Forensic Dentistry (Introductory)

Bachelor of Dental Surgery — Introductory Module

Reference and Resource List — Chapters 1 to 13

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 the additional sources specific to each chapter, which should be read alongside the core list.

PART 1 — CORE REFERENCES (ALL CHAPTERS)

1.1 Principal forensic odontology texts

1. Senn DR, Weems RA, editors. Manual of Forensic Odontology. 5th ed. Boca Raton (FL): CRC Press; 2013.
2. Taylor J, Kieser J, editors. Forensic Odontology: Principles and Practice. Chichester: Wiley Blackwell; 2016.
3. Adams C, Carabott R, Evans S, editors. Forensic Odontology: An Essential Guide. Chichester: Wiley Blackwell; 2014.
4. Bowers CM. Forensic Dental Evidence: An Investigator's Handbook. 2nd ed. San Diego (CA): Academic Press; 2011.
5. Pretty IA, Sweet D. A look at forensic dentistry - Part 1: the role of teeth in the determination of human identity. Br Dent J. 2001;190(7):359-66.
6. Sweet D, Pretty IA. A look at forensic dentistry - Part 2: teeth as weapons of violence - identification of bitemark perpetrators. Br Dent J. 2001;190(8):415-8.

1.2 Forensic medicine, pathology and anthropology

7. Payne-James J, Jones R, editors. Simpson's Forensic Medicine. 14th ed. Boca Raton (FL): CRC Press; 2019.
8. Saukko P, Knight B. Knight's Forensic Pathology. 4th ed. Boca Raton (FL): CRC Press; 2015.
9. Blau S, Ubelaker DH, editors. Handbook of Forensic Anthropology and Archaeology. 2nd ed. London: Routledge; 2016.

1.3 Supporting dental science, anatomy and imaging

10. Nanci A. Ten Cate's Oral Histology: Development, Structure, and Function. 10th ed. St Louis (MO): Elsevier; 2024.
11. Berkovitz BKB, Holland GR, Moxham BJ. Oral Anatomy, Histology and Embryology. 5th ed. Edinburgh: Elsevier; 2017.
12. Nelson SJ. Wheeler's Dental Anatomy, Physiology and Occlusion. 11th ed. St Louis (MO): Elsevier; 2020.

13. Lam EWN, Mallya SM, editors. White and Pharoah's Oral Radiology: Principles and Interpretation. 9th ed. St Louis (MO): Elsevier; 2025.
14. Whaites E, Drage N. Essentials of Dental Radiography and Radiology. 6th ed. Edinburgh: Elsevier; 2021.

1.4 Identification, disaster victim identification and technical standards

15. INTERPOL. Disaster Victim Identification Guide. Lyon: INTERPOL; 2023. Available from: https://www.interpol.int
16. American Board of Forensic Odontology. Diplomates Reference Manual: standards, guidelines and body identification conclusion categories. Available from: https://abfo.org
17. American Board of Forensic Odontology. Standards and Guidelines for Dental Age Assessment. 2017. Available from: https://abfo.org
18. International Organization for Standardization. ISO 3950:2016 Dentistry - designation system for teeth and areas of the oral cavity. Geneva: ISO; 2016.
19. International Organization for Standardization. ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. Geneva: ISO; 2017.
20. International Organization for Standardization. ISO/IEC 17020:2012 Conformity assessment - requirements for the operation of various types of bodies performing inspection. Geneva: ISO; 2012.
21. International Organization for Standardization. ISO/IEC 27037:2012 Information technology - guidelines for identification, collection, acquisition and preservation of digital evidence. Geneva: ISO; 2012.

