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Enhanced Recovery After Surgery Pathways in Oral and Maxillofacial Surgery

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Enhanced recovery after surgery (ERAS) pathways were developed to optimize perioperative care, reduce hospital length of stay (LOS), and costs. ERAS protocols have become increasingly popular across various surgical specialties over the last several years.

Due to the recent COVID-19 pandemic, there has been a shortage of hospital beds. As a result, some hospitals have implemented policies to postpone elective surgeries that require a hospital admission while permitting elective day surgery procedures to continue. Efficient discharges, specifically same-day discharges, have become an important factor in determining which surgical services thrived during the COVID-19 pandemic.

Many oral and maxillofacial surgery patients are admitted after surgery. These practices have reduced the volume of procedures that oral and maxillofacial surgeons would otherwise be performing during the COVID-19 pandemic. One possible solution is to explore the implementation of ERAS protocols for oral and maxillofacial surgery procedures. There have been studies evaluating ERAS pathways for head and neck cancer surgeries by otolaryngology and plastic surgery.^{1,2} Other surgical specialties, such as breast surgery, have been able to safely discharge their patients the same day after surgery.³ As a result, many breast operations continued despite limitations of the COVID policies. There is no published literature, however, on the impact of ERAS protocols on oral and maxillofacial surgery-specific procedures. The authors propose that ERAS pathways may provide a way for select patients undergoing certain procedures, such as orthognathic procedures, isolated mandible fractures, or temporomandibular joint (TMJ) operations to be treated as day surgery procedures. ERAS pathways may offer an

opportunity to increase surgical volume, decrease costs, and improve patient satisfaction.

As with any operation, there may be safety concerns of discharging patients the same day. This can be mitigated by stringent patient selection, such as those with no comorbidities, goal-directed fluid management, multimodal pain control, ensuring family support at home, and patient education. Telephone calls and telemedicine would further permit closer follow-up without requiring the patient to present to the hospital unless indicated.

Finally, while this hospital bed shortage may be temporary, it is evident that surgical care is becoming increasingly outpatient based. The Centers for Medicare and Medicaid Services announced in November of 2020 a novel hospital delivery model, called “Acute Hospital Care at Home.”⁴ This new model provides higher level care to patients in their home – care that otherwise would have been provided in the traditional inpatient setting.⁴ This includes nursing services, twice daily in-person visits by a provider, laboratory testing, and medication administration for patients at home.⁴ Studies have shown this new model to be safer and less costly than historical inpatient care.⁴ Current trends suggest more surgical procedures may eventually be performed on an outpatient basis with postoperative care being provided in non-traditional settings (ie. the patient’s home).

In summary, implementation of ERAS principles to oral and maxillofacial surgery-specific procedures may offer opportunities to improve patient care, streamline perioperative services, reduce hospital LOS, and subsequent costs associated with traditional inpatient care. Formal evaluation of ERAS pathways, by evaluating readmission and mortality rates, will

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Conflict of Interest Disclosures: None of the authors have any relevant financial relationship(s) with a commercial interest. Dr Dodson is the associate editor for the Journal of Oral and Maxillofacial Surgery.

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Received May 12, 2021

Accepted May 12, 2021.

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0278-2391

<https://doi.org/10.1016/j.joms.2021.05.029>

be necessary to ensure safety and quality standards are met.

References

1. Højvig JH, Pedersen NJ, Charabi BW, et al. Microvascular reconstruction in head and neck cancer - basis for the development of an enhanced recovery protocol. *JPRAS Open* 26:91, 2020
2. Coyle MJ, Main B, Hughes C, et al. Enhanced recovery after surgery (ERAS) for head and neck oncology patients. *Clin Otolaryngol* 41:118, 2016
3. Jogerst K, Thomas O, Kosiorek HE, et al. Same-day discharge after mastectomy: breast cancer surgery in the era of ERAS[®]. *Ann Surg Oncol* 27:3436, 2020
4. Bryan AF, Levine DM, Tsai TC: Home hospital for surgery [e-pub ahead of print]. *JAMA Surg*, 2021. <https://doi.org/10.1001/jama-surg.2021.0597>. Accessed June 25, 2021