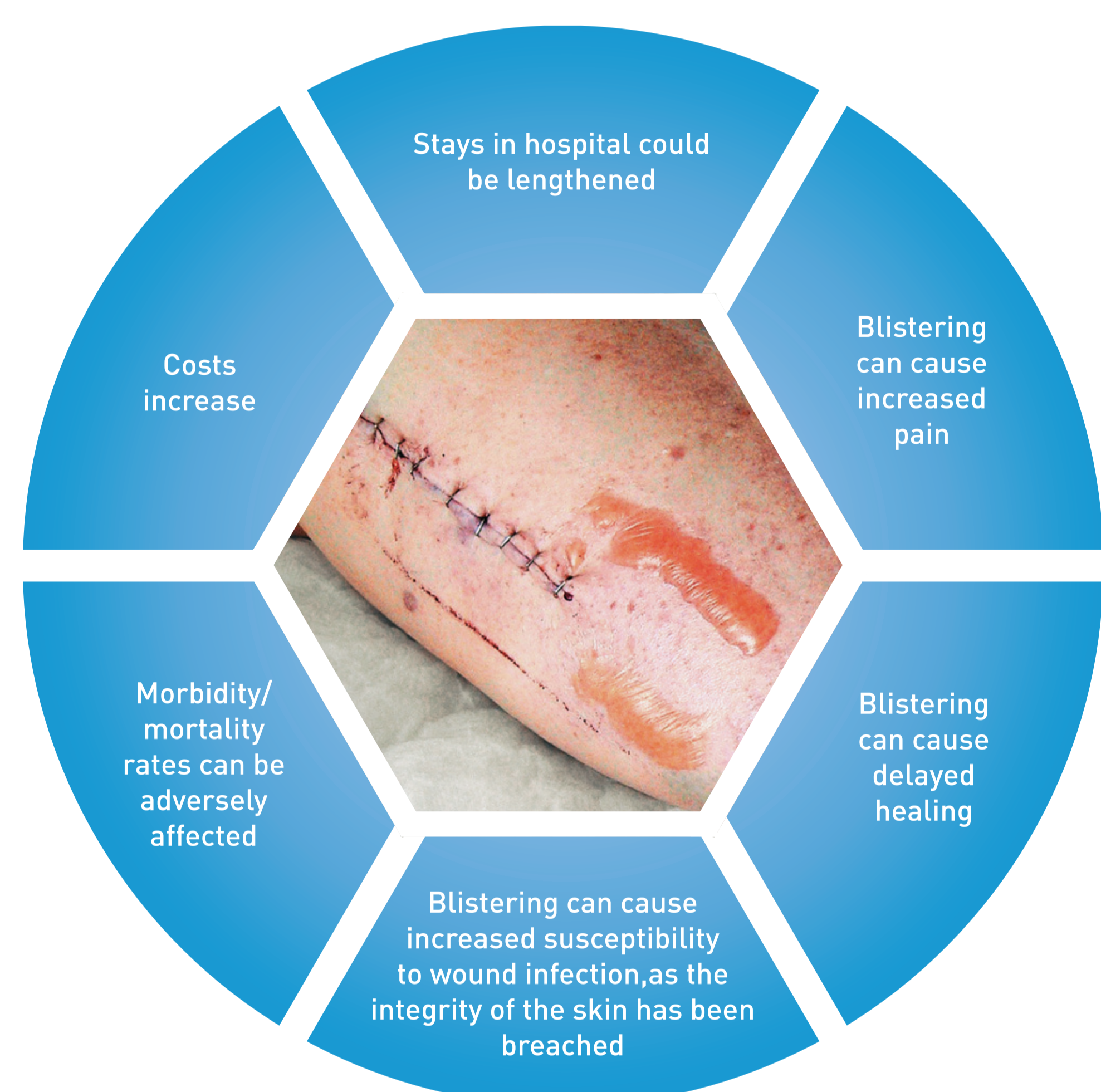
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AN INVESTIGATION INTO THE PREVENTION OF BLISTERING IN POST-OPERATIVE WOUNDS: RESULTS OF A DELPHI SURVEY

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INTRODUCTION

- Surgical patients are at risk of developing post-operative wound complications, including blistering and infection, especially following orthopaedic surgery^{1,2}
- Incidences of wound blistering have been reported in the literature of between 6 – 24%^{2,3,4,5}
- Wound blisters can increase wound pain, delay wound healing and increase the susceptibility to wound infection⁶
- Consequently, the length of an 'in patient' hospital stay can be prolonged, increasing costs and adversely affecting the morbidity/mortality rates⁶
- Currently, the literature is equivocal as to whether the choice of wound dressing has an effect on wound complication rates⁷



AIMS

To present the results of an online international 2 stage Delphi survey to establish a consensus expert opinion to consider the problems of wound blistering and to:

