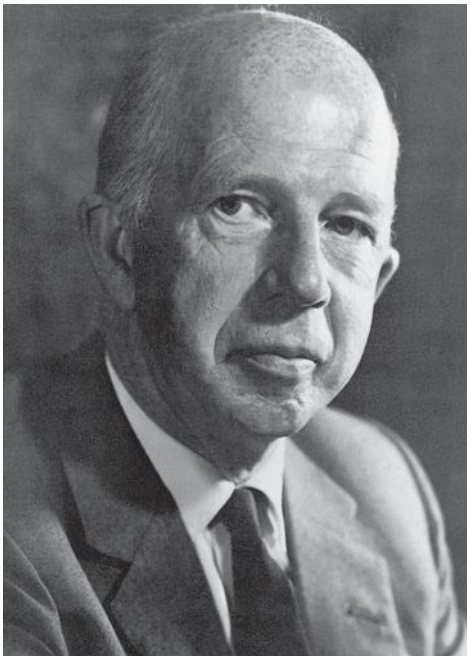
Simpson's Forensic Medicine

13th Edition

Jason Payne-James
Richard Jones
Steven B Karch
John Manlove

Simpson's
Forensic Medicine



Professor CEDRIC KEITH SIMPSON CBE (1907–85)
MD (Lond), FRCP, FRCPath, MD (Gent), MA (Oxon), LLD (Edin), DMJ
Keith Simpson was the first Professor of Forensic Medicine in the University of London and undoubtedly one of the most eminent forensic pathologists of the twentieth century. He spent all his professional life at Guy's Hospital and he became a household name through his involvement in many notorious murder trials in Britain and overseas. He was made a Commander of the British Empire in 1975.

He was a superb teacher, through both the spoken and the printed word. The first edition of this book appeared in 1947 and in 1958 won the Swiney Prize of the Royal Society of Arts for being the best work on medical jurisprudence to appear in the preceding ten years.

Keith Simpson updated this book for seven further editions. Professor Bernard Knight worked with him on the ninth edition and, after Professor Simpson's death in 1985, updated the text for the tenth and eleventh editions. Richard Shepherd updated *Simpson's Forensic Medicine* for its twelfth edition in 2003.

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13th Edition

Jason Payne-James LLM MSc FRCS FFFLM FFSSoc DFM
Consultant Forensic Physician and Honorary Senior Lecturer, Cameron Forensic Medical Sciences, Barts and The London School of Medicine and Dentistry, London; Director, Forensic Healthcare Services Ltd, UK

Richard Jones BSc(Hons) MBBS FRCPath MCIEH MFSSoc MFFLM
Home Office Pathologist working at the Wales Institute of Forensic Medicine, University Hospital of Wales, Cardiff, Wales, UK

Steven B Karch MD FFFLM FFSSoc
Consultant Cardiac Pathologist and Toxicologist, Berkeley, California, USA

John Manlove BA MSc DIC PhD FFSSoc
Manlove Forensics Ltd, Wantage, Oxon, UK

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About the authors

Jason Payne-James qualified in medicine in 1980 at the London Hospital Medical College. He is a forensic physician and has undertaken additional postgraduate education to higher degree level at Cardiff Law School, the Department of Forensic Medicine and Science at the University of Glasgow and with the University of Ulster, Northern Ireland.

He is external Consultant to the National Policing Improvement Agency and to the National Injuries Database. He is Editor-in-Chief of the Journal of Forensic and Legal Medicine. His forensic medicine clinical and research interests include healthcare of detainees, deaths, harm and near-misses in custody, torture, drugs and alcohol, wound and injury interpretation, sexual assault, neglect, non-accidental injury, restraint and use of force injury, police complaints and age estimation.

He has co-edited, co-authored or contributed to a number of other books including the *Encyclopedia of Forensic & Legal Medicine*, *Forensic Medicine: Clinical & Pathological Aspects*, *Symptoms and Signs of Substance Misuse*, *Artificial Nutrition Support in Clinical Practice*, *Symptoms and Early Warning Signs*, *Dr Apple's Symptoms Encyclopaedia*, *Medico-legal Essentials of Healthcare*, *Colour Atlas of Forensic Medicine*, *Age Estimation in the Living – a Practitioner's Guide*, *Current Practice in Forensic Medicine* and the *Oxford Handbook of Forensic Medicine*.

