Medical Emergencies in Dental Practice

Year 4 — Bachelor of Dental Surgery

Reference and Resource List — Chapters 12.1 to 12.10

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 on medical emergencies and the medically compromised patient

1. Malamed SF. Medical Emergencies in the Dental Office. 8th ed. St Louis: Elsevier; 2022.
2. 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.
3. Jevon P. Basic Guide to Medical Emergencies in the Dental Practice. 2nd ed. Chichester: Wiley Blackwell; 2014.
4. Greenwood M, Corbett I, editors. Dental Emergencies. Chichester: Wiley-Blackwell; 2012.
5. Scully C. Scully's Medical Problems in Dentistry. 7th ed. Edinburgh: Churchill Livingstone Elsevier; 2014.
6. Rushworth B, Kanatas A, editors. Oxford Handbook of Clinical Dentistry. 7th ed. Oxford: Oxford University Press; 2020.

1.2 Resuscitation and life-support guidelines

7. Resuscitation Council UK. Adult basic life support guidelines. London: Resuscitation Council UK; 2021. Available from: https://www.resus.org.uk/library/2021-resuscitation-guidelines/adult-basic-life-support-guidelines
8. 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
9. Olasveengen TM, Semeraro F, Ristagno G, Castren M, Handley A, Kuzovlev A, et al. European Resuscitation Council Guidelines 2021: Basic Life Support. Resuscitation. 2021;161:98–114.
10. Panchal AR, Bartos JA, Cabañas JG, Donnino MW, Drennan IR, Hirsch KG, et al. Part 3: Adult basic and advanced life support: 2020 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Circulation. 2020;142(16 Suppl 2):S366–468.
11. American Heart Association. 2025 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Circulation. 2025;152(16 Suppl 2). Available from: https://cpr.heart.org

1.3 Emergency drugs and prescribing

12. Joint Formulary Committee. British National Formulary: medical emergencies in the community (treatment summary). London: BMJ Group and Pharmaceutical Press; 2025 (updated online). Available from: https://bnf.nice.org.uk/treatment-summaries/medical-emergencies-in-the-community/
13. Scottish Dental Clinical Effectiveness Programme. Drug Prescribing for Dentistry: dental clinical guidance. 3rd ed. Dundee: SDCEP; 2016. Available from: https://www.sdcep.org.uk
14. Jevon P. Medical emergencies in the dental practice poster: revised and updated. Br Dent J. 2020;229(2):97–104.

1.4 Guidelines, regulatory and professional standards

15. 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/topics/medical-emergencies-and-life-support/medical-emergencies-in-dental-practice/
16. General Dental Council. Standards for the Dental Team. London: GDC; 2013. Available from: https://www.gdc-uk.org
17. General Dental Council. The Safe Practitioner: a framework of behaviours and outcomes for dental professional education. London: GDC; 2023. Available from: https://www.gdc-uk.org
18. American Society of Anesthesiologists. ASA Physical Status Classification System. Schaumburg (IL): ASA; 2014 (amended 2020). Available from: https://www.asahq.org
19. Dental Council of India. Bachelor of Dental Surgery (BDS) Course Regulations, 2007 (as amended). New Delhi: DCI.

1.6 Key journals for currency

British Dental Journal · Dental Update · Resuscitation · Circulation · European Heart Journal · Anesthesia Progress · Journal of Dental Anesthesia and Pain Medicine · Dental Clinics of North America · BMJ

PART 2 — CHAPTER-SPECIFIC REFERENCES

Chapter 12.1 — Foundations of Medical Emergencies in Dentistry

12.1.1 Scope and objectives · 12.1.2 The emergency approach (ABCDE) · 12.1.3 Prevention and risk reduction

Core texts: [1] Part 1 (Prevention and preparation), Chs. on prevention, preparation and the legal considerations · [2] Ch. on physical evaluation and risk assessment · [3] Chs. on prevention, the ABCDE approach and team preparation · [4] · [5] Ch. on medical assessment and risk · [6] Ch. on medically compromised patients · [12] · [13] · [14] · [15] · [16] · [17] · [18] · [19]

