Head and Neck Reconstruction During the COVID-19 Pandemic – ISOMS position paper

There is a paucity of evidence to inform best practice for reconstruction of head and neck defects post ablative cancer surgery during the COVID-19 pandemic. We are reliant on word of mouth information from international colleagues and consensus opinion to guide us. The results of *CovidSURG Cancer – Head and Neck* are awaited and it is anticipated that this will provide some clarity on the risks to HCWs and patients associated with head and neck surgery (and microvascular reconstruction in particular) during this period.

Background Issues:

- Head and neck squamous cell carcinoma (HNSCC) is time sensitive disease and treatment should not be postponed or delayed without significant reason[1].
- There is a risk to HCWs of operating on patients with subclinical COVID- 19 (and a false negative test) especially where the surgery involves an aerosol generating procedure in the oral cavity, pharynx or larynx.
- There is also a high risk of COVID pneumonia and perioperative death in patients undergoing prolonged surgery during the incubation period of COVID-19[2]

Guidelines:

- Preoperative testing (swab and CT chest) and cocooning of patients is recommended in accordance with IHNS guidelines.
- Where microvascular reconstruction is anticipated to confer only a marginal functional or aesthetic benefit compared with less complex approaches (for example leaving the defect to granulate, prosthetic rehabilitation or regional flap reconstruction), free flap surgery should be avoided.
- Where there is a clear functional/aesthetic benefit anticipated with microvascular reconstruction in COVID negative patients, the reconstructive surgeon should proceed with free flap surgery using full PPE including FFP3 mask and appropriate eye protection. For more advanced disease/ complex defects, free tissue transfer allows a higher degree of latitude in achieving marginal clearance of tumours and a more predictable path of recovery and rehabilitation which can potentially reduce the risk of wound related complications that could increase the risk of exposure to COVID.
- It is recommended that detachment, inset and anastomosis of the flap is delayed for an hour after completion of an aerosol generating mucosal resection, if possible

- The oral and nasal cavities should be 'prepared' with Povidone-iodine solution and "sealed off" (with a sterile drape or large tagaderm dressing), during neck dissection and while the microvascular component of the surgery proceeds i.e. isolated when surgical access to the oral and/or nasal cavity is not required.
- It is likely that the greatest risk to HCWs is during the aerosol generating resection (especially if saws or rotary instruments are used), but the choice of flap to reconstruct the defect should not confer additional risk.
- Where safe, overnight intubation is preferable to tracheostomy[5]

1. Chaves A, Castro A, Marta G et al. Emergency changes in international guidelines on treatment for head and neck cancer patients during the COVID-19 pandemic. Oral Oncology 2020; 107: 1 – 3
2. Lei S, Jiang F, Su W et al. Clinical characteristics and outcomes of patients undergoing surgeries during the incubation period of COVID-19 infection. E Clinical Medicine 00 2020; 100331
3. Considerations on H&N during COVID-19, Irish Head and Neck Society; April 2020
4. Guidelines for microsurgery during the COVID-19 pandemic. Irish Microsurgery Special Interest Group; April 2020
5. BAHNO statement on COVID-19: initial guidance for head and neck cancer management during the Covid-19 pandemic. British Association of Head & Neck Oncologists; March 2020