Pain and Anxiety Management

Year 4 — Bachelor of Dental Surgery

Reference and Resource List — Chapters 11.1 to 11.9

Supporting the MCQ, SBA, SAQ and flashcard question bank

BM Education FZE

Disclaimer
Questions in this bank were generated with the assistance of artificial intelligence and reviewed against the references listed. They are provided for educational revision only, are not a substitute for prescribed textbooks, clinical guidelines or supervised clinical training, and no warranty is given as to their accuracy or completeness.

References are presented in Vancouver style. Part 1 lists the core sources that apply across the whole subject; Part 2 lists, for each chapter, the relevant sections of those core texts together with sources specific to that chapter. Numbers in square brackets in Part 2 refer to the core list in Part 1.

PART 1 — CORE REFERENCES (ALL CHAPTERS)

1.1 Principal textbooks

1. Berman LH, Hargreaves KM, editors. Cohen's Pathways of the Pulp. 12th ed. St Louis: Elsevier; 2020.
2. Malamed SF. Handbook of Local Anesthesia. 7th ed. St Louis: Elsevier; 2020.
3. Malamed SF. Sedation: A Guide to Patient Management. 6th ed. St Louis: Elsevier; 2018.
4. Malamed SF. Medical Emergencies in the Dental Office. 8th ed. St Louis: Elsevier; 2022.
5. Miller CS, Rhodus NL, Treister NS, Stoopler ET, Kerr AR. Little and Falace's Dental Management of the Medically Compromised Patient. 10th ed. St Louis: Elsevier; 2023.
6. de Leeuw R, Klasser GD, editors. Orofacial Pain: Guidelines for Assessment, Diagnosis, and Management. 7th ed. Batavia (IL): Quintessence Publishing; 2023.
7. Okeson JP. Clinical Management of Temporomandibular Disorders and Occlusion. 9th ed. St Louis: Elsevier; 2026.
8. Milgrom P, Weinstein P, Heaton LJ. Treating Fearful Dental Patients: A Patient Management Handbook. 3rd ed. Seattle: Dental Behavioral Resources; 2009.

1.2 Landmark papers on pain mechanisms and anxiety measurement

9. Raja SN, Carr DB, Cohen M, Finnerup NB, Flor H, Gibson S, et al. The revised International Association for the Study of Pain definition of pain: concepts, challenges, and compromises. Pain. 2020;161(9):1976–82.
10. Melzack R, Wall PD. Pain mechanisms: a new theory. Science. 1965;150(3699):971–9.
11. Woolf CJ. Central sensitization: implications for the diagnosis and treatment of pain. Pain. 2011;152(3 Suppl):S2–15.
12. Newton JT, Buck DJ. Anxiety and pain measures in dentistry: a guide to their quality and application. J Am Dent Assoc. 2000;131(10):1449–57.
13. Humphris GM, Morrison T, Lindsay SJE. The Modified Dental Anxiety Scale: validation and United Kingdom norms. Community Dent Health. 1995;12(3):143–50.

1.3 Guidelines, prescribing and sedation standards

14. Carrasco-Labra A, Polk DE, Urquhart O, Aghaloo T, Claytor JW Jr, Dhar V, et al. Evidence-based clinical practice guideline for the pharmacologic management of acute dental pain in adolescents, adults, and older adults: a report from the American Dental Association Science and Research Institute, the University of Pittsburgh, and the University of Pennsylvania. J Am Dent Assoc. 2024;155(2):102–17.
15. Scottish Dental Clinical Effectiveness Programme. Drug Prescribing for Dentistry: dental clinical guidance. 3rd ed. Dundee: SDCEP; 2016. Available from: https://www.sdcep.org.uk
16. Joint Formulary Committee. British National Formulary. London: BMJ Group and Pharmaceutical Press; 2025 (updated online). Available from: https://bnf.nice.org.uk
17. Scottish Dental Clinical Effectiveness Programme. Conscious Sedation in Dentistry: dental clinical guidance. 3rd ed. Dundee: SDCEP; 2017. Available from: https://www.sdcep.org.uk
18. Intercollegiate Advisory Committee for Sedation in Dentistry. Standards for Conscious Sedation in the Provision of Dental Care. Version 1.1. London: Royal College of Surgeons of England; 2020. Available from: https://www.rcseng.ac.uk
19. American Society of Anesthesiologists Task Force on Moderate Procedural Sedation and Analgesia. Practice guidelines for moderate procedural sedation and analgesia 2018. Anesthesiology. 2018;128(3):437–79.
20. General Dental Council. Standards for the Dental Team. London: GDC; 2013. Available from: https://www.gdc-uk.org
21. Dental Council of India. Bachelor of Dental Surgery (BDS) Course Regulations, 2007 (as amended). New Delhi: DCI.