1.5 Scientific foundation reviews and evaluative reporting

22. National Research Council. Strengthening Forensic Science in the United States: A Path Forward. Washington (DC): National Academies Press; 2009.
23. President's Council of Advisors on Science and Technology. Forensic Science in Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods. Washington (DC): Executive Office of the President; 2016.
24. Sauerwein K, Butler JM, Reczek KK, Reed C. Bitemark Analysis: A NIST Scientific Foundation Review. Gaithersburg (MD): National Institute of Standards and Technology; 2023. NIST IR 8352. Available from: https://doi.org/10.6028/NIST.IR.8352
25. Reczek KK. Standards and Guidelines in Forensic Odontology. Gaithersburg (MD): National Institute of Standards and Technology; 2022. NIST IR 8352sup2.
26. European Network of Forensic Science Institutes. ENFSI Guideline for Evaluative Reporting in Forensic Science. Wiesbaden: ENFSI; 2015. Available from: https://enfsi.eu

1.6 Professional, ethical and regulatory standards

27. General Dental Council. Standards for the Dental Team. London: GDC; 2013. Available from: https://www.gdc-uk.org
28. Faculty of General Dental Practice (UK). Clinical Examination and Record-Keeping: Good Practice Guidelines. 3rd ed. London: FGDP(UK); 2016.
29. Faculty of General Dental Practice (UK). Selection Criteria for Dental Radiography. 3rd ed. London: FGDP(UK); 2018.
30. Academy of Medical Royal Colleges. Acting as an Expert or Professional Witness: Guidance for Healthcare Professionals. London: AoMRC; 2019. Available from: https://www.aomrc.org.uk

1.7 Key journals

Journal of Forensic Sciences · Forensic Science International · Forensic Science International: Synergy · International Journal of Legal Medicine · Journal of Forensic Odonto-Stomatology · Journal of Forensic and Legal Medicine · Science & Justice · Forensic Science, Medicine and Pathology · British Dental Journal

PART 2 — CHAPTER-SPECIFIC REFERENCES

Chapter 1 — Foundations of Forensic Dentistry

1.1 Definition and scope of forensic odontology · 1.2 Role of the dentist in legal and medico-legal systems · 1.3 When forensic dentistry is used · 1.4 Ethical principles: objectivity, confidentiality, chain of custody, bias · 1.5 Consent and legal authority · 1.6 Documentation standards and the medico-legal importance of dental records

Core texts: [1] (History of Forensic Odontology; Science and Forensic Odontology) · [2] introductory chapters · [3] Ch. 1 · [5] the role of teeth in establishing identity · [16] conclusion categories and scope of practice · [27] duties of a registrant

Additional

- Avon SL. Forensic odontology: the roles and responsibilities of the dentist. J Can Dent Assoc. 2004;70(7):453-8.
- Sweet D. Forensic dental identification. Forensic Sci Int. 2010;201(1-3):3-4.
- Pretty IA, Addy LD. Associated postmortem dental findings as an aid to personal identification. Sci Justice. 2002;42(2):65-74.
- General Dental Council. Preparing for Practice: Dental Team Learning Outcomes for Registration. London: GDC; 2015. Available from: https://www.gdc-uk.org
- World Health Organization. Ethical Practice in Laboratory Medicine and Forensic Pathology. Alexandria: WHO Regional Office for the Eastern Mediterranean; 1999. Available from: https://www.who.int
- Nuzzolese E, Di Vella G. Future project concerning mass disaster management: a forensic odontology prototype. Int Dent J. 2007;57(4):261-6.

Chapter 2 — Dental Identification (Core Introduction)

2.1 Why teeth are valuable identifiers · 2.2 Antemortem versus postmortem data and workflow · 2.3 Comparison methods: charting, radiographs, photographs, casts, notes · 2.4 Common identifiers: restorations, root fillings, crowns and bridges, implants · 2.5 INTERPOL and DVI concepts · 2.6 Sources of error

Core texts: [1] (Dental Identification) · [2] identification section · [3] Ch. 2-3 · [15] Annexures on antemortem and postmortem data · [16] body identification conclusion categories · [18] tooth designation

Additional

- Hinchliffe J. Forensic odontology, part 1: dental identification. Br Dent J. 2011;210(5):219-24.
- Acharya AB, Taylor JA. Are a minimum number of concordant matches needed to establish identity in forensic odontology? J Forensic Odontostomatol. 2003;21(1):6-13.
- Adams BJ. The diversity of adult dental patterns in the United States and the implications for personal identification. J Forensic Sci. 2003;48(3):497-503.
- Adams BJ. Establishing personal identification based on specific patterns of missing, filled, and unrestored teeth. J Forensic Sci. 2003;48(3):487-96.
- Sweet D, DiZinno JA. Personal identification through dental evidence - tooth fragments to DNA. J Calif Dent Assoc. 1996;24(5):35-42.
- Pretty IA. The barriers to achieving an evidence base for bitemark analysis and dental identification. Forensic Sci Int. 2006;159 Suppl 1:S110-20.

