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(2018) Monitoring of free flaps and reconstruction for oral cancer. *British Journal of Oral and Maxillofacial Surgery*, 56 (3). p. 236. ISSN 0266-4356

<https://doi.org/10.1016/j.bjoms.2018.01.008>

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## **Free flap monitoring and reconstruction for oral cancer**

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Key words: Patient concerns inventory, head and neck cancer, surgery

Clinical free flap monitoring is essential following reconstruction in head and neck cancer surgery. We read with interest the paper by Nazir et al (2017)<sup>1</sup> where the authors provided evidence relating to the patient experience, after reconstruction for oral cancer. It is of note that one third (34/106, 32%) reported disturbed sleep and almost all (99/101, 53%) were relieved when the monitoring changed from hourly to four-hourly. The authors suggested that clinical teams should consider reducing the frequency in the second night. This is one of the few papers in the literature reporting the patients experience relating to free flap monitoring and provided further insight in another aspect of the cancer journey.

The number of papers in the literature relating to real-time feedback from implantable Doppler has been rapidly increasing. The presence of a normal signal has been found to be a reliable indicator of perfusion in view of its high predictive value<sup>2</sup>. Our understanding of the advantages of implantable Doppler or implantable venous anastomotic flow couplers is increasing and more surgical teams are reliant on their use.

Following our recent experience of the use of implantable venous anastomotic flow couplers in high risk reconstructions (buried / osseocutaneous free flaps), we found that the positive and negative predictive values were extremely high, translating to very good clinical reliability. One possible option for consideration after 24 hours could be that the clinical team only monitors the device signal regularly and clinical examination can be performed only if there is evidence of flow compromise/disruption of flow signal or during ward rounds.

Further work with an appropriately designed and powered prospective multicentre randomised controlled study would better inform the clinical teams and provide an improved patient in hospital experience.

**Conflict of interest:** The authors have no conflict of interest to declare

## **References**

1. Patients' experience of the monitoring of free flaps after reconstruction for oral cancer. H Nazir, D Lowe, SN Rogers. *Br J Oral Maxillofac Surg.* 2017 (in press) <http://dx.doi.org/10.1016/j.bjoms.2017.10.005>
2. Rationale for the use of the implantable Doppler probe based on 7 years' experience. Ho MW, Cassidy C, Brown JS, Shaw RJ, Bekiroglu F, Rogers SN. *Br J Oral Maxillofac Surg.* 2014 Jul;52(6):530-4.