Additional

- Atherton GJ, McCaul JA, Williams SA. Medical emergencies in general dental practice in Great Britain. Part 1: their prevalence over a 10-year period. Br Dent J. 1999;186(2):72–9.
- Greenwood M, Meechan JG. General medicine and surgery for dental practitioners. Part 1: Cardiovascular system. Br Dent J. 2014;217(7):349–52.
- Greenwood M. Medical emergencies in dental practice: 1. The drug box, equipment and general approach. Dent Update. 2009;36(4):202–11.
- Resuscitation Council UK. The ABCDE approach. London: Resuscitation Council UK; 2021. Available from: https://www.resus.org.uk/library/abcde-approach
- Thim T, Krarup NHV, Grove EL, Rohde CV, Løfgren B. Initial assessment and treatment with the Airway, Breathing, Circulation, Disability, Exposure (ABCDE) approach. Int J Gen Med. 2012;5:117–21.
- Care Quality Commission. Dental mythbuster 4: drugs and equipment for a medical emergency. Newcastle upon Tyne: CQC; 2024. Available from: https://www.cqc.org.uk

Chapter 12.2 — Basic Life Support (BLS) for Dental Teams (Core Year 4 Competency)

12.2.1 Adult BLS sequence · 12.2.2 AED use · 12.2.3 Paediatric BLS · 12.2.4 Airway adjuncts

Core texts: [1] Ch. on cardiac arrest and Part on basic life support · [3] Chs. on basic life support, airway management and the use of an AED · [4] Ch. on cardiopulmonary resuscitation · [7] · [8] · [9] · [10] · [11] · [12] Section on training and life-support competence

Additional

- Greif R, Lockey A, Breckwoldt J, Carmona F, Conaghan P, Kuzovlev A, et al. European Resuscitation Council Guidelines 2021: Education for resuscitation. Resuscitation. 2021;161:388–407.
- Van de Voorde P, Turner NM, Djakow J, de Lucas N, Martinez-Mejias A, Biarent D, et al. European Resuscitation Council Guidelines 2021: Paediatric Life Support. Resuscitation. 2021;161:327–87.
- Resuscitation Council UK. Paediatric basic life support guidelines. London: Resuscitation Council UK; 2021. Available from: https://www.resus.org.uk/library/2021-resuscitation-guidelines/paediatric-basic-life-support-guidelines
- Perkins GD, Gräsner JT, Semeraro F, Olasveengen T, Soar J, Lott C, et al. European Resuscitation Council Guidelines 2021: Executive summary. Resuscitation. 2021;161:1–60.
- Soar J, Böttiger BW, Carli P, Couper K, Deakin CD, Djärv T, et al. European Resuscitation Council Guidelines 2021: Adult advanced life support. Resuscitation. 2021;161:115–51.
- Chapman TE, Cook S, Ingvarsson M, Jevon P. Basic life support and the use of an automated external defibrillator in the dental practice. Dent Update. 2023;50(4):315–22.

Chapter 12.3 — Emergency Drugs and Equipment in Dental Clinics

12.3.1 Emergency kit contents · 12.3.2 Equipment essentials · 12.3.3 Checking, storage and governance

Core texts: [1] Ch. on preparation (emergency drugs and equipment) · [2] Ch. on physical evaluation and risk assessment (office preparation) · [3] Ch. on emergency drugs and equipment · [4] · [6] · [8] Equipment and drug standards · [12] · [13] · [15]

Additional

- Resuscitation Council UK. Primary dental care: minimum equipment list for cardiopulmonary resuscitation. London: Resuscitation Council UK; 2020 (reviewed 2024). Available from: https://www.resus.org.uk/library/quality-standards-cpr/primary-dental-care-equipment-list
- Haas DA. Emergency drugs. Dent Clin North Am. 2002;46(4):815–30.
- Haas DA. Management of medical emergencies in the dental office: conditions in each country, the extent of treatment by the dentist. Anesth Prog. 2006;53(1):20–4.
- Jevon P. Updated guidance on medical emergencies and resuscitation in the dental practice. Br Dent J. 2012;212(1):41–3.
- British Compressed Gases Association. The safe storage, handling and use of medical gas cylinders. Code of Practice 44. Rev. 2. Derby: BCGA; 2016. Available from: https://www.bcga.co.uk

