



## Enzymatic debridement in the treatment of partial and full thickness burns: clinical experience in 40 patients

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### Introduction

The removal of burn eschar is the cornerstone of modern burn care. Surgical debridement can be traumatic and notoriously results in over debridement<sup>1</sup>. Rapid, selective enzymatic debridement with Nexobrid is an alternative treatment modality. Nexobrid is a biological drug containing a mixture of proteolytic enzymes extracted from the stem of the *Ananas comosus* pineapple plant. Nexobrid has demonstrated in clinical studies to selectively remove burn eschar within 4 hours. Studies report, with statistical significance, earlier removal of burn eschar thereby assisting in earlier assessment of the wound bed. Nexobrid is an easy-to-use, topically-applied product that can be done at the bedside reducing the need for a GA. It has been reported to be of particular benefit in the management of technically difficult anatomical areas such as hands, elbows, knees, its selectively has been shown to reduce both the incidence of skin grafting as well as the TBSA requiring grafting<sup>2</sup>.

### Aim

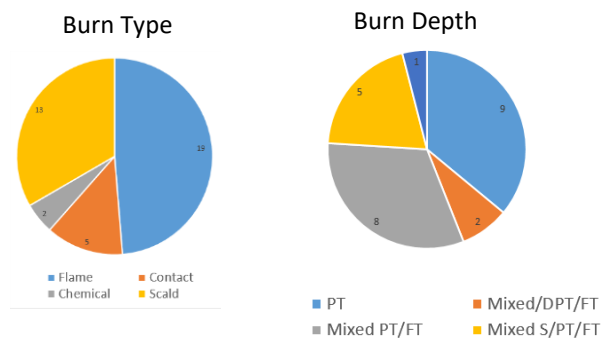
To review the clinical effects and benefits of using this modality of treatment in our burn unit.

### Method

Retrospective case note analysis of 40 patients undergoing Nexobrid treatment.

### Results

- 40 documented cases
- Male: Female 28:12
- Age range: 15-87 yrs, mode 29 yrs (n=5)



- Nexobrid was applied to 0.25% - 8% TBSA
- Areas to which Nexobrid applied included:  
Torso, limbs, neck, buttocks  
No facial /perineum applications
- Duration treatment: 3- 4.5 hrs
- Bleeding : Non-reported n= 35,  
mild bleeding n=3
- Days post burn Nexobrid application : 1-6  
Mean = 2.78, Mode = 1 & 3 (n=10)
- Poor debridement : n=3 (2 chemical burns,  
1 acute on chronic wound.
- Complication related to Nexobrid: n =1  
(pyrexia with confusion)



### Results continued

- Number grafted over Nexobrid treated area n=10, n=4 offered but declined
- Failure of graft to take n=1
- Infected wounds post Nexobrid n=2

### Conclusion

- We have found Nexobrid to be safe and effective in adequately debriding PT/FT burns
- Nexobrid allowed for early burn depth assessment and reduced the need for surgical debridement.
- The selected use of this product may significantly alter the acute management of partial and full thickness burn injuries.
- Regular audit and review of our Nexobrid patients is required to gain further insight into the utility of this product in our patients.

### References

1. Gurfinkel, R., Rosenberg, L., Cohen, S., Cohen, A., Barezovsky, A., Cagnano, E., & J Singer, A. (2010). Histological assessment of tangentially excised burn eschars. *Canadian Journal of Plastic Surgery*, 18(3), 33-36
2. Rosenberg, L., Krieger, Y., Bogdanov-Berezovski, A., Silberstein, E., Shoham, Y., & Singer, A. J. (2014). A novel rapid and selective enzymatic debridement agent for burn wound management: a multi-center RCT. *Burns*, 40(3), 466-474.