Chapter 3 — Dental Records and Legal Documentation

3.1 Components of a legal-quality dental record · 3.2 Charting standards and tooth notation systems · 3.3 Radiographic record keeping · 3.4 Photographic records, consent and metadata · 3.5 Study models and digital scans · 3.6 Corrections and amendments · 3.7 Record retention

Core texts: [28] the whole guideline · [29] justification and reporting · [18] FDI two-digit designation · [27] record-keeping and confidentiality standards · [21] integrity of digital records

Additional

- Hadden AM; FGDP(UK) Clinical Examination and Record-Keeping Working Group. Clinical examination and record-keeping. Part 1: dental records. Br Dent J. 2017;223(10):765-8.
- Charangowda BK. Dental records: an overview. J Forensic Dent Sci. 2010;2(1):5-10.
- Astekar M, Saawarn S, Ramesh G, Saawarn N. Maintaining dental records: are we ready for forensic needs? J Forensic Dent Sci. 2011;3(2):52-7.
- Peck S, Peck L. A time for change of tooth numbering systems. J Dent Educ. 1993;57(8):643-7.
- NHS England. Records Management Code of Practice 2021. Leeds: NHS England; 2021. Available from: https://www.england.nhs.uk
- Information Commissioner's Office. Guide to the UK General Data Protection Regulation. Wilmslow: ICO. Available from: https://ico.org.uk

Chapter 4 — Age Estimation

4.1 Why age estimation is needed · 4.2 Eruption sequences and developmental stages in children and adolescents · 4.3 Radiographic dental development · 4.4 Adults: secondary dentine, attrition and translucency · 4.5 Limits and sources of variability · 4.6 Ethical considerations and reporting of error

Core texts: [17] the whole standard · [1] (age estimation chapters) · [2] age estimation section · [10] tooth development · [11] dental development · [12] eruption chronology · [13] radiographic assessment of development

Additional

- Demirjian A, Goldstein H, Tanner JM. A new system of dental age assessment. Hum Biol. 1973;45(2):211-27.
- Moorrees CFA, Fanning EA, Hunt EE. Age variation of formation stages for ten permanent teeth. J Dent Res. 1963;42(6):1490-502.
- Nolla CM. The development of the permanent teeth. J Dent Child. 1960;27:254-66.
- AlQahtani SJ, Hector MP, Liversidge HM. Brief communication: the London atlas of human tooth development and eruption. Am J Phys Anthropol. 2010;142(3):481-90.
- Willems G, Van Olmen A, Spiessens B, Carels C. Dental age estimation in Belgian children: Demirjian's technique revisited. J Forensic Sci. 2001;46(4):893-5.
- Gustafson G. Age determination on teeth. J Am Dent Assoc. 1950;41(1):45-54.
- Bang G, Ramm E. Determination of age in humans from root dentin transparency. Acta Odontol Scand. 1970;28(1):3-35.
- Kvaal SI, Kolltveit KM, Thomsen IO, Solheim T. Age estimation of adults from dental radiographs. Forensic Sci Int. 1995;74(3):175-85.
- Cameriere R, Ferrante L, Cingolani M. Variations in pulp/tooth area ratio as an indicator of age: a preliminary study. J Forensic Sci. 2004;49(2):317-9.
- Schmeling A, Grundmann C, Fuhrmann A, et al. Criteria for age estimation in living individuals. Int J Legal Med. 2008;122(6):457-60.
- Liversidge HM. Controversies in age estimation from developing teeth. Ann Hum Biol. 2015;42(4):397-406.

