Novel Four Layer Dressing Enhances Leg Ulcer Healing: Longitudinal Yarn Compression in Direct Contact with Wound Surface Delivers Effective Elastic Compression

Ischemic R Foot Ulcers x 18 Months

Problems
- Pain
- L BKA
- Paraplegia with knee contracture
- Tobacco use

Rx
- Aggressive bioburden control with acoustic debridement and hypochlorous acid irrigation
- Topical HEMA powder
- BioEngineered human skin substitute
- L YC four layer dressing

Outcome
- Ulcers heal 13 weeks after BioEngineered skin substitute and L YC compression

L Ankle Ulcers x 11 Months

Problems
- Wound comorbidities:
  - AODM
  - Pain
  - Refractory to weekly wound clinic treatment

Rx
- Aggressive bioburden control with acoustic debridement and hypochlorous acid irrigation
- Topical HEMA powder dressing
- L YC four layer dressing
- BioEngineered human skin substitute
- Cast padding
- Cobam

Outcome
- Ulcers heal 9 weeks after BioEngineered skin substitute and L YC Four Layer Dressing

L Calf Venous Leg Ulcers

Problems
- Wound comorbidities:
  - Pain
  - Poorly controlled AODM

Rx
- Aggressive bioburden control with acoustic debridement and hypochlorous acid irrigation
- Topical HEMA powder dressing
- BioEngineered human skin substitute
- L YC four layer dressing

Outcome
- Ulcers heal 11 weeks after BioEngineered skin substitute and L YC Four Layer Dressing

Venous R Leg Ulcers

Problems
- Wound comorbidities:
  - Pain
  - COPD on prednisone
  - Arterial occlusive disease
  - Pain precluded adequate debridement for several months

Rx
- Aggressive bioburden control with acoustic debridement and hypochlorous acid irrigation
- Topical HEMA powder dressing
- BioEngineered human skin substitute
- L YC four layer dressing

Outcome
- Ulcers heal 13 weeks after BioEngineered skin substitute and L YC Four Layer Dressing

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Note Longitudinal Yarn Compression (L YC)

- Paraplegia with knee contracture

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BioEngineered skin substitute

Ulcers heal 13 weeks after EdemaWear®, cast padding gauze over Apligraf: Polyester mesh, Post Op dressing day #14. Layers...

Apligraf placement. Textile is lifted up and powder is "snow faked" onto the healing surface after L YC stockinet in place. Textile is...

Hydroxyethyl Methacrylate powder, Altrazeal is applied to the ulcer...