

# Anaesthesia for maxillofacial surgery

Head and neck cancer accounts for 900,000 cases every year, with males significantly affected more than women ranging from 2:1 to 4:1 worldwide (1). Primary risk factors have not changed significantly—tobacco use, alcohol consumption, human papillomavirus (HPV) and Epstein-Barr virus (EBV) infection. Globally the incidence continues to rise, with some predictions up to a 30% increase annually in both developed and developing countries (2). Male incidence of oral and oropharyngeal cancer has declined in some countries/regions (Hong Kong 10.5%) whilst increasing in others (Japan 21.3%) (3). Five-year survival averages at 50% worldwide and there has been little change in mortality over the last decade, although this can vary across geographical location, tumour site and stage.

What remains clear is that most head and neck cancers are diagnosed at an advanced stage leading to particular challenges for anaesthesia. Judgement failure and lack of proper airway management plan are still significant causes of morbidity and even mortality (4). It is imperative anaesthetists use advanced knowledge, skills and techniques to improve outcome for these patients.

This series of articles have been written by anaesthetic clinicians experienced in head & neck anaesthesia focusing on a number of specific areas. Awake tracheal intubation is more frequently practiced than ever and needs to be in the armamentarium of all anaesthetists involved in the care of these patients. A variety of ventilation strategies can be utilised to allow a shared airway and optimise patient oxygenation. A backup plan must exist in case of failure of oxygenation and front of neck access must be implemented. Multiple extubation techniques can be used to allow smooth uneventful transition from positive pressure ventilation to awake spontaneous breathing. Enhanced recovery after surgery (ERAS) in head and neck surgery has been shown to reduce intensive care unit (ICU) admissions, shorter hospital stays, reduced opioid consumption and fewer overall complications in some centres (5).

How well these patients are managed by anaesthetists is difficult to measure, simply because successful intubation cannot be the sole indicator of anaesthetic care. The entire perioperative anaesthetic period needs to be managed well in order to avoid morbidity or mortality.

## Acknowledgments

*Funding:* None.

## Footnote

*Provenance and Peer Review:* This article was commissioned by the editorial office, *Journal of Oral and Maxillofacial Anesthesia* for the series “Anaesthesia for Maxillofacial Surgery”. The article did not undergo external peer review.

*Conflicts of Interest:* Both authors have completed the ICMJE uniform disclosure form (available at <https://joma.amegroups.com/article/view/10.21037/joma-23-26/coif>). The series “Anaesthesia for Maxillofacial Surgery” was commissioned by the editorial office without any funding or sponsorship. CJ serves as an unpaid editorial board member of *Journal of Oral and Maxillofacial Anesthesia* from November 2022 to September 2023 and an unpaid appointed officer and sits on the executive committee of the ERAS Society. CJ and BP served as the unpaid Guest Editors of the series. The authors have no other conflicts of interest to declare.

*Ethical Statement:* The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

*Open Access Statement:* This is an Open Access article distributed in accordance with the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 International License (CC BY-NC-ND 4.0), which permits the non-commercial replication and distribution of the article with the strict proviso that no changes or edits are made and the original work is properly cited (including links to both the formal publication through the relevant DOI and the license). See: <https://creativecommons.org/licenses/by-nc-nd/4.0/>.

## References

1. Global Cancer Observatory. International Agency for Research on Cancer. World Health Organization. Available online: <https://gco.iarc.fr/> (Accessed on January 23, 2023).
2. Sung H, Ferlay J, Siegel RL, et al. Global Cancer Statistics 2020: GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries. *CA Cancer J Clin* 2021;71:209-49.
3. Bosetti C, Carioli G, Santucci C, et al. Global trends in oral and pharyngeal cancer incidence and mortality. *Int J Cancer* 2020;147:1040-9.
4. Joffe AM, Aziz MF, Posner KL, et al. Management of Difficult Tracheal Intubation: A Closed Claims Analysis. *Anesthesiology* 2019;131:818-29.
5. Kiong KL, Vu CN, Yao CMKL, et al. Enhanced Recovery After Surgery (ERAS) in Head and Neck Oncologic Surgery: A Case-Matched Analysis of Perioperative and Pain Outcomes. *Ann Surg Oncol* 2021;28:867-76.



Bhavesh Patel



Chris Jones

**Bhavesh Patel, MB, BS, FRCA**

(Email: [bhavesh.patel@nhs.net](mailto:bhavesh.patel@nhs.net))

**Chris Jones<sup>^</sup>, MBBS, FRCA, MD(Res)**

(Email: [chrisjones9@nhs.net](mailto:chrisjones9@nhs.net))

*Department of Anaesthesia, Royal Surrey NHS Foundation Trust, Guildford, Surrey, UK*

**Keywords:** Anaesthesia; awake intubation; ventilation; enhanced recovery after surgery (ERAS)

Received: 25 August 2023; Accepted: 18 September 2023; Published online: 26 September 2023.

doi: 10.21037/joma-23-26

**View this article at:** <https://dx.doi.org/10.21037/joma-23-26>

doi: 10.21037/joma-23-26

**Cite this article as:** Patel B, Jones C. Anaesthesia for maxillofacial surgery. *J Oral Maxillofac Anesth* 2023;2:20.

<sup>^</sup> ORCID: 0000-0001-9047-6034.