Chapter 5 — Sex Determination and Human Identification

5.1 Teeth and sexual dimorphism, and its limited reliability · 5.2 Mandibular and canine size trends · 5.3 DNA from teeth: concept and indications · 5.4 The interface with forensic anthropology

Core texts: [9] sex and ancestry estimation from the skeleton · [1] (Dental Identification; scientific principles) · [3] Ch. on identification of human remains · [7] identification of the deceased

Additional

- Acharya AB, Mainali S. Univariate sex dimorphism in the Nepalese dentition and the use of discriminant functions in gender assessment. Forensic Sci Int. 2007;173(1):47-56.

- Iscan MY, Kedici PS. Sexual variation in bucco-lingual dimensions in Turkish dentition. Forensic Sci Int. 2003;137(2-3):160-4.
- Krishan K, Chatterjee PM, Kanchan T, Kaur S, Baryah N, Singh RK. A review of sex estimation techniques during examination of skeletal remains in forensic anthropology casework. Forensic Sci Int. 2016;261:165.e1-8.
- Rosing FW, Graw M, Marre B, et al. Recommendations for the forensic diagnosis of sex and age from skeletons. Homo. 2007;58(1):75-89.
- Higgins D, Austin JJ. Teeth as a source of DNA for forensic identification of human remains: a review. Sci Justice. 2013;53(4):433-41.
- Sivagami AV, Rao AR, Varshney U. A simple and cost-effective method for preparing DNA from the hard tooth tissue, and its use in polymerase chain reaction amplification of amelogenin gene segment for sex determination. Forensic Sci Int. 2000;110(2):107-15.
- Prinz M, Carracedo A, Mayr WR, et al. DNA Commission of the International Society for Forensic Genetics (ISFG): recommendations regarding the role of forensic genetics for disaster victim identification (DVI). Forensic Sci Int Genet. 2007;1(1):3-12.

Chapter 6 — Disaster Victim Identification (DVI)

6.1 DVI phases: scene, postmortem, antemortem, reconciliation · 6.2 Role of the dental team in mass disasters · 6.3 Triage and prioritisation of remains · 6.4 Postmortem dental examination workflow · 6.5 Data management systems · 6.6 Psychological and professional conduct considerations

Core texts: [15] the whole guide and its annexures, including occupational trauma exposure · [1] (Disaster Victim Identification) · [2] mass fatality section · [8] postmortem change and examination of the deceased · [9] recovery and analysis of remains · [16] conclusion categories

Additional

- Sweet D. INTERPOL DVI best-practice standards - an overview. Forensic Sci Int. 2010;201(1-3):18-21.
- Berketa JW, James H, Lake AW. Forensic odontology involvement in disaster victim identification. Forensic Sci Med Pathol. 2012;8(2):148-56.
- de Boer HH, Blau S, Delabarde T, Hackman L. The role of forensic anthropology in disaster victim identification (DVI): recent developments and future prospects. Forensic Sci Res. 2019;4(4):303-15.
- Alonso A, Martin P, Albarran C, et al. Challenges of DNA profiling in mass disaster investigations. Croat Med J. 2005;46(4):540-8.
- Pan American Health Organization, World Health Organization, International Committee of the Red Cross, International Federation of Red Cross and Red Crescent Societies. Management of Dead Bodies after Disasters: A Field Manual for First Responders. 2nd ed. Washington (DC): PAHO; 2016. Available from: https://www.paho.org
- Hinchliffe J. Forensic odontology, part 2: major disasters. Br Dent J. 2011;210(6):269-74.

Chapter 7 — Bite Mark Analysis

7.1 What bite mark analysis claims to do · 7.2 Evidence collection: photography, scaling, swabs for DNA · 7.3 Skin as a recording medium and its distortion · 7.4 Controversies and reliability concerns · 7.5 Current best-practice caution: documentation and referral

Core texts: [24] the whole review · [22] Ch. 5 · [23] feature-comparison validity · [6] identification of bitemark perpetrators · [4] bitemark evidence chapters · [16] permitted conclusion terminology

Additional

- American Board of Forensic Odontology. Standards and Guidelines for Evaluating Bitemarks. 2018 revision. Available from: https://abfo.org
- Pretty IA, Sweet D. The scientific basis for human bitemark analyses - a critical review. Sci Justice. 2001;41(2):85-92.

