

The Worldwide Evidence Base for the Skin Substitute INTEGRA: A Systematic Review

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Abstract:

Introduction: Integra, a widely recognised dermal regeneration template, is commonly used in burn management. Available in bilayer, single-layer, and flowable wound matrix forms, this review summarises the clinical experiences with Integra, focusing on its bilayer form across various applications and indications.

Methods: A systematic literature search was conducted using the PubMed, Scopus, and Cochrane databases with terms such as "Integra" and "Dermal Regeneration Template." Studies were categorised based on area of application, study type, patient group, clinical indication, and evidence level.

Results: Out of 726 initially screened articles, 251 studies focusing on bilayer Integra met the criteria. The studies covered skin, head and neck, breast, trunk, pelvis, extremities, and basic science. Study designs included 25 analytical studies (5 RCTs and 20 observational), 189 descriptive articles, and 1 systematic review. Positive outcomes were reported in 84% of studies, neutral in 14%, and negative in 2%.

Conclusion: Integra has shown promising results over 35 years of clinical use. Most evidence is descriptive or non-randomized, highlighting the need for randomized controlled trials to establish its clinical efficacy.