Chapter 12.4 — Syncope (Fainting) and Vasovagal Episodes

12.4.1 Causes in dental practice · 12.4.2 Recognition · 12.4.3 Management

Core texts: [1] Part on unconsciousness: Chs. on vasodepressor syncope, postural hypotension and the differential diagnosis of unconsciousness · [2] Ch. on physical evaluation and risk assessment · [3] Ch. on syncope · [4] Ch. on collapse · [5] · [6] · [12] · [16]

Additional

- Hutse I, Coppens M, Herbelet S, Seyssens L, Marks L. Syncope in dental practices: a systematic review on aetiology and management. J Evid Based Dent Pract. 2021;21(3):101581.
- Li JX, Ouanounou A. Syncope in dentistry: risk factors, preventive strategies, and management. J Dent Anesth Pain Med. 2026;26(1):29–40.
- 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.
- Shen WK, Sheldon RS, Benditt DG, Cohen MI, Forman DE, Goldberger ZD, et al. 2017 ACC/AHA/HRS guideline for the evaluation and management of patients with syncope. Circulation. 2017;136(5):e60–122.
- Greenwood M, Meechan JG. General medicine and surgery for dental practitioners. Part 5: Neurological disorders and syncope. Br Dent J. 2014;217(12):701–6.

Chapter 12.5 — Hypoglycaemia (Diabetic Emergency)

12.5.1 Causes in dental settings · 12.5.2 Recognition · 12.5.3 Management

Core texts: [1] Part on altered consciousness: Ch. on diabetes mellitus (hyperglycaemia and hypoglycaemia) · [2] Ch. on diabetes mellitus · [3] Ch. on hypoglycaemia · [4] · [5] Ch. on endocrine disease · [12] · [13] Hypoglycaemia · [16]

Additional

- American Diabetes Association Professional Practice Committee. 6. Glycemic goals, hypoglycemia, and hyperglycemic crises: Standards of Care in Diabetes—2026. Diabetes Care. 2026;49(Suppl 1):S132–49.
- Joint British Diabetes Societies for Inpatient Care. The hospital management of hypoglycaemia in adults with diabetes mellitus. 4th ed. London: JBDS-IP; 2023. Available from: https://www.diabetes.org.uk/for-professionals/improving-care/good-practice/jbds
- Lowe RN, Williams B, Claus LW. Diabetes: how to manage patients experiencing hypoglycaemia. Drugs Context. 2022;11:2021-9-11.
- Cryer PE, Axelrod L, Grossman AB, Heller SR, Montori VM, Seaquist ER, et al. Evaluation and management of adult hypoglycemic disorders: an Endocrine Society clinical practice guideline. J Clin Endocrinol Metab. 2009;94(3):709–28.

- International Hypoglycaemia Study Group. Glucose concentrations of less than 3.0 mmol/L (54 mg/dL) should be reported in clinical trials: a joint position statement of the American Diabetes Association and the European Association for the Study of Diabetes. Diabetes Care. 2017;40(1):155–7.
- Greenwood M, Meechan JG. General medicine and surgery for dental practitioners. Part 3: Endocrine disorders. Br Dent J. 2014;217(9):497–502.

Chapter 12.6 — Asthma Attack and Acute Respiratory Distress

Triggers and prevention in the dental setting · Recognition of acute asthma and respiratory distress · Immediate management: bronchodilator, oxygen and escalation

Core texts: [1] Part on respiratory distress: Chs. on airway obstruction, hyperventilation, asthma and the differential diagnosis of respiratory distress · [2] Ch. on pulmonary disease · [3] Chs. on asthma and hyperventilation · [4] · [5] Ch. on respiratory disease · [12] · [13] Asthma · [16]

