CAPITOL CENTER FOR Oral & Maxillofacial Surgery, PLLC

6 Loudon Road, Suite 204
Concord, NH 03301
Tel: 603-225-0008

367 NH-120 Unit E1
Lebanon, NH 03766
Tel: 603-643-1700

129 Wilton Road
Peterborough, NH 03458
Tel: 603-784-5447

www.CCOralSurgery.com

RICHARD J. ROSATO, D.M.D.
Diplomate, American Board of Oral & Maxillofacial Surgery
PAYAL VERMA, D.M.D., M.P.H.
Diplomate, American Board of Oral & Maxillofacial Surgery
ERIC P. HOLMGREN, D.M.D., M.D.
Diplomate, American Board of Oral & Maxillofacial Surgery
MICHAEL W. COURTNEY, D.M.D., M.D.
Diplomate, American Board of Oral & Maxillofacial Surgery

Fall 2025 - A Quarterly Update

Dear Colleague,

We are happy to now be providing oral surgery services from the Monadnock region through the Capitol and up through the Upper Valley!! We appreciate your continued support, trust, and allowing us to care for your patients.

Dr.'s and Staff of Capitol Center of OMS

FDA Approves Novel Non-Opioid Treatment for Moderate to Severe Acute Pain

On January 30, 2025, the U.S. Food and Drug Administration approved Journavx (suzetrigine) 50 milligram oral tablets, a first-in-class non-opioid analgesic, for the treatment of moderate to severe acute pain in adults. Journavx reduces pain by targeting a pain-signaling pathway involving sodium channels in the peripheral nervous system, before pain signals reach the brain. *Journavx is the first drug to be approved in this new class of pain management medicines.*

The FDA has long supported the development of non-opioid pain treatment. As part of the FDA Overdose Prevention Framework, the agency has issued draft guidance aimed at encouraging the development of non-opioid analgesics for acute pain. The FDA has awarded grants to support the development and dissemination of clinical practice guidelines for managing acute pain conditions. The efficacy of Journavx was evaluated in two trials of acute surgical pain, one following abdominoplasty and the other following bunionectomy (see our accompanying abstract). Both trials demonstrated a statistically significant superior reduction in pain with Journavx compared to placebo.

"…approval of Journavx is an important public health milestone in acute pain management," said Jacqueline Corrigan-Curay, J.D., M.D., acting director of the FDA's Center for Drug Evaluation and Research. "A new non-opioid analgesic therapeutic class for acute pain offers an opportunity to mitigate certain risks associated with using an opioid for pain and provides patients with another treatment option. This action and the agency's designations to expedite the drug's development and review underscore FDA's commitment to approving safe and effective alternatives to opioids for pain management."

Augmented Intelligence in Oral and Maxillofacial Radiology

Swarna Yerebairapura, Math Ameli, et al.
Oral Surg Oral Med Oral Pathol Oral Radiol 2025 Aug;140(2):237-250

Artificial intelligence (AI) is transforming diagnostic imaging in dentistry. This systematic review evaluates existing literature on augmented intelligence in dentomaxillofacial radiology, focusing on its influence on human collaboration in interpreting dental imaging. A literature search across seven databases and gray literature was conducted. Studies evaluating clinician performance with AI-assistance were included, while reviews, surveys, and case reports were excluded. The QUADAS-2 tool assessed the risk of bias.

Sixteen studies assessed the influence of AI on radiographic interpretation. AI-assisted caries detection consistently improved accuracy, sensitivity, and specificity. Detection of apical pathoses and jaw lesion segmentation improved accuracy, reducing diagnostic time. Cephalometric landmark identification showed

continued on page 2

Augmented Intelligence...*continued*

increased accuracy, particularly for students. Soft tissue calcification detection improved accuracy, but sensitivity decreased.