- Bush MA, Bush PJ, Sheets HD. Statistical evidence for the similarity of the human dentition. J Forensic Sci. 2011;56(1):118-23.
- Bush MA, Miller RG, Bush PJ, Dorion RBJ. Biomechanical factors in human dermal bitemarks in a cadaver model. J Forensic Sci. 2009;54(1):167-76.
- Page M, Taylor J, Blenkin M. Uniqueness in the forensic identification sciences - fact or fiction? Forensic Sci Int. 2011;206(1-3):12-8.
- Saks MJ, Albright T, Bohan TL, et al. Forensic bitemark identification: weak foundations, exaggerated claims. J Law Biosci. 2016;3(3):538-75.
- Texas Forensic Science Commission. Forensic Bitemark Comparison Complaint Filed by the National Innocence Project on Behalf of Steven Mark Chaney: Final Report. Austin (TX): TFSC; 2016. Available from: https://www.txcourts.gov/fsc

Chapter 8 — Abuse, Neglect and Safeguarding

8.1 Child abuse and neglect: oral and facial indicators · 8.2 Dental neglect: definition and clinical patterns · 8.3 Domestic violence indicators · 8.4 Safeguarding protocols, documentation and referral pathways · 8.5 Sensitive questioning and a non-judgemental approach · 8.6 Consent and the limits of confidentiality

Core texts: [1] (Abuse and Violence) · [2] safeguarding section · [3] child protection chapter · [27] raising concerns · [7] injury interpretation

Additional

- Tate AR, Fisher-Owens SA, Spiller L, Muhlbauer J, Lukefahr JL; Section on Oral Health, Council on Child Abuse and Neglect. Oral and dental aspects of child abuse and neglect: clinical report. Pediatrics. 2024;154(3):e2024068024.
- Ridsdale L, Gilchrist F, Balmer RC, Skelton R, Sidebotham PD, Harris JC. British Society of Paediatric Dentistry: a policy document on dental neglect in children. Int J Paediatr Dent. 2024;34(2):160-8.
- Pierce MC, Kaczor K, Lorenz DJ, et al. Validation of a clinical decision rule to predict abuse in young children based on bruising characteristics. JAMA Netw Open. 2021;4(4):e215832.
- Sheets LK, Leach ME, Koszewski IJ, Lessmeier AM, Nugent M, Simpson P. Sentinel injuries in infants evaluated for child physical abuse. Pediatrics. 2013;131(4):701-7.
- Sugar NF, Taylor JA, Feldman KW. Bruises in infants and toddlers: those who don't cruise rarely bruise. Arch Pediatr Adolesc Med. 1999;153(4):399-403.
- Harris JC, Elcock C, Sidebotham PD, Welbury RR. Safeguarding children in dentistry: 1. Child protection training and experience amongst dentists. Br Dent J. 2009;206(8):409-14.
- Gerbert B, Moe J, Caspers N, et al. Simplifying physicians' response to domestic violence. West J Med. 2000;172(4):253-6.
- National Institute for Health and Care Excellence. Child Maltreatment: When to Suspect Maltreatment in Under 18s. Clinical guideline CG89. London: NICE; 2009 (updated 2017). Available from: https://www.nice.org.uk/guidance/cg89
- National Institute for Health and Care Excellence. Domestic Violence and Abuse: Multi-agency Working. Public health guideline PH50. London: NICE; 2014. Available from: https://www.nice.org.uk/guidance/ph50
- Harris J, Sidebotham P, Welbury R, et al. Child Protection and the Dental Team: An Introduction to Safeguarding Children in Dental Practice. London: COPDEND; 2006. Available from: https://www.copdend.org

Chapter 9 — Forensic Photography and Evidence Handling

9.1 Principles of forensic photography: lighting, focus, scale, orientation · 9.2 Rulers, scales and reference markers · 9.3 Chain of custody · 9.4 Packaging and labelling of evidence · 9.5 Contamination avoidance and infection control

