

Abstract Title:	Exploring Cost And Treatment Patterns During Hospitalizations For Thermal Burn Patients Undergoing Autografting In A Commercially Insured Population
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Objective:	<ol style="list-style-type: none"> 1) Characterize treatment patterns and healthcare resource utilization for thermal burn patients who underwent inpatient autografting in a commercially insured population in the United States. 2) Quantify index hospitalization healthcare costs by %TBSA within the same patient population.
Abstract:	<p>Introduction: Autografting is included in the current standard of care for severe burns; however, little is known about the treatment patterns and economic burden associated with thermal burns and inpatient autografting. This study aimed to fill this gap by assessing the treatment patterns, healthcare resource utilization (HCRU), and cost of care among thermal burn patients who underwent inpatient autografting in a large commercially insured population in the United States.</p> <p>Methods: The Truven Health MarketScan® Database was used to identify thermal burn patients who were treated with a first inpatient autograft between 01/01/2011 and 06/30/2016. The first admission was noted as the index hospitalization. Forty-five-day pre- and 6-month post-index continuous enrollment were required. Patient demographics, clinical characteristics, treatment patterns, HCRU, and total cost were reported.</p> <p>Results: Of 1,695 patients included in this analysis, mean age was 36.6 years (SD=18.5), 1,124 (66.3%) were males, 1,566 (92.4%) had some third degree or deep third degree burns, and 572 (33.7%) had ≥10% total body surface area (TBSA) burn injuries. The majority of burn sites were in upper or lower limbs (66.3% and 56.2%, respectively). During the index hospitalizations, mean overall length of stay (LOS) was 14.2 days (SD=18.8) (mean LOS: 7.8 days for <10% TBSA, 13.1 days for 10%–19% TBSA, 21.1 days for 20%–29% TBSA, and 42.8 days for ≥30% TBSA); mean total cost was \$133,613 (SD=\$260,552); 238 (14.0%) patients had nonautologous/homograft/heterograft; 526 (31.0%) patients received synthetic substitute; 6 (0.4%) patients had pedicle grafts or flaps procedures. 1,623 (95.8%) patients received debridement; 131 (7.7%)</p>

patients were treated with respiratory intubation and mechanical ventilation. 1,178 (69.5%) and 1,122 (66.2%) patients received physical therapy and occupational therapy, respectively. Approximately 64% of patients were admitted through emergency rooms (ER). During 45-day pre-index, 562 (33.2%) patients had burn-related outpatient ER visits; 236 (13.9%) patients had burn-related hospitalizations. 110 (6.5%) patients had all-cause 30-day readmissions. Among them, 67.3% were burn-related.

Conclusions: The economic burden of hospitalizations for thermal burn patients who were treated with autografting was substantial. Various forms of post-burn injury treatment along with autografting were used during the index hospitalizations, including debridement of the wound, infection, or burn, respiratory intubation and mechanical ventilation, and physical and/or occupational therapy. Consistent with previous studies, mean LOS and mean total medical costs increased as %TBSA affected by the burn injury increased in general.

