A Smart Solution for Serious Wounds: Innovative Technology for Advanced Wound Healing

For over 20 years clinicians have trusted Integra Dermal Regeneration Template (IDRT) to treat wounds. IDRT has been evaluated in multiple major clinical trials and Integra's Ultra Pure Collagen™ base material has been used successfully in over 12 million procedures worldwide. We asked internationally renowned U.S. vascular surgeon John C. Lantis, MD, FACS, about his experience utilizing IDRT to save limbs and treat wounds.

Q1: Why do you choose IDRT to treat wounds?

The majority of biological skin substrates and wound treatment options revolve around re-epithelialization strategies to achieve wound closure. However, most partial- and full-thickness wounds involve injury to the dermis, which confers much of the functional and mechanical properties to the skin. Therefore, I choose to use a dermal regenerative substrate like IDRT because I believe it allows me to achieve more functional skin regeneration. Most, if not all, re-epithelialization strategies require multiple product applications, which translate to increased costs. I prefer to minimize application frequency as a more cost-effective solution for my patients and my practice.

Epithelialization is critical to achieve final wound closure, and secondary re-epithelialization procedures are necessary for many of the large wounds that I have treated with IDRT. In wounds smaller than 12 cm^2 (such as those in the recently published clinical study of IDRT treatment for diabetic foot ulcers[1]) these secondary epithelialization procedures can be avoided, as spontaneous epithelialization occurs over the regenerated dermis.

Q2: Can you describe a typical patient in your practice who would benefit from early intervention with IDRT?

Two groups common to my practice come to mind:

1. Patients with large, chronic, full-thickness wounds; patients that have had open wounds for more than 4 weeks and wounds > 40 cm^2. There is well accepted epidemiologic work that has shown that if a wound is not closed by 50% within the first four weeks, it has a less than 10% chance of closing within the first three months receiving only standard of care moist wound therapy. In my practice this group undergoes wide debridement and immediate, or almost immediate, treatment with a dermal regenerative substrate, like IDRT, to re-establish a normal dermis and promote wound closure.
2. Patients with chronic, diabetic foot ulcers, < 12 cm^2 and open for more than 4 weeks. The recently published IDRT study[1] is the largest published study to date on the use of biologic skin substitutes for the treatment of diabetic foot ulcers. The study reports that IDRT treatment significantly increases speed and incidence of healing in chronic diabetic foot wounds in patients with controlled blood sugars and the ability to offload appropriately.

Q3: Can you comment on the health economics of using IDRT?

85% of lower extremity amputations are preceded by open ulcerations, so theoretically reducing the number of open ulcerations and the duration in which these open ulcerations are present will reduce the number of amputations.

From a health economics standpoint, for lower extremity wound repair and for diabetic foot ulcers, a "one-and-done" approach for utilization of advanced regenerative products like IDRT makes both humanistic and financial sense. Many commercially available products require multiple applications over time, and this is costly to our system as each application requires reimbursement and incurs cost. There are patient factors as well. A patient and their family likely will prefer to have fewer product applications, since applications translate to clinic visits and procedures.

1. Driver, et al. Wound Rep Reg. 2015;23(6):891-900. http://onlinelibrary.wiley.com/doi/10.1111/wrr.12357/abstract.

*Note: The **FO**ot **U**lcer **N**ew **DE**rmal **R**eplacement **(FOUNDER)** Study was a multi-centre, randomized, controlled, parallel group clinical trial conducted under an Investigational Device Exemption. The trial randomized 307 patients across 32 sites.*

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