

# FLAMINAL® IN THE MANAGEMENT OF TWO MEN WITH FACIAL FLASH BURNS

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## Introduction

Approximately 250,000 people sustain burn injuries in the UK each year with around 175,000 people attending A&E for treatment<sup>1</sup> and roughly 13,000 requiring hospital admission. Most burn wounds result from flame and scalds or by cold injury (frost-bite). Flash burns (usually to the face and upper limbs), are caused by an explosive ignition of a volatile substance: often related to the use of accelerants to light a fire or gas explosions. These burns can be extremely painful because the nerve endings remain intact, but exposed. This communication reviews the management of two patients admitted to a Regional Burns Centre after sustaining burns (in separate incidents) to their face due to flash injuries.

## Method

John (28 years of age) had a superficial facial burn (affecting only the epidermis): a superficial burn presents without blistering and heals rapidly.<sup>2</sup> However, Dave (46 years of age) had sustained superficial and superficial partial thickness burns to his face (in small places): superficial partial thickness burn involves the epidermis and part of the papillary dermis. These burns are characteristically pink/red with oedema and blisters present with healing occurring within seven to ten days.

The goals of local burn wound management are the prevention of desiccation of viable tissue and control of bacteria through moist wound healing, whilst controlling exudate and crucially pain.<sup>3</sup> It is important to optimise pain relief with the application of atraumatic dressings such as Flaminal® (Flen Health), which can help relieve pain from exposed nerve endings. Facial burns are not only distressing for patients but notoriously difficult areas to manage as virtually impossible to keep a dressing in place on the face.

Initially Flaminal® Forte (with a higher proportion of alginate) was utilised due to the levels of exudate resulting from the increased capillary permeability. A layer of Flaminal® was applied, with a further application after approximately 4 hours. After the initial 24-72 hours most burns are dry and need moisture to prevent the dermal remnants from drying out; in both cases the product was changed to Flaminal® Hydro. Further complications of burns are the risk of infection and pain; Flaminal®, an enzyme alginogel (glucose oxidase and lactoperoxidase), has a proven broad-spectrum antibacterial activity<sup>4</sup> thereby helping to control bioburden whilst the gel helps to soothe and relieve pain conforming and contouring to all areas of the face. Hydrogels have been suggested to be effective for managing burn wounds as they promote a warm, moist environment for regenerating healthy tissue or promoting autolysis.<sup>5,6</sup>

John



John - After treatment with Flaminal®



Dave



Dave - After treatment with Flaminal®



## Results

John's facial burns healed rapidly and he reported that the initial new application of Flaminal® was soothing, however as further Flaminal® was applied (over the original application), by the end of the day he felt that his face felt tight. The experience was similar for Dave but as his burns took longer to heal the team gently cleansed his face before applying a new layer of Flaminal® which prevented the feeling of facial tightness. Dave was able to reapply the Flaminal® himself thus enabling an earlier discharge and some control over his own care.

## Discussion

Burn injuries are classified according to the amount of tissue loss and can be described as partial (the most prevalent) or full thickness, with partial burns further divided into superficial, superficial partial thickness, and deep dermal. However they are described, it is unequivocal that burns are painful with a high risk of infection and cause patients a great deal of distress physically and emotionally. Their subsequent management is therefore pivotal to a good outcome for the patient.

Selecting a topical treatment that would be comfortable, conforming and soothing with a proven broad-spectrum antibacterial activity was important for both these men. Since burn pain can be augmented during dressing change using a product that was painless on application and removal was crucial.

## Conclusion

Flaminal® proved itself to be a product that could be utilised to manage exudate in the first 24-72 hours, but equally helped to prevent desiccation occurring as the wound progressed. The team were able to utilise Flaminal® throughout the healing trajectory of both burns with good outcomes for both patients in terms of pain relief and minimising the risk of infection.

### References

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