Richard Jones qualified in Environmental Health in 1994 at the University of Wales (Cardiff Institute of Higher Education), and in medicine in 2002 at Guy's, King's and St Thomas' School of Medicine, London. His postgraduate medical training was in histopathology and forensic pathology and his name appears on the current Home Office Register of Forensic Pathologists. He is the author of *Forensic Medicine for Medical Students*, an educational website (www.forensicmed.co.uk)

Steven B Karch received his undergraduate degree from Brown University, Rhode Island. He attended graduate school in anatomy and cell biology at Stanford. He has an MD from Tulane University and did postgraduate training in neuropathology at the Royal London Hospital and in cardiac pathology at Stanford.

He has published twelve books and is at work on several more, including a novel on Napoleon and his doctors. He was a Forensic Science Editor for Humana Press is now an associate editor for the *Journal of Forensic and Legal Medicine* and the *Journal of Cardiovascular Toxicology*.

John Manlove graduated from Oxford University in 1993 with a degree in biological sciences (1993) from. He has postgraduate qualifications from Imperial College and London (Birkbeck) University. He is one of the Directors of MFL (Manlove Forensics Ltd), an independent forensic provider based in South Oxfordshire providing services across the criminal justice spectrum.

He has been appointed to the position of Honorary Senior Lecturer at Dundee University in the School of Life Sciences and is currently on the council of BAHID (British Association of Human Identification). He is a Fellow of the Forensic Science Society and on the editorial board of *Science and Justice*.

Foreword

The trust placed in forensic practitioners by those administering justice is enormous. Although practitioners provide their evidence at the behest of one party or another in cases where there is not an agreed expert, their duty to the court is clear. They must assist the court, in their reports and in any evidence they give orally, by giving their opinions impartially and honestly to the best of their ability. In all but a tiny handful of cases, this trust is rightly reposed in forensic practitioners. However when it is shown that such trust should not have been reposed or that a practitioner has betrayed the principles adhered to by all but that tiny handful, the effect on the administration of justice and on the integrity of forensic practitioners can be devastating.

I therefore welcome this new edition of *Simpson's Forensic Medicine*. As it claims, it sets out the basics of forensic medicine and related forensic science specialties for those who are commencing careers in forensic medicine or forensic science, or those whose work brings them into contact with situations that require an awareness of the principles.

It is welcome to see that it takes an international perspective. Developments in forensic science and medicine are, of course, worldwide; a development in one country which may contradict the received wisdom in another is these days often seized upon by parties to litigation. Legal developments in one country are being more frequently raised in other countries. These may relate to the manner in which expert evidence is adduced or the weight accorded to it. This internationalisation of forensic practice has enormous benefits, but carries with it acute risks if there is not the strictest adherence to the ethical principles clearly expounded in this work. These days a forensic practitioner must be aware of these changes and the ever greater willingness of lawyers to seek expert opinion from overseas to support their case where none can be found within their own jurisdiction.

In these developments, it is therefore essential that lawyers understand the basic principles of the forensic science and medicine in the cases that come before them and that forensic practitioners and forensic medical practitioners understand the way in which the courts operate and their high duties to the court. This work forms an important bridge between law on the one hand and science and medicine on the other. It is a useful perspective through which to see the need to ensure that developments in the law and developments in forensic practice and forensic medicine move together with ever increasing dialogue.

Lord Justice Thomas
Vice-President of the Queen's Bench Division
and Deputy Head of Criminal Justice

Preface

Since the first edition of *Simpson's Forensic Medicine* was published in 1947 there has been general recognition that the term 'forensic medicine' has expanded considerably to embrace not only forensic pathology but also clinical forensic medicine. In addition, medical practitioners who work within these fields now require knowledge and understanding, not only of medical concepts, but also of both law and forensic science, and how they interact. Indeed, many subjects that may have been considered part of 'forensic medicine', in its old sense, have now developed their own specialties, such as forensic toxicology, forensic science, forensic odontology and forensic anthropology.

