

19yr old male  
Self-inflicted burn.

Comparison between  
HRWD® and  
enzymatic dressing.

Potential of HRWD®  
as rapid method of  
debridement in burns  
management.

# Hydro-Responsive Wound Dressings in the treatment and management of a self-inflicted burn

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## Introduction

Self-inflicted burn injuries are infrequent but very much distressing. They are a result of social, environmental and individual factors. Self-inflicted burns are usually an outcome of mental illness, and acute phase schizophrenia is considered as one of the major precipitating factors.<sup>1</sup> The aim of this case study is to illustrate the effective use of Hydro-Responsive Wound Dressings (HRWD®) on a patient with a self-inflicted burn. HRWD® are an innovative approach to the treatment of wounds, where a harmonised, two-step therapy harnesses optimised hydration at all stages of the healing response to promote wound progression and healing.

We present a Case Study of a 19-year-old male with two wounds from a self-inflicted burn injury due to prolonged contact with a hot pipe to left forearm presenting to the Burn Service three weeks post injury with a total of approximately 0.2% Total Body Surface Area (TBSA)

## Method

It was decided to treat the two wounds with two different products to gain experience of using the HRWD®.

## Results

Although having successful results with the HRWD®, this patient was unfortunately offered a surgical procedure to directly close the injury in theatre by the medical team. The patient was then taken to theatre for wound closure, and the decision was made to surgically debride both areas and apply a skin graft. The patient's wounds went on to complete healing.

		Wound One inner HRWD®	Wound Two outer Enzymatic dressing
19/10/18	Wound Bed	Full thickness surrounding tissue healthy No exudate pain	Full thickness surrounding tissue healthy No exudate pain
	Goal	WBP reduce pain avoid Surgical intervention	WBP reduce pain avoid Surgical intervention
	Dressing changes	Every 3 days	Daily
22.10.18		Fully debrided	60% eschar remained

Wound 1



Wound 2



## Conclusion

In the authors clinical opinion if minor full thickness burns could be debrided topically and the need for surgical intervention eliminated this would have positive implications including:

- Reduce cost on treatment dressing changes verses costs associated with surgical debridement
- Theatre List Pressures
- Bed Pressures (no need to admit for surgery as patients can be treated as outpatient).
- A method of debridement when patients refuse or are unfit for surgery.

## References

1. J. Dhaka National Med. Coll. Hos. 2011; 18 (01): 49-57 49 Mental illness as a contributor to intentional self-inflicted suicidal burn injury. Nahid Shahan, Tanvir Chowdhury Turin, Nahid Romana, AFM Mohibur Rahman, Major Sharmin Hossain, Saifun Nahar  
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