Core texts: [4] evidence documentation chapters · [1] (evidence collection and photography) · [21] acquisition and preservation of digital evidence · [19] laboratory competence · [25] standards applicable to odontological work · [24] documentation requirements

Additional

- Hyzer WG, Krauss TC. The bite mark standard reference scale - ABFO No. 2. J Forensic Sci. 1988;33(2):498-506.
- Sweet D, Lorente M, Lorente JA, Valenzuela A, Villanueva E. An improved method to recover saliva from human skin: the double swab technique. J Forensic Sci. 1997;42(2):320-2.
- Wright FD, Golden GS. The use of full spectrum digital photography for evidence collection and preservation in cases involving forensic odontology. Forensic Sci Int. 2010;201(1-3):59-67.
- Golden GS. Use of alternative light source illumination in bite mark photography. J Forensic Sci. 1994;39(3):815-23.
- Bowers CM, Johansen RJ. Photographic evidence protocol: the use of digital imaging methods to rectify angular distortion and create life size reproductions of bite mark evidence. J Forensic Sci. 2002;47(1):178-85.
- Scientific Working Group on Digital Evidence. SWGDE Best Practices for Digital Evidence Acquisition and Handling. Available from: https://www.swgde.org
- Organization of Scientific Area Committees for Forensic Science. OSAC Registry of Standards. Gaithersburg (MD): National Institute of Standards and Technology. Available from: https://www.nist.gov/osac

Chapter 10 — Identification Using Prostheses and Dental Appliances

10.1 Identification value of dentures, crowns, bridges and implants · 10.2 Denture marking and labelling methods · 10.3 Orthodontic appliances and unique features · 10.4 Serial numbers and manufacturer records

Core texts: [1] (Dental Identification) · [3] prosthetic and appliance evidence · [13] radiographic appearance of restorative materials and implants · [18] designation of teeth and areas · [15] property and physical evidence annexures

Additional

- Richmond R, Pretty IA. Contemporary methods of labeling dental prostheses - a review of the literature. J Forensic Sci. 2006;51(5):1120-6.
- Richmond R, Pretty IA. Identification of the edentulous individual: an investigation into the accuracy of radiographic identification. J Forensic Sci. 2010;55(4):984-7.
- Thomas CJ. The role of the denture in identification: a review. J Forensic Odontostomatol. 1984;2(1):13-6.
- Berketa JW. Maximizing postmortem oral-facial data to assist identification following severe incineration. Forensic Sci Med Pathol. 2014;10(2):208-16.
- Berketa J, James H, Marino V. Dental implant changes following incineration. Forensic Sci Int. 2011;207(1-3):50-4.
- Nuzzolese E, Marcario V, Di Vella G. Incorporation of radio frequency identification tag in dentures to facilitate recognition and forensic human identification. Open Dent J. 2010;4:33-6.

Chapter 11 — Forensic Radiology in Dentistry

11.1 Antemortem versus postmortem radiographs and matching principles · 11.2 Periapical, bitewing and panoramic views · 11.3 Radiographic identifiers: root fillings, posts, sinus patterns, restorations · 11.4 Errors, artefacts and interpretation pitfalls · 11.5 Digital imaging and metadata integrity

Core texts: [13] projection geometry, normal anatomy and interpretation · [14] intraoral and panoramic technique and faults · [29] justification and selection · [21] integrity of digital images · [15] postmortem imaging annexures

Additional

- Wood RE. Forensic aspects of maxillofacial radiology. Forensic Sci Int. 2006;159 Suppl 1:S47-55.

- MacLean DF, Kogon SL, Stitt LW. Validation of dental radiographs for human identification. J Forensic Sci. 1994;39(5):1195-200.
- Sidler M, Jackowski C, Dirnhofer R, Vock P, Thali M. Use of multislice computed tomography in disaster victim identification - advantages and limitations. Forensic Sci Int. 2007;169(2-3):118-28.
- Nomir O, Abdel-Mottaleb M. Human identification from dental X-ray images based on the shape and appearance of the teeth. IEEE Trans Inf Forensics Secur. 2007;2(2):188-97.
- Benavides E, Krecioch JR, Allareddy T, et al. American Dental Association and American Academy of Oral and Maxillofacial Radiology patient selection for dental radiography and cone-beam computed tomography: clinical recommendations. J Am Dent Assoc. 2026;157(1):20-35.
- Public Health England. Guidance Notes for Dental Practitioners on the Safe Use of X-ray Equipment. 2nd ed. London: PHE; 2020. Available from: https://www.gov.uk
- National Electrical Manufacturers Association. Digital Imaging and Communications in Medicine (DICOM) Standard. Rosslyn (VA): NEMA. Available from: https://www.dicomstandard.org