The earlier editions of Simpson's were directed predominantly at a purely medical readership. Over 20 years ago Bernard Knight recognized that the readership should and did lie beyond solely a medical readership. There has been a huge increase in the public awareness of forensic techniques and process, led by an expanding media fascination with such subjects. With this has come an increase in the numbers of those wishing to study these areas as undergraduates or subsequently as postgraduates, who may not come from a medical background. What has not changed since Keith Simpson's first edition is that the budding forensic practitioner, or the undergraduate, or the law enforcement officer, or the healthcare professional or the lawyer who wishes to study, or those who by the nature of their work, will at some stage (like it or not) become involved in forensic matters, needs to be aware of and understand the basis of forensic medicine and how it relates to the other specialties.

This, the 13th edition of *Simpson's Forensic Medicine* has been written to assist all those groups, not simply doctors, and to illustrate the basic concept of forensic medicine and related forensic specialties and provide an introduction to the concepts and the principles of practice for those commencing forensic careers, or for those whose daily workload will bring them into contact with situations that require an awareness of these matters. In addition, each chapter provides a range of suggestions for further reading (books, key scientific papers and reviews, web-based sources) about each subject which will provide further in-depth authoritative information. As we all work within multi-professional settings, it is important to have an awareness of the general principles that apply. The perspective provided in this book is generally from that of a doctor. Readers will originate from different countries and different jurisdictions. Examples of relevant regulations, law, codes and practice will generally be derived from the England and Wales jurisdictions. All readers should be aware of those that apply within their professional setting, their own country and their own jurisdiction.

There are considerable changes in content, format and layout from previous editions which we hope will clarify and expand on topics of particular current relevance. Any mistakes or misinterpretations are those of the editors who will happily receive comment and criticism on any aspect of the content. We hope that readers will find that this edition addresses their needs.

Jason Payne-James
London, February 2011

Acknowledgements

A project such as this requires the support and expertise of many, not just the editors or authors.

Jason Payne-James would like to thank colleagues and associates with whom he has collaborated in the last two decades and his family for their support and encouragement. He would also like to thank Philip Shaw, Caroline Makepeace and Joanna Silman in their respective roles at Hodder, Andy Anderson who copy-edited the text and Michèle Clarke who proofread.

Richard Jones would like to thank Mary Hassell, HM Coroner for Cardiff and the Vale of Glamorgan; and Marc Smith, Forensic Medical Photographer, Wales Institute of Forensic Medicine.

John Manlove is grateful for the contribution of Kathy Manlove, James Shackel, Samantha Pickles and Andrew Wade in the preparation of his chapters.

Authors' note

The contents of this book follow the Interpretation Act 1978, so that, unless specifically stated otherwise, words importing the masculine gender include the feminine and words importing the feminine gender include the masculine.

Examples of procedure or functions will be given predominantly from the perspective of a medical practitioner (a doctor), but many of the principles or examples stated will apply also to other professionals. All professionals should be aware of the regulations or codes of conduct that apply to their practice, and of the laws and statutes that apply in their own jurisdiction.

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Chapter 1

Principles of forensic practice

- Introduction
- Legal systems
- Doctors and the law
- Evidence for courts
- Doctors in court
- Further information sources

Introduction

Different countries have different legal systems, which broadly divide into two areas – criminal and civil. The systems have generally evolved over many years or centuries and are influenced by a wide variety of factors including culture, religion and politics. By and large, the rules have been established over many hundreds of years and are generally accepted because they are for the mutual benefit of the population – they are the framework that prevents anarchy. Although there are some common rules (for example concerning murder) that are to be found in every country, there are also considerable variations from country to country in many of the other codes or rules. The laws of a country are usually established by an elected political institution, the population accepts them and they are enforced by the imposition of penalties on those who are found guilty of breaking them.

