

Analysis of Factors that Predict Outcomes in Major head and Neck Reconstructions with Implementation of the National Flap Registry

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Introduction:

The complex nature of major head and neck reconstruction results in many variables that influences the outcomes for patients. The Irish National Flap Registry has been implemented since March 2020 to collect data relating to major reconstructive surgeries using free and pedicled flaps. We aim to analyse this data to predict outcomes for major head and neck reconstruction cases.

Methods:

Using the Irish National Flap Registry, a retrospective analysis was performed of all major reconstructions in head and neck surgery in GUH from March 2020 to March 2023. The primary outcome was the rate of flap survival. Patient co-morbidities and intra-operative details were collected to assess impact on flap survival. Secondary outcomes included complication rates and return to surgery (RTS).

Results:

51 cases were identified. Complete flap survival was 86%. Peripheral vascular disease and smoking were more prevalent in the flap failure group. End-to-side anastomosis and vein grafts were associated with a higher complication rate. Return to Surgery occurred in 21%. Higher rates of alcohol abuse, hypertension and type of anastomosis all increased RTS.

Conclusion:

Implementation of a National flap database helps predict success rates in head and neck reconstruction and highlights factors that impact on flap survival and patient complications.