1.6 Key journals for currency

Anesthesia Progress · International Endodontic Journal · Journal of Endodontics · Journal of the American Dental Association · British Dental Journal · Dental Update · Journal of Oral & Facial Pain and Headache · Pain · Community Dental Health · European Journal of Oral Sciences

PART 2 — CHAPTER-SPECIFIC REFERENCES

Chapter 11.1 — Foundations of Pain and Anxiety in Dental Practice

11.1.1 Scope and objectives · 11.1.2 Definitions and key concepts · 11.1.3 Assessment frameworks

Core texts: [1] Chs. on diagnosis and on pulpal pain · [5] Ch. on physical evaluation and risk assessment · [6] Chs. on pain definitions, classification and assessment · [8] Chs. on the nature of dental fear and its assessment · [9] · [10] · [12] · [13] · [20] · [21]

Additional

- Corah NL. Development of a dental anxiety scale. J Dent Res. 1969;48(4):596.
- Wong DL, Baker CM. Pain in children: comparison of assessment scales. Pediatr Nurs. 1988;14(1):9–17.
- Armfield JM. The extent and nature of dental fear and phobia in Australia. Aust Dent J. 2010;55(4):368–77.
- Kleinknecht RA, Klepac RK, Alexander LD. Origins and characteristics of fear of dentistry. J Am Dent Assoc. 1973;86(4):842–8.
- Beauchamp TL, Childress JF. Principles of Biomedical Ethics. 8th ed. New York: Oxford University Press; 2019.
- General Dental Council. Preparing for practice: dental team learning outcomes for registration. London: GDC; 2015. Available from: https://www.gdc-uk.org

Chapter 11.2 — Understanding Dental Pain: Mechanisms and Diagnosis

11.2.1 Orofacial pain pathways · 11.2.2 Differentiating pain sources

Core texts: [1] Chs. on pulpal pain mechanisms, diagnosis and nonodontogenic toothache · [6] Chs. on orofacial pain classification, neuropathic pain and temporomandibular disorders · [7] Chs. on masticatory pain and TMD diagnosis · [10] · [11]

Additional

- International Classification of Orofacial Pain, 1st edition (ICOP). Cephalalgia. 2020;40(2):129–221.
- Hargreaves KM, Goodis HE, Tay FR, editors. Seltzer and Bender's Dental Pulp. 2nd ed. Chicago: Quintessence Publishing; 2012.
- Zakrzewska JM. Differential diagnosis of facial pain and guidelines for management. Br J Anaesth. 2013;111(1):95–104.
- Nixdorf DR, Moana-Filho EJ, Law AS, McGuire LA, Hodges JS, John MT. Frequency of persistent tooth pain after root canal therapy: a systematic review and meta-analysis. J Endod. 2010;36(2):224–30.
- Pigg M, Svensson P, Drangsholt M, List T. Seven-year follow-up of patients diagnosed with atypical odontalgia: a prospective study. J Orofac Pain. 2013;27(2):151–64.
- Sessle BJ. Peripheral and central mechanisms of orofacial inflammatory pain. Int Rev Neurobiol. 2011;97:179–206.
- Levin LG, Law AS, Holland GR, Abbott PV, Roda RS. Identify and define all diagnostic terms for pulpal health and disease states. J Endod. 2009;35(12):1645–57.

