

JOINT EVENT

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Value of intensive care unit-based postoperative management for microvascular free flap reconstruction in head and neck surgery

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Background: Few studies have investigated the effect of postoperative care setting for microvascular free flap reconstruction on clinical outcomes and institution cost.

Purpose: The purpose of this study is to determine the value of non-ICU based postoperative management for microvascular free flap reconstruction for head and neck surgical defects.

Methodology: The methodology involved a retrospective cohort study comparing clinical outcomes and total surgical and downstream cost between two groups of adults who underwent vascularized free tissue transfer by a single surgeon. Postoperative management differed such that the first group recovered in a protocol driven, non-ICU setting and the second received care in a planned ICU admission. Descriptive statistics and cost analyses were performed to compare clinical outcomes and total surgical and downstream direct cost to the institution between the two patient groups. Categorical variables were compared using χ^2 test where appropriate.

Results: Among a total of 338 patients who underwent microvascular free flap reconstruction for head and neck surgical defects, there was no significant difference in patient characteristics, medical history, operative variables, and postoperative outcomes such as flap survival, reoperation, readmission, and postoperative complications between the postoperative ICU cohort (n=146) and protocol-driven, non-ICU cohort (n=192). However, average cost of care was significantly higher for patients who received ICU-based care versus non-ICU post-operative care ($p<.00001$). Specifically, room and board was 239% more costly for the planned ICU care group compared to the non-ICU setting ($p<.00001$).

Conclusions: Postoperative management following vascularized free tissue transfer in a non-ICU setting offers equivalent clinical outcomes to standard ICU-based management, while being less costly.

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