Additional

- Global Initiative for Asthma. Global Strategy for Asthma Management and Prevention: 2025 update. Fontana (WI): GINA; 2025. Available from: https://ginasthma.org
- National Institute for Health and Care Excellence, British Thoracic Society, Scottish Intercollegiate Guidelines Network. Asthma: diagnosis, monitoring and chronic asthma management (BTS, NICE, SIGN). NICE guideline NG245. London: NICE; 2024. Available from: https://www.nice.org.uk/guidance/ng245
- British Thoracic Society, Scottish Intercollegiate Guidelines Network. British guideline on the management of asthma. SIGN 158. Edinburgh: SIGN; 2019.
- O'Driscoll BR, Howard LS, Earis J, Mak V; British Thoracic Society Emergency Oxygen Guideline Group. BTS guideline for oxygen use in adults in healthcare and emergency settings. Thorax. 2017;72(Suppl 1):ii1–90.
- Reddel HK, Bacharier LB, Bateman ED, Brightling CE, Brusselle GG, Buhl R, et al. Global Initiative for Asthma Strategy 2021: executive summary and rationale for key changes. Eur Respir J. 2022;59(1):2102730.
- Greenwood M, Meechan JG. General medicine and surgery for dental practitioners. Part 2: Respiratory system. Br Dent J. 2014;217(8):427–31.

Chapter 12.7 — Anaphylaxis and Severe Allergic Reactions

12.7.1 Common triggers in dentistry · 12.7.2 Recognition · 12.7.3 Management

Core texts: [1] Part on drug-related emergencies: Chs. on allergy and the differential diagnosis of drug-related emergencies · [2] Ch. on allergy · [3] Ch. on anaphylaxis · [4] · [5] Ch. on allergy and immunological disease · [12] · [13] Anaphylaxis · [16]

Additional

- Resuscitation Council UK. Emergency treatment of anaphylaxis: guidelines for healthcare providers. London: Resuscitation Council UK; 2021. Available from: https://www.resus.org.uk/library/additional-guidance/guidance-anaphylaxis
- Cardona V, Ansotegui IJ, Ebisawa M, El-Gamal Y, Fernandez Rivas M, Fineman S, et al. World Allergy Organization anaphylaxis guidance 2020. World Allergy Organ J. 2020;13(10):100472.
- Muraro A, Worm M, Alviani C, Cardona V, DunnGalvin A, Garvey LH, et al. EAACI guidelines: anaphylaxis (2021 update). Allergy. 2022;77(2):357–77.
- Shaker MS, Wallace DV, Golden DBK, Oppenheimer J, Bernstein JA, Campbell RL, et al. Anaphylaxis — a 2020 practice parameter update, systematic review, and GRADE analysis. J Allergy Clin Immunol. 2020;145(4):1082–123.
- Pemberton MN. Allergy to chlorhexidine. Dent Update. 2016;43(3):272–4.
- 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

Chapter 12.8 — Seizures (Epileptic and Non-epileptic)

12.8.1 Triggers in dental settings · 12.8.2 Recognition · 12.8.3 Management

Core texts: [1] Ch. on seizures and Ch. on drug overdose reactions (local anaesthetic toxicity) · [2] Ch. on neurologic disorders · [3] Ch. on epileptic seizures · [4] · [5] Ch. on neurological disease · [12] · [13] Epileptic seizures · [16]

Additional

- National Institute for Health and Care Excellence. Epilepsies in children, young people and adults. NICE guideline NG217. London: NICE; 2022. Available from: https://www.nice.org.uk/guidance/ng217
- Fisher RS, Cross JH, French JA, Higurashi N, Hirsch E, Jansen FE, et al. Operational classification of seizure types by the International League Against Epilepsy: position paper of the ILAE Commission for Classification and Terminology. Epilepsia. 2017;58(4):522–30.
- Trinka E, Cock H, Hesdorffer D, Rossetti AO, Scheffer IE, Shinnar S, et al. A definition and classification of status epilepticus: report of the ILAE Task Force on Classification of Status Epilepticus. Epilepsia. 2015;56(10):1515–23.
- Glauser T, Shinnar S, Gloss D, Alldredge B, Arya R, Bainbridge J, et al. Evidence-based guideline: treatment of convulsive status epilepticus in children and adults: report of the Guideline Committee of the American Epilepsy Society. Epilepsy Curr. 2016;16(1):48–61.
- 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.
- Bryant T, Greenwood M. Epilepsy and the dental patient. Dent Update. 2016;43(5):443–8.