Chapter 12 — Legal Aspects and Professional Responsibilities

12.1 Fact witness versus expert witness · 12.2 Writing medico-legal reports · 12.3 Courtroom conduct · 12.4 Consent, confidentiality and data protection · 12.5 Professional boundaries and referral to specialists

Core texts: [1] (Jurisprudence and Expert Witness Testimony) · [26] structure and wording of an evaluative opinion · [30] the expert's duties · [27] consent, confidentiality and scope of practice · [22] admissibility and the courts

Additional

- Daubert v Merrell Dow Pharmaceuticals Inc, 509 US 579 (1993).
- Frye v United States, 293 F 1013 (DC Cir 1923).
- Kumho Tire Co v Carmichael, 526 US 137 (1999).
- Federal Rules of Evidence, Rule 702: testimony by expert witnesses (as amended December 2023). Washington (DC): US Government Publishing Office. Available from: https://www.uscourts.gov
- Ministry of Justice. Civil Procedure Rules, Part 35: experts and assessors, and Practice Direction 35. Available from: https://www.justice.gov.uk
- National Justice Compania Naviera SA v Prudential Assurance Co Ltd (The Ikarian Reefer) [1993] 2 Lloyd's Rep 68.
- Jones v Kaney [2011] UKSC 13.
- Montgomery v Lanarkshire Health Board [2015] UKSC 11.
- Data Protection Act 2018. London: The Stationery Office; 2018. Available from: https://www.legislation.gov.uk
- Forensic Science Regulator. Code of Practice for Forensic Science Activities in the Criminal Justice System. Birmingham: Forensic Science Regulator. Available from: https://www.gov.uk

Chapter 13 — Ethics, Quality and Standards in Forensic Work

13.1 Impartiality and avoiding confirmation bias · 13.2 Record integrity: contemporaneous notes and audit trail · 13.3 Quality assurance, peer review and second opinions · 13.4 Handling uncertainty and expressing limitations · 13.5 Psychological impact and professionalism in trauma cases

Core texts: [26] evaluative reporting, likelihood ratios and the verbal scale · [19] and [20] competence, review and non-conformity · [22] and [23] the case for validation and error rates · [30] duties of the expert · [15] occupational trauma exposure annexure

Additional

- Dror IE, Charlton D, Peron AE. Contextual information renders experts vulnerable to making erroneous identifications. Forensic Sci Int. 2006;156(1):74-8.

- Dror IE. Cognitive and human factors in expert decision making: six fallacies and the eight sources of bias. Anal Chem. 2020;92(12):7998-8004.
- Dror IE, Kukucka J. Linear Sequential Unmasking-Expanded (LSU-E): a general approach for improving decision making as well as minimizing noise and bias. Forensic Sci Int Synerg. 2021;3:100161.
- Kukucka J, Kassin SM, Zapf PA, Dror IE. Cognitive bias and blindness: a global survey of forensic science examiners. J Appl Res Mem Cogn. 2017;6(4):452-9.
- Evett IW, Berger CEH, Buckleton JS, Champod C, Jackson G. Finding the way forward for forensic science in the US. Sci Justice. 2017;57(1):61-71.
- Medicines and Healthcare products Regulatory Agency. 'GXP' Data Integrity Guidance and Definitions. London: MHRA; 2018. Available from: https://www.gov.uk
- MacEachern AD, Dennis AA, Jackson S, Jones DN. Secondary traumatic stress: prevalence and symptomology amongst detective officers investigating child protection cases. J Police Crim Psychol. 2019;34(2):165-74.

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