Chapter 11.3 — Local Anaesthesia for Pain Control

11.3.1 LA pharmacology essentials · 11.3.2 Topical anaesthesia · 11.3.3 Injection techniques · 11.3.4 Managing difficult anaesthesia ("hot tooth") · 11.3.5 LA complications and management

Core texts: [1] Ch. on pain control in endodontics · [2] Chs. on the drugs, the armamentarium, techniques of maxillary and mandibular anaesthesia, supplemental injection techniques and complications · [5] Chs. on cardiovascular disease and drug interactions with vasoconstrictors · [15] Section on local anaesthetics · [17]

Additional

- Reader A, Nusstein J, Drum M. Successful Local Anesthesia for Restorative Dentistry and Endodontics. 2nd ed. Batavia (IL): Quintessence Publishing; 2017.
- Becker DE, Reed KL. Essentials of local anesthetic pharmacology. Anesth Prog. 2006;53(3):98–108.
- Becker DE, Reed KL. Local anesthetics: review of pharmacological considerations. Anesth Prog. 2012;59(2):90–102.

- Meechan JG. Supplementary routes to local anaesthesia. Int Endod J. 2002;35(11):885–96.
- Katyal V. The efficacy and safety of articaine versus lignocaine in dental treatments: a meta-analysis. J Dent. 2010;38(4):307–17.
- Nagendrababu V, Duncan HF, Whitworth J, Nekoofar MH, Pulikkotil SJ, Veettil SK, et al. Is articaine more effective than lidocaine in patients with irreversible pulpitis? An umbrella review. Int Endod J. 2020;53(2):200–13.
- Aggarwal V, Singla M, Kabi D. Comparative evaluation of anesthetic efficacy of Gow-Gates mandibular conduction anesthesia, Vazirani-Akinosi technique, buccal-plus-lingual infiltrations, and conventional inferior alveolar nerve anesthesia in patients with irreversible pulpitis. Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2010;109(2):303–8.
- Hargreaves KM, Keiser K. Local anesthetic failure in endodontics: mechanisms and management. Endod Topics. 2002;1(1):26–39.
- Neal JM, Barrington MJ, Fettiplace MR, Gitman M, Memtsoudis SG, Mörwald EE, et al. The Third American Society of Regional Anesthesia and Pain Medicine practice advisory on local anesthetic systemic toxicity. Reg Anesth Pain Med. 2018;43(2):113–23.
- American Academy of Pediatric Dentistry. Use of local anesthesia for pediatric dental patients. In: The Reference Manual of Pediatric Dentistry. Chicago: AAPD; 2024. Available from: https://www.aapd.org/research/oral-health-policies--recommendations/

Chapter 11.4 — Analgesic Pharmacology in Dentistry

11.4.1 Paracetamol (acetaminophen) · 11.4.2 NSAIDs · 11.4.3 Opioids · 11.4.4 Multimodal analgesia · 11.4.5 Prescribing principles

Core texts: [1] Ch. on pharmacological management of endodontic pain · [5] Chs. on drug interactions, liver disease, renal disease and pregnancy · [14] · [15] Sections on analgesics · [16] Chs. on analgesics and on prescribing in pregnancy, hepatic and renal impairment · [20]

Additional

- Carrasco-Labra A, Polk DE, Urquhart O, Aghaloo T, Claytor JW Jr, Dhar V, et al. Evidence-based clinical practice guideline for the pharmacologic management of acute dental pain in children: a report from the American Dental Association Science and Research Institute, the University of Pittsburgh School of Dental Medicine, and the Center for Integrative Global Oral Health at the University of Pennsylvania. J Am Dent Assoc. 2023;154(9):814–25.
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- Hersh EV, Kane WT, O'Neil MG, Kenna GA, Katz NP, Golubic S, et al. Prescribing recommendations for the treatment of acute pain in dentistry. Compend Contin Educ Dent. 2011;32(3):22–30.
- Becker DE. Pain management: Part 1: managing acute and postoperative dental pain. Anesth Prog. 2010;57(2):67–78.
- Becker DE. Pain management: Part 2: pharmacologic management of chronic orofacial pain. Anesth Prog. 2010;57(3):114–18.
- World Health Organization. WHO Guidelines for the Pharmacological and Radiotherapeutic Management of Cancer Pain in Adults and Adolescents. Geneva: WHO; 2019. Available from: https://www.who.int/publications/i/item/9789241550390
- Medicines and Healthcare products Regulatory Agency. Opioids: risk of dependence and addiction. Drug Safety Update. 2020;14(2). Available from: https://www.gov.uk/drug-safety-update