Chapter 12.9 — Angina, Acute Coronary Syndrome and Myocardial Infarction

12.9.1 Recognition · 12.9.2 Angina management · 12.9.3 Suspected MI / ACS management

Core texts: [1] Part on chest pain: Chs. on angina pectoris, acute myocardial infarction and the differential diagnosis of chest pain · [2] Ch. on ischemic heart disease · [3] Chs. on angina and myocardial infarction · [4] · [5] Ch. on cardiovascular disease · [12] · [13] Cardiac emergencies · [16]

Additional

- Rao SV, O'Donoghue ML, Ruel M, Rab T, Tamis-Holland JE, Alexander JH, et al. 2025 ACC/AHA/ACEP/NAEMSP/SCAI guideline for the management of patients with acute coronary syndromes. Circulation. 2025;151(13):e771–862.
- Byrne RA, Rossello X, Coughlan JJ, Barbato E, Berry C, Chieffo A, et al. 2023 ESC Guidelines for the management of acute coronary syndromes. Eur Heart J. 2023;44(38):3720–826.
- National Institute for Health and Care Excellence. Acute coronary syndromes. NICE guideline NG185. London: NICE; 2020. Available from: https://www.nice.org.uk/guidance/ng185
- National Institute for Health and Care Excellence. Recent-onset chest pain of suspected cardiac origin: assessment and diagnosis. Clinical guideline CG95. London: NICE; 2010 (updated 2016). Available from: https://www.nice.org.uk/guidance/cg95
- Thygesen K, Alpert JS, Jaffe AS, Chaitman BR, Bax JJ, Morrow DA, et al. Fourth universal definition of myocardial infarction (2018). Eur Heart J. 2019;40(3):237–69.
- Lott C, Truhlář A, Alfonzo A, Barelli A, González-Salvado V, Hinkelbein J, et al. European Resuscitation Council Guidelines 2021: Cardiac arrest in special circumstances. Resuscitation. 2021;161:152–219.

Chapter 12.10 — Stroke (CVA/TIA): Recognition and Immediate Response

12.10.1 Recognition (FAST) · 12.10.2 Management

Core texts: [1] Part on altered consciousness: Ch. on cerebrovascular accident · [2] Ch. on neurologic disorders (stroke) · [3] Ch. on stroke · [4] · [5] Ch. on neurological disease · [12] · [13] · [16]

Additional

- National Institute for Health and Care Excellence. Stroke and transient ischaemic attack in over 16s: diagnosis and initial management. NICE guideline NG128. London: NICE; 2019 (updated 2022). Available from: https://www.nice.org.uk/guidance/ng128

- Intercollegiate Stroke Working Party. National Clinical Guideline for Stroke for the UK and Ireland. London: Royal College of Physicians; 2023. Available from: https://www.strokeguideline.org
- Powers WJ, Rabinstein AA, Ackerson T, Adeoye OM, Bambakidis NC, Becker K, et al. Guidelines for the early management of patients with acute ischemic stroke: 2019 update to the 2018 guidelines. Stroke. 2019;50(12):e344–418.
- Berge E, Whiteley W, Audebert H, De Marchis GM, Fonseca AC, Padiglioni C, et al. European Stroke Organisation (ESO) guidelines on intravenous thrombolysis for acute ischaemic stroke. Eur Stroke J. 2021;6(1):I–LXII.
- Harbison J, Hossain O, Jenkinson D, Davis J, Louw SJ, Ford GA. Diagnostic accuracy of stroke referrals from primary care, emergency room physicians, and ambulance staff using the face arm speech test. Stroke. 2003;34(1):71–6.
- Sacco RL, Kasner SE, Broderick JP, Caplan LR, Connors JJ, Culebras A, et al. An updated definition of stroke for the 21st century: a statement for healthcare professionals from the American Heart Association/American Stroke Association. Stroke. 2013;44(7):2064–89.

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