- Establish working clinical and cost-effective guidelines and benchmarks for the prevention and management of orthopaedic wound blistering
- Establish the ideal properties required in a dressing to prevent wound blistering

CONCLUSIONS

- The choice of post-operative wound dressing was the most important factor in the prevention of wound blister formation
- Nursing staff should be the first to assess a wound post-operatively and to choose the appropriate wound dressing
- The wound dressing should be left intact for as long as possible.
- An ideal wound dressing to prevent wound blister formation should: conform to the wound, be easy to apply, allow for swelling, be easy to remove and minimise pain on removal

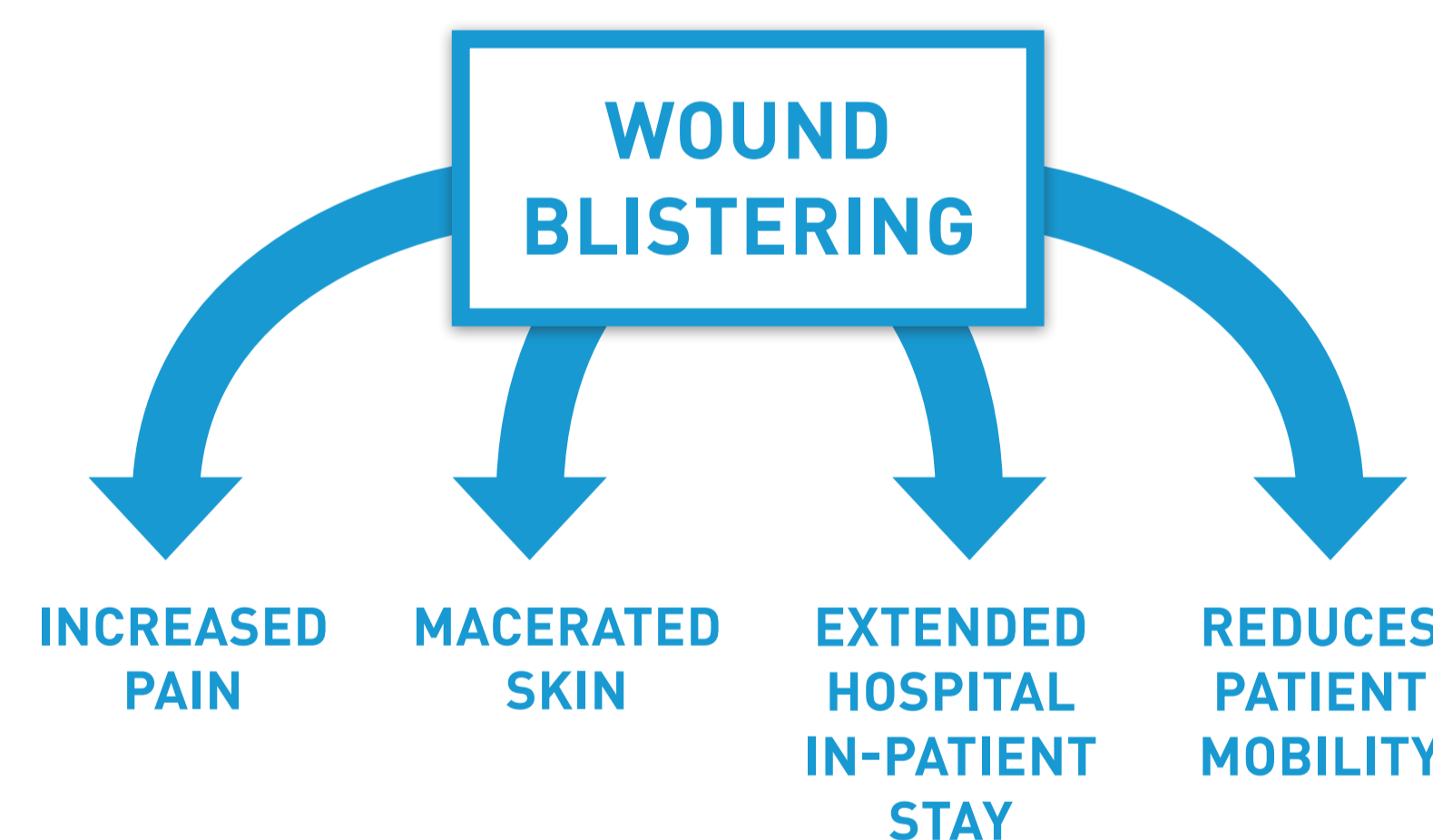
METHODS

- A survey questionnaire was developed using item pool analysis from national policy, prior published research and research group agreement/consensus
- Seventeen international, prospective participants were invited onto the Delphi panel
- Two rounds of the Delphi process were completed; the 1st and refined 2nd questionnaires were delivered via email
- Descriptive statistics relating to respondents opinions of treatment of wound blistering and wound dressing characteristics were derived for each data set independently; the results from the 2nd round analysis were additionally cross-checked against the results from the 1st round
- Inferential statistics were not derived for either round of the survey due to the small sample size