Chapter 11.5 — Management of Acute Dental Pain Scenarios (Clinical Algorithms)

11.5.1 Pulpitis and apical periodontitis · 11.5.2 Acute apical abscess / cellulitis · 11.5.3 Pericoronitis pain · 11.5.4 Post-operative pain · 11.5.5 Post-endodontic flare-up · 11.5.6 Orofacial pain not of dental origin

Core texts: [1] Chs. on endodontic emergencies, pulpal and periapical disease and postoperative pain · [6] Chs. on neuropathic pain, TMD and sinus-related pain · [7] Ch. on the treatment of masticatory disorders · [14] · [15] Sections on antibiotics and analgesics · [16]

Additional

- Scottish Dental Clinical Effectiveness Programme. Management of Acute Dental Problems: guidance for healthcare professionals. Dundee: SDCEP; 2013. Available from: https://www.sdcep.org.uk
- Lockhart PB, Tampi MP, Abt E, Aminoshariae A, Durkin MJ, Fouad AF, et al. Evidence-based clinical practice guideline on antibiotic use for the urgent management of pulpal- and periapical-related dental pain and intraoral swelling: a report from the American Dental Association. J Am Dent Assoc. 2019;150(11):906–21.
- American Association of Endodontists. Guide to Clinical Endodontics. 6th ed. Chicago: AAE; 2016. Available from: https://www.aae.org
- American Association of Endodontists. Glossary of Endodontic Terms. 10th ed. Chicago: AAE; 2020. Available from: https://www.aae.org
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- Hupp JR, Ellis E III, Tucker MR. Contemporary Oral and Maxillofacial Surgery. 7th ed. St Louis: Elsevier; 2019.
- Blum IR. Contemporary views on dry socket (alveolar osteitis): a clinical appraisal of standardization, aetiopathogenesis and management. Int J Oral Maxillofac Surg. 2002;31(3):309–17.
- Ngeow WC, Lim D. Do corticosteroids still have a role in the management of third molar surgery? Adv Ther. 2016;33(7):1105–39.
- National Institute for Health and Care Excellence. Trigeminal neuralgia. Clinical Knowledge Summary. London: NICE; 2024. Available from: https://cks.nice.org.uk/topics/trigeminal-neuralgia/

Chapter 11.6 — Behavioural and Communication Strategies (Non-Pharmacological)

11.6.1 Building rapport and trust · 11.6.2 Anxiety-reduction techniques · 11.6.3 Needle phobia management · 11.6.4 Gag reflex management

Core texts: [2] Ch. on the psychology of local anaesthesia and atraumatic injection · [3] Chs. on non-pharmacological anxiety control · [8] Chs. on communication, tell-show-do, relaxation, systematic desensitisation and the gagging patient · [12] · [13] · [19]

Additional

- Armfield JM, Heaton LJ. Management of fear and anxiety in the dental clinic: a review. Aust Dent J. 2013;58(4):390–407.
- Appukuttan DP. Strategies to manage patients with dental anxiety and dental phobia: literature review. Clin Cosmet Investig Dent. 2016;8:35–50.
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- Dickinson CM, Fiske J. A review of gagging problems in dentistry: 2. Clinical assessment and management. Dent Update. 2005;32(2):74–80.

