

## **Title: Management of Necrotizing Fasciitis with Advance Wound Product**

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**Background** : Necrotizing fasciitis is a severe bacterial infection of the skin, from the epidermis, dermis, subcutaneous fat layer to the muscular layer. It causes tissue gangrene in the affected area and can spread to other parts of the body.<sup>1</sup> Treatment is necrosis by surgical debridement in combination with empirical treatment.<sup>2</sup> Wound management is recommended using the “TIME”<sup>3</sup> principle. T: Tissue: Proper tissue preparation, debridement and foreign matter should be removed from the wound. I: Infection / inflammation: Bacteria produce biofilm to interfere with wound healing and appropriate antibiotics should be administered. M: Moisture: Wound with proper moisture will heal faster and use a wound dressing that can absorb secretions better. E: Edge: The edge of the wound should be dry, hard or necrotic. Using Advance Wound Product to remove Biofilm and Slough, the wound will heal better. If there is an appropriate environment

**Material & Methods** ; Thai male, 63-years old had the symptom for 5 days. He had been swollen right feet before going to the hospital Dx: Necrotizing fasciitis Rt. Foot U/D : DM Type 2 with HT with Anemia with AKI with Respiratory failure. Excisional Debridement has steps to treat the wound as follows:

1. Do the 1st Excisional Debridement surgery to remove necrosis.
2. Wet-to-dry dressings by using saline to wash the wound and then moisten the gauze with saline and put on wound dressing twice a day to keep the wound moist for 4 days.
3. Do the 2nd Excisional Debridement surgery to remove necrosis.
4. Wet-to-dry dressings by using saline to wash the wound and then moisten the gauze with Prontosan solution by soaking on the wound 15 minutes then put the gauze with Prontosan solution on the wound every day for 10 days for eliminating Biofilm and Slough.

**Results** : Do the 1st Excisional Debridement surgery to remove necrosis. Wet-to-dry dressings by using saline to wash the wound and then moisten the gauze with Prontosan solution by soaking on the wound 15 minutes then put the gauze with Prontosan solution on the wound every day for 10 days for eliminating Biofilm and Slough.

**Conclusion:** Surgical debridement is an intravenous antimicrobial drug in combination with Advance Wound Product. It eliminates Slough and Biofilm to prevent re-infection. It can control the wound surface to have an appropriate moisture balance, allowing the wound to heal as quickly as possible without organ damage.

## **Reference**

1. Creech CB. Myositis, pyomyositis, and necrotizing fasciitis. In: Long SS, Prober CG, Fischer M, editors. Principles and practice of pediatric infectious diseases. 5th ed. Philadelphia, PA: Elsevier; 2018. p. 2318-50.
2. Jamal N, Teach SJ. Necrotizing fasciitis. *Pediatr Emerg Care* 2011;27:1195-9.
3. Harries RL, Bosanquet DC, Harding KG. Wound bed preparation: TIME for an update. *Int Wound J* 2016; 13 (suppl. S3):8-14.