Members of medical, healthcare and scientific professions are bound by the same general laws as the population as a whole, but they may also be bound by additional laws specific to their area of practice. The training, qualification and registration of doctors, scientists and related professions is of great relevance at the current time, in the light of the recognized need to ensure that evidence, both medical and scientific, that is placed before the court, is established and recognized. Fraudulent professional and 'hired guns' risk undermining their own professions, in addition to causing miscarriages of justice where the innocent may be convicted and the guilty acquitted. It is sometime difficult for medical and scientific professionals to realize that their evidence is only part of a body of evidence, and that unlike in the fictional media, the solving of crimes is generally the result of meticulous painstaking and often tedious effort as part of a multi-professional team.

The great diversity of the legal systems around the world poses a number of problems to the author when giving details of the law in a book such as this. Laws on the same aspect commonly differ widely from country to country, and some medical procedures (e.g. abortion) that are routine practice (subject to appropriate legal controls) in some countries are considered to be a crime in others. Within the United Kingdom, England and Wales has its own legal system, and Scotland and Northern Ireland enjoy their own legal traditions which, although distinct from that of England and Wales, share many traditions. There are also smaller jurisdictions with their own individual variations in the Isle of Man and the Channel Isles. Overarching this is European legislation and with it the possibility of final appeals to the European Court. Other bodies (e.g. the International Criminal Court) may also influence regional issues.

This book will utilize the England and Wales legal system for most examples, making reference to other legal systems when relevant. However, it is crucial that any individual working in, or exposed to, forensic matters is aware of those relevant laws, statutes, codes and regulations that not only apply generally but also specifically to their own area of practice.

Legal systems

Laws are rules that govern orderly behaviour in a collective society and the system referred to as 'the Law' is an expression of the formal institutionalization of the promulgation, adjudication and enforcement of rules. There are many national variations but the basic pattern is very similar. The exact structure is frequently developed from and thus determined by the political system, culture and religious attitudes of the country in question. In England and Wales, the principal sources of these laws are Parliament and the decisions of judges in courts of law. Most countries have two main legal systems: criminal courts and civil courts. The first deals predominantly with disputes between the State and individual, the second with disputes between individuals. Most jurisdictions may also have a range of other legal bodies that are part of these systems or part of the overall justice system (e.g. employment tribunals, asylum tribunals, mental health review tribunals and other specialist dispute panels) and such bodies may deal with conflicts that arise between citizens and administrative bodies, or make judgements in other disputes. All such courts, tribunals or bodies may at some stage require input from medical and scientific professionals.

In England and Wales, decisions made by judges in the courts have evolved over time and this body of decisions is referred to as 'common law' or 'case law'. The 'doctrine of precedent' ensures that principles determined in one court will normally be binding on judges in inferior courts. The Supreme Court of the United Kingdom is the highest court in all matters under England and Wales law, Northern Irish law and Scottish civil law. It is the court of last resort and highest appeal court in the United Kingdom; however the High Court of Justiciary remains the supreme court for criminal cases in Scotland. The Supreme Court was established by the Constitutional Reform Act 2005 and started work on 1 October 2009. It assumed the judicial functions of the House of Lords, which were previously undertaken by the Lords of Appeal in Ordinary (commonly called Law Lords). Along with the concept of Parliamentary Sovereignty is that the judiciary are independent of state control, although the courts will still be bound by statutory law. This separation is one that is frequently tested.

