

# Use of Ultra-Thick Amniotic Membrane Allograft<sup>†</sup> in the Management of Necrotizing Fasciitis

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## Introduction

Necrotizing Fasciitis (NF) is a rapidly progressing soft-tissue infection involving necrosis of fascia and subcutaneous tissue. NF is associated with systemic toxicity and mortality rates as high as 35%.<sup>1, 2</sup> Immunosuppression, diabetes mellitus, alcoholism, end-stage renal disease, and chemotherapy have all been associated risk factors of increased mortality in NF.<sup>3</sup> Standard of care includes thorough surgical debridement of the necrotic tissue, which can result in deep cavity wounds that often require adjunctive therapies to supplement soft tissue healing. Cryopreserved Amniotic Membrane (AM) derived from umbilical cord is one such therapy that has been increasingly used wound management due to its immunomodulatory and pro-regenerative properties.<sup>4-6</sup>

## Methods

A case report of a patient with NF and a large cavity wound on the arm who was successfully treated with cryopreserved, ultra-thick amniotic membrane (AM) allograft<sup>†</sup>.

<sup>†</sup>Neox<sup>®</sup> 1K; BioTissue, Miami, FL

## Results

A 62-year-old female was admitted with left arm swelling and NF with septic shock, renal failure, and bacteremia. Medical history included immunosuppression for Crohn's Disease, chronic obstructive pulmonary disease, smoker, and chronic kidney disease. NF was previously treated with an initial incision and debridement followed by an extensive debridement with a negative pressure dressing applied to the 16x7 cm wound.

After a third debridement, the wound was partially closed, and an AM allograft<sup>†</sup> (8x3 cm) with standard compressive Jones dressing was applied over the large cavity wound (9x4 cm) with exposed muscle and fascia (Figure 1A at POD 4). At POD 19, epithelialization was noted (Figure 1B). By 7 weeks post-injury, the wound had completely epithelialized, and the patient demonstrated complete recovery of range-of-motion in the arm (Figure 1C).



## Discussion

Ultra-thick AM allograft<sup>†</sup> was shown to support wound closure and functional recovery in a patient with a deep cavity wound complicated by NF.

## References

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