

# A Response to: ‘Biological Therapy and Oral Surgery: Safety Recommendations and Practices’

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Sir,

The integration of biological therapies into the treatment of chronic inflammatory, autoimmune, and oncological conditions has significantly improved patient outcomes. However, as Dinkova and Petrov [1] insightfully highlight in their recent review — ‘Biological Therapy and Oral Surgery: Safety Recommendations and Practices’, the intersection of these therapies with oral and maxillofacial surgery presents unique and complex clinical challenges. Their article maps out the perioperative considerations and potential complications associated with a broad range of biological agents, offering a valuable framework for clinicians managing patients undergoing dental procedures while receiving biologic treatments.

One of the major strengths of the article lies in its comprehensive pharmacological mapping. The authors categorize biological therapies by mechanism of action, clinical indications, pharmacokinetics, and perioperative considerations, which significantly enhances the clinician’s ability to tailor surgical planning based on specific agents. This information is particularly practical and could easily be adapted into decision-support tools used by oral surgeons, dentists, and rheumatologists.

The systematic evaluation of half-lives and proposed time intervals for dental procedures after the last dose of each biologic is another commendable feature of the review. The information in Table 2 [1] stands out as a highly pragmatic addition to clinical care and can guide individualized scheduling to minimize surgical complications. Furthermore, the authors delve into multidimensional risk analyses by addressing not only infection, but also complications such as hepatotoxicity, hematologic disorders, and osteonecrosis of the jaw (ONJ), all of which are pertinent in biologic-treated populations. Their inclusion of antimicrobial prophylaxis and ONJ prevention strategies reflects a nuanced, proactive approach to perioperative planning.

Despite these contributions, certain limitations should be acknowledged. The review would benefit from the inclusion of quantitative risk models to stratify patients based on comorbidities, biological agent class, and procedure type. The absence of case-based algorithms or clinical decision flowcharts makes the data-rich content less accessible for

direct application in high-volume clinical settings. Additionally, although biosimilars are increasingly replacing originator biologics in many therapeutic areas, the article does not sufficiently address the safety and pharmacodynamic profiles of these alternatives. Pediatric considerations are also underrepresented, despite the growing use of biologics in juvenile idiopathic arthritis and pediatric inflammatory bowel disease (IBD).

Looking forward, the field would benefit from longitudinal studies that assess real-world postoperative outcomes in patients on biologics, including infection rates, wound healing delays, and disease flare rates. Interdisciplinary standardization of perioperative management guidelines, involving dental, rheumatological, dermatological, and oncological specialties, is essential. Moreover, the use of pharmacogenetic testing and its application to the perioperative planning of biologic therapies represents a promising frontier for personalized medicine. Integrating these recommendations into electronic health records through decision-support modules could further ensure safe and consistent clinical practices.

In conclusion, Dinkova and Petrov’s review [1] is a valuable and timely contribution. As biologic therapies become ever more integral in treating a wide range of diseases, careful management of these agents around the time of oral surgery becomes increasingly important. Their article offers a thoughtful synthesis of available evidence and expert recommendations, setting the stage for more standardized, multidisciplinary approaches to care. Still, additional research and practical tools are needed to transform this growing knowledge base into real-time clinical decision-making that ensures the best outcomes for patients undergoing dental procedures while on biologic therapy.

## Reference

- [1] Dinkova AS, Petrov PG. Biological Therapy and Oral Surgery: Safety Recommendations and Practices. *Discovery Medicine*. 2025; 37: 442–457. <https://doi.org/10.24976/Discov.Med.202537194.37>.