Criminal law

Criminal law deals with relationships between the state and the individual and as such is probably the area in which forensic medical expertise is most commonly required. Criminal trials involve offences that are 'against public interest'; these include offences against the person (e.g. murder, assault, grievous bodily harm, rape), property (e.g. burglary, theft, robbery), and public safety and security of the state (terrorism). In these matters the state acts as the voice or the agent of the people. In continental Europe, a form of law derived from the Napoleonic era applies. Napoleonic law is an 'inquisitorial system' and both the prosecution and the defence have to make their cases to the court, which then chooses which is the more credible. Evidence is often taken in written form as depositions, sometimes referred to as 'documentary evidence'. The Anglo-Saxon model applies in England and Wales and in many of the countries that it has influenced in the past. This system is termed the 'adversarial system'. If an act is considered of sufficient importance or gravity, the state 'prosecutes' the individual. Prosecutions for crime in England and Wales are made by the Crown Prosecution Service (CPS), who assess the evidence provided to them by the police. The CPS will make a determination as to whether to proceed with the case and, in general, the following principles are taken into account: prosecutors must be satisfied that there is sufficient evidence to provide a realistic prospect of conviction against each suspect on each charge; they must consider what the defence case may be, and how it is likely to affect the prospects of conviction; a case which does not pass the 'evidential stage' must not proceed, no matter how serious or sensitive it may be. Sir Hartley Shawcross in 1951, who was then Attorney General, stated: '...[this] has never been the rule in this country – I hope it never will be – that suspected criminal offences must automatically be the subject of prosecution'. He added that there should be a prosecution: 'wherever it appears that the offence or the circumstances of its commission is or are of such a character that a prosecution in respect thereof

is required in the public interest' (House of Commons Debates). This approach has been endorsed by Attorneys General ever since. Thus, even when there is sufficient evidence to justify a prosecution or to offer an out-of-court disposal, prosecutors must go on to consider whether a prosecution is required in the public interest. The prosecutor must be sure that there are public interest factors tending against prosecution that outweigh those tending in favour, or else the prosecutor is satisfied that the public interest may be properly served, in the first instance, by offering the offender the opportunity to have the matter dealt with by an out-of-court disposal. The more serious the offence or the offender's record of criminal behaviour, the more likely it is that a prosecution will be required in the public interest.

In a criminal trial it is for the prosecution to prove their case to the jury or the magistrates 'beyond reasonable doubt'. If that level cannot be achieved, then the prosecution fails and the individual is acquitted. If the level is achieved then the individual is convicted and a punitive sentence is applied. The defence does not have to prove innocence because any individual is presumed innocent until found guilty. Defence lawyers aim to identify inconsistencies and inaccuracies or weaknesses of the prosecution case and can also present their own evidence.

The penalties that can be imposed in the criminal system commonly include financial (fines) and loss of liberty (imprisonment) and community-based sentences. Some countries allow for corporal punishment (beatings), mutilation (amputation of parts of the body) and capital punishment (execution).

In England and Wales the lowest tier of court (in both civil and criminal cases) is the Magistrates' Court. 'Lay' magistrates sit in the majority of these courts advised by a legally qualified justice's clerk. In some of these courts a district judge will sit alone. Most criminal cases appear in magistrates' courts. The Crown Court sits in a number of centres throughout England and Wales and is the court that deals with more serious offences, and appeals from magistrates' courts. Cases are heard before a judge and a jury of 12 people. Appeals from the Crown Court are made to the Criminal Division of the Court of Appeal. Special courts are utilised for those under 18 years of age.

Civil law

Civil law is concerned with the resolution of disputes between individuals. The aggrieved party undertakes the legal action. Most remedies are financial. All kinds of dispute may be encountered, including those of alleged negligence, contractual failure, debt, and libel or slander. The civil courts can be viewed as a mechanism set up by the state that allows for the fair resolution of disputes in a structured way.

The standard of proof in the civil setting is lower than that in the criminal setting. In civil proceedings, the standard of proof is proof on the balance of probabilities – a fact will be established if it is more likely than not to have happened.

Recently Lord Richards noted in a decision of the Court of Appeal in Re (N) v Mental Health Review Tribunal (2006) QB 468 that English law recognizes only one single standard for the civil standard but went on to explain that the standard was flexible in its application:

> *'Although there is a single standard of proof on the balance of probabilities, it is flexible in its application. In particular, the more serious the allegation or the more serious the consequences if the allegation is proved, the stronger must be the evidence before the court will find the allegation proved on the balance of probabilities. Thus the flexibility of the standard lies not in any adjustment to the degree of probability required for an allegation to be proved (such that a more serious allegation has to be proved to a higher degree of probability), but in the strength or quality of the evidence that will in practice be required for an allegation to be proved on the balance of probabilities.'*

If the standard of proof is met, the penalty that can be imposed by these courts is designed to restore the position of the successful claimant to that which they had before the event, and is generally financial compensation (damages). In certain circumstances there may be a punitive element to the judgment.