Overall, augmented intelligence enhanced interobserver agreement and reduced diagnostic variability, with general dentists and students showing the greatest gains. Augmented intelligence enhances dental radiographic interpretation by improving tasks, particularly for less experienced clinicians, and positively influences clinical decision-making. *The authors point out the benefits of AI, but they conclude that AI performance remains inconsistent in challenging cases involving complex pathologies or varied imaging conditions. While it complements rather than replaces clinicians, further validation of AI's generalizability and reliability using larger, diverse datasets is necessary.*

Interdisciplinary Approaches to Restoring Single-Tooth Implants in the Esthetic Zone

Brian LeSage, Oded Bahat, et al.
J Esthet Restor Dent 2025 May;37(5):1219-1231

The purpose of this study was to briefly review and summarize significant clinical, functional, esthetic, and periodontal characteristics that are essential to multidisciplinary case analysis and treatment planning for single-tooth replacement in the esthetic zone with an implant-supported prosthesis. A patient's preoperative condition (e.g., bone quality/quantity, gingival biotype, macro-/micro-esthetic features) significantly affects the stability, function, and esthetics of the anticipated implant-supported prostheses and, therefore, must be comprehensively evaluated after acquiring thorough diagnostic data. Understanding the immediate and long-term implications of diagnostic findings before undertaking any procedures enables critical assessment and step-by-step execution of the most appropriate interventions, surgeries, and prosthetic designs for greater esthetic and functional treatment predictability.

Collaborative and interdisciplinary treatment planning among the restorative dentist, implant surgeon, and laboratory ceramist is the foundation for achieving successful outcomes when undertaking a single-tooth replacement with an implant-supported prosthesis in the esthetic zone. It enables the identification and skilled execution of specific procedures, selection and sequencing of dental implant-related surgeries and temporization techniques, and design and delivery of the ideal implant-supported prosthesis to satisfy the patient's and team's treatment objectives. *Critically informed differential treatment planning through multidisciplinary collaboration enhances treatment predictability, esthetic outcomes, and functional success while simultaneously reducing potential immediate and delayed complications, thereby helping to ensure the feasibility of achieving anticipated results.*

Comparative Effectiveness of Denosumab (Prolia) vs Alendronate (Fosamax) Among Postmenopausal Women with Osteoporosis

Jeffrey Curtis, Tarun Arora, et al.
J Bone Miner Res 2024 Aug 5;39(7):826-834

Although clinical trials have shown that denosumab significantly increases bone mineral density at key skeletal sites more than oral bisphosphonates, evidence is lacking from head-to-head randomized trials evaluating fracture outcomes. This study utilizes administrative claims data from Medicare fee-for-service beneficiaries to evaluate the comparative effectiveness of denosumab versus alendronate in reducing fracture risk among women with postmenopausal osteoporosis (PMO) in the US. Women with PMO ≥ 66 yr of age with no prior history of osteoporosis treatment, who initiated denosumab (n = 89 115) or alendronate (n = 389 536) from 2012 to 2018, were followed from treatment initiation until the first of a specific fracture outcome, treatment discontinuation or switch, end of study (December 31, 2019), or other censoring criteria. A weighted function was used to estimate the risk ratio associated with the use of denosumab compared with alendronate for hip, nonvertebral (NV; includes hip, humerus, pelvis, radius/ulna, other femur), non-hip nonvertebral (NHNV), hospitalized vertebral (HV), and major osteoporotic (MOP; consisting of NV and HV) fractures.

Overall, denosumab reduced the risk of MOP by 39%, hip by 36%, NV by 43%, NHNV by 50%, and HV fractures by 30% compared with alendronate. Denosumab reduced the risk of MOP fractures by 9% at year 1, 12% at year 2, 18% at year 3, and 31% at year 5. An increase in the magnitude of fracture risk reduction with increasing duration of exposure was also observed for other NV fracture outcomes. *The authors conclude that in almost half-a-million treatment-naive women with PMO, they observed clinically significant reductions in the risk of MOP, hip, NV, NHNV, and HV fractures for patients on denosumab compared with alendronate. Patients who remained on denosumab for longer periods of time experienced greater reductions in fracture risk.*