- American Academy of Pediatric Dentistry. Behavior guidance for the pediatric dental patient. In: The Reference Manual of Pediatric Dentistry. Chicago: AAPD; 2024. Available from: https://www.aapd.org/research/oral-health-policies--recommendations/

Chapter 11.7 — Pharmacological Anxiety Control (Sedation Overview)

11.7.1 Inhalation sedation (nitrous oxide/oxygen) · 11.7.2 Oral sedation · 11.7.3 IV sedation · 11.7.4 General anaesthesia in dentistry

Core texts: [3] Chs. on inhalation sedation, oral sedation, intravenous sedation and general anaesthesia · [5] Ch. on the medically compromised patient and sedation · [15] Section on sedation · [17] · [18] · [19]

Additional

- American Academy of Pediatric Dentistry. Use of nitrous oxide for pediatric dental patients. In: The Reference Manual of Pediatric Dentistry. Chicago: AAPD; 2024. Available from: https://www.aapd.org/research/oral-health-policies--recommendations/
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- Donaldson M, Donaldson D, Quarnstrom FC. Nitrous oxide-oxygen administration: when safety features no longer are safe. J Am Dent Assoc. 2012;143(2):134–43.
- Kapur A, Kapur V. Conscious sedation in dentistry. Ann Maxillofac Surg. 2018;8(2):320–3.
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- Ashley PF, Chaudhary M, Lourenço-Matharu L. Sedation of children undergoing dental treatment. Cochrane Database Syst Rev. 2018;12:CD003877.

Chapter 11.8 — Safety, Monitoring, and Medical Risk Considerations

11.8.1 Pre-sedation assessment basics · 11.8.2 Monitoring · 11.8.3 Drug interactions and special populations

Core texts: [3] Chs. on patient evaluation, monitoring and emergency preparedness · [4] Chs. on prevention and preparation · [5] Chs. on cardiovascular, pulmonary, renal and hepatic disease, pregnancy, and the older patient · [15] · [16] · [17] · [18] · [19]

Additional

- American Society of Anesthesiologists. ASA Physical Status Classification System. Schaumburg (IL): ASA; 2014 (amended 2020). Available from: https://www.asahq.org
- Joshi GP, Abdelmalak BB, Weigel WA, Harbell MW, Kuo CI, Soriano SG, et al. 2023 American Society of Anesthesiologists practice guidelines for preoperative fasting: carbohydrate-containing clear liquids with or without protein, chewing gum, and pediatric fasting duration — a modular update of the 2017 guidelines. Anesthesiology. 2023;138(2):132–51.
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- Scully C. Scully's Medical Problems in Dentistry. 7th ed. Edinburgh: Churchill Livingstone Elsevier; 2014.
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- Medicines and Healthcare products Regulatory Agency. Chlorhexidine: reminder of potential for hypersensitivity. Drug Safety Update. 2012;6(3):A1. Available from: https://www.gov.uk/drug-safety-update

Chapter 11.9 — Managing Anxiety-Related Emergencies (Chairside)

11.9.1 Vasovagal syncope · 11.9.2 Hyperventilation / panic attack · 11.9.3 Acute stress reactions

Core texts: [4] Chs. on vasodepressor syncope, hyperventilation and the differential diagnosis of unconsciousness · [5] Ch. on anxiety, psychiatric disorders and the stress reduction protocol · [8] Chs. on the acutely distressed patient · [3] Ch. on emergency preparedness

Additional

- Resuscitation Council UK. Quality standards for cardiopulmonary resuscitation practice and training: primary dental care. London: Resuscitation Council UK; 2020 (reviewed 2024). Available from: https://www.resus.org.uk/library/quality-standards-cpr/primary-dental-care
- Jevon P. Medical emergencies in the dental practice poster: revised and updated. Br Dent J. 2020;229(2):97–104.
- Scottish Dental Clinical Effectiveness Programme. Medical emergencies in dental practice. In: Practice Support Manual. Dundee: SDCEP; 2024. Available from: https://www.psm.sdcep.org.uk
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- Brignole M, Moya A, de Lange FJ, Deharo JC, Elliott PM, Fanciulli A, et al. 2018 ESC Guidelines for the diagnosis and management of syncope. Eur Heart J. 2018;39(21):1883–948.

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