The Magistrates' Court is used for some cases, but the majority of civil disputes are dealt within the County Court in the presence of a circuit judge. The High Court has unlimited jurisdiction in civil cases and has three divisions:

1. *Chancery* – specializing in matters such as company law;
2. *Family* – specializing in matrimonial issues and child issues; and
3. *Queen's Bench* – dealing with general issues.

In both civil and criminal trials, the person against whom the action is being taken is called the defendant; the accuser in criminal trials is the state and in civil trials it is the plaintiff.

Doctors and the law

Doctors and other professionals may become involved with the law in the same way as any other private individual: they may be charged with a criminal offence or they may be sued through the civil court. A doctor may also be witness to a criminal act and may be required to give evidence about it in court.

However, it is hoped that these examples will only apply to the minority of professionals reading this book. For most, the nature of the work may result in that individual providing evidence that may subsequently be tested in court. For doctors are circumstances in which doctors become involved with the law simply because they have professional skills or experience. In these cases, the doctor (or other professional) may have one of two roles in relation to the court, either as a professional or as an expert witness, the delineation of which can sometimes overlap.

Professional witness

A professional witness is one who gives factual evidence. This role is equivalent to a simple witness of an event, but occurs when the doctor is providing factual medical evidence. For example, a casualty doctor may confirm that a leg was broken or that a laceration was present and may report on the treatment given. A primary care physician may confirm that an individual has been diagnosed as having epilepsy or angina. No comment or opinion is generally given and any report or statement deals solely with the relevant medical findings.

Expert witness

An expert witness is one who expresses an opinion about medical facts. An expert will form an opinion, for instance about the cause of the fractured leg or the laceration. An expert will express an opinion about the cause of the epilepsy or the ability of an individual with angina to drive a passenger service vehicle. Before forming an opinion, an expert witness will ensure that the relevant facts about a case are made available to them and they may also wish to examine the patient. In the United Kingdon the General Medical Council has recently published guidance for doctors acting as expert witnesses (http://www.gmc-uk.org/guidance/ethical_guidance/expert_witness_guidance.asp).

There are often situations of overlap between these professional and expert witness roles. For example a forensic physician may have documented a series of injuries having been asked to assess a victim of crime by the police and then subsequently be asked to express an opinion about causation. A forensic pathologist will produce a report on their post-mortem examination (professional aspect) and then form conclusions and interpretation based upon their findings (expert aspect).

The role of an expert witness should be to give an impartial and unbiased assessment or interpretation of the evidence that they have been asked to consider. The admissibility of expert evidence is in itself a vast area of law. Those practising in the USA will be aware that within US jurisdictions admissibility is based on two tests: the Frye test and the Daubert test. The Frye test (also known as the general acceptance test) was stated (Frye v United States, 293 F. 1013 (D.C.Cir. 1923) as:

> *Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in the twilight zone the evidential force of the principle must be recognized, and while courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs.*

Subsequently in 1975, the Federal Rules of Evidence – Rule 702 provided:

> *If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, or training, or education may testify thereto in the form of an opinion or otherwise.*

It appeared that Rule 702 superseded Frye and in 1993 this was confirmed in Daubert v Merrell Dow

Pharmaceuticals, Inc. 509 US 579 (1993). This decision held that proof that establishes scientific reliability of expert testimony must be produced before it can be admitted. Factors that judges may consider were:

> *Whether the proposition is testable*
> *Whether the proposition has been tested*
> *Whether the proposition has been subjected to peer review and publication*
> *Whether the methodology technique has a known or potential error rate*
> *Whether there are standards for using the technique*
> *Whether the methodology is generally accepted.*

The question as to whether these principles applied to all experts and not just scientific experts was explored in cases and in 2000 Rule 702 was revised to:

> *If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, or training, or education may testify thereto in the form of an opinion or otherwise, provided that (1) the testimony is sufficiently based upon reliable facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods to the facts of the case.*

Committee Notes of the Federal Rules also emphasize that if a witness is relying primarily on experience to reach an opinion, that the witness must explain how that specific experience leads to that particular opinion.