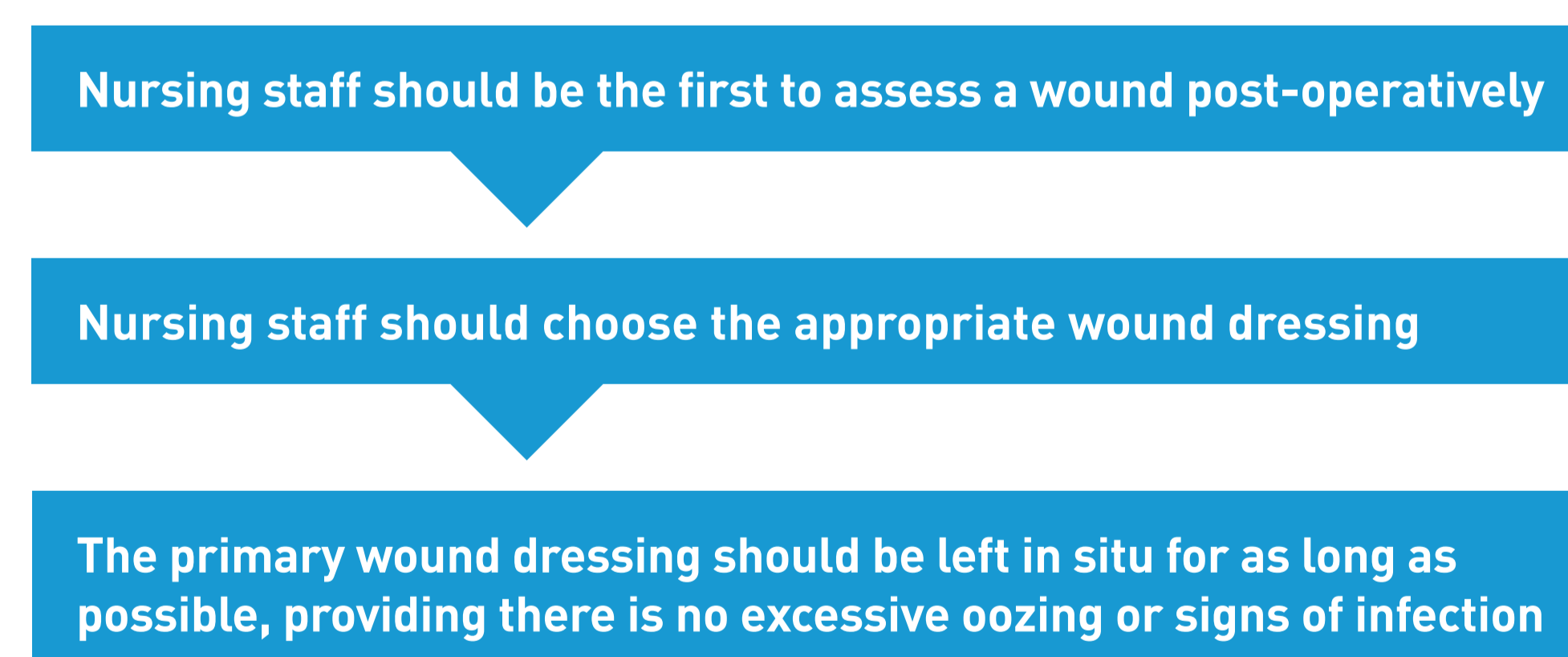
RESULTS

- Thirteen experts agreed to be involved in the survey; all completed the first round but only 9 completed the second questionnaire
- The mean proportion of wound blistering across all institutions was 15.5% (range 1 - 55%)
- The key findings are presented below

Problems associated with wound blisters



Management of wound blisters



The ideal wound dressing to help prevent the formation of wound blisters



DISCUSSION

At present, the literature contains a limited number of studies that have examined the effect of different dressings on post-operative wound healing, with no conclusive recommendations as to the most appropriate and effective dressing choice⁷.

This study endeavored 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.

Although this Delphi panel was relatively small, it does provide valuable data to help identify the consequences of wound blistering and the important factors that should be considered when choosing a wound dressing to help prevent blister formation.

For the full results of the Delphi survey, please refer to: Ousey, K., Gillibrand, W., Stephenson, J. Achieving international consensus for the prevention of orthopaedic wound blistering: results of a Delphi survey. *International Wound Journal* 2012; doi: 10.1111/j.1742-481X.2012.00965x

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