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## Current Rehabilitation Updates in the Practice Management of Facial Scar Hypertrophy

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# Current Rehabilitation Updates in the Practice Management of Facial Scar Hypertrophy[1]

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Introduction: Rehabilitation management of burn scar hypertrophy involving the face and neck often poses unique challenges for the burn rehabilitation specialist. The physical challenges of creating and manufacturing a well fitting orthotic is a daunting task in and of itself. Coupled with psychosocial and societal implications of the patient, treatment can be severely impacted which limits long term functional outcomes. Fortunately, new advanced materials have emerged which can support the burn specialist in achieving goals and assist the patient in comfort and cosmetics while limiting the need for additional reconstructive procedures and maximizing functional post surgical outcomes.

Methods: A review of the burn rehabilitation specific literature coupled with a review of current treatment guidelines among burn therapists from North America was performed. Additionally, new technologies and materials were highlighted to assess current methodologies to improve patient outcomes.

Results: Current evidence supports the use of advanced materials and tools to assist the burn therapist in designing and manufacturing facial and neck scar management devices. In particular, thermoplastics with a silicone bonded membrane have shown significant advantages over traditional materials and have demonstrated key evidence for their use in daily practice. Critical factors of these materials include: Improved scar aesthetics utilizing silicone and pressure; improved contact and drape over irregular surfaces; and efficacy demonstrating increased tissue perfusion with wear and a sustained perfusion effect upon removal.

Discussion: Engineered silicone boned thermoplastic materials have improved current practice and outcomes for burn rehabilitation specialists. The use of these materials in practice has shown to support patient care and has also improved the design and methodology of traditional burn rehabilitation devices. Coupled with less invasive computerized tools, burn rehabilitation research is further demonstrating improved outcomes and clinical successes.

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