In England and Wales, His Honour Judge Cresswell reviewed the duties of an expert in the Ikarian Reefer case (1993) FSR 563 and identified the following key elements to expert evidence:

1. *Expert evidence presented to the court should be, and should be seen to be, the independent product of the expert uninfluenced as to form or content by the exigencies of litigation.*
2. *An expert witness should provide independent assistance to the Court by way of objective, unbiased opinion in relation to matters within his expertise.*
3. *An expert witness in the High Court should never assume the role of an advocate.*
4. *An expert should state facts or assumptions upon which his opinion is based.*
5. *He should not omit to consider material facts which could detract from his concluded opinion.*
6. *An expert witness should make it clear when a particular question or issue falls outside his area of expertise.*
7. *If an expert's opinion is not properly researched because he considers that insufficient data is available, then this must be stated with an indication that the opinion is no more than a provisional one.*
8. *In cases where an expert witness, who has prepared a report, could not assert that the report contained the truth, the whole truth and nothing but the truth without some qualification, that qualification should be stated in the report.*
9. *If, after exchange of reports, an expert witness changes his views on a material matter having read the other side's report or for any other reason, such change of view should be communicated (through legal representatives) to the other side without delay and when appropriate to the court.*
10. *Where expert evidence refers to photographs, plans, calculations, analyses, measurements, survey reports or other similar documents, these must be provided to the opposite party at the same time as the exchange of reports.*

A more recent case further clarified the role of the expert witness (Toulmin HHJ in Anglo Group plc v Winther Brown & Co. Ltd. 2000)

1. *An expert witness should at all stages in the procedure, on the basis of the evidence as he understands it, provide independent assistance to the court and the parties by way of objective unbiased opinion in relation to matters within his expertise. This applies as much to the initial meetings of experts as to evidence at trial. An expert witness should never assume the role of an advocate.*
2. *The expert's evidence should normally be confined to technical matters on which the court will be assisted by receiving an explanation, or to evidence of common*

professional practice. The expert witness should not give evidence or opinions as to what the expert himself would have done in similar circumstances or otherwise seek to usurp the role of the judge.

3. *He should cooperate with the expert of the other party or parties in attempting to narrow the technical issues in dispute at the earliest possible stage of the procedure and to eliminate or place in context any peripheral issues. He should cooperate with the other expert(s) in attending without prejudice meetings as necessary and in seeking to find areas of agreement and to define precisely areas of disagreement to be set out in the joint statement of experts ordered by the court.*
4. *The expert evidence presented to the court should be, and be seen to be, the independent product of the expert uninfluenced as to form or content by the exigencies of the litigation.*
5. *An expert witness should state the facts or assumptions upon which his opinion is based. He should not omit to consider material facts which could detract from his concluded opinion.*
6. *An expert witness should make it clear when a particular question or issue falls outside his expertise.*
7. *Where an expert is of the opinion that his conclusions are based on inadequate factual information he should say so explicitly.*
8. *An expert should be ready to reconsider his opinion, and if appropriate, to change his mind when he has received new information or has considered the opinion of the other expert. He should do so at the earliest opportunity.*

These points remain the essence of the duties of an expert within the England and Wales jurisdiction.

When an expert has been identified it is appropriate that he is aware of relevant court decisions that relate to his role within his own jurisdictions. Extreme scepticism should be used if an individual claiming to be an expert is unaware of the expected roles and duties they should conform to.

Civil court procedure in England and Wales also now allows that, 'where two or more parties wish to submit expert evidence on a particular issue, the court may direct that the evidence on that issue is to be given by a single joint expert, and where the parties who wish to submit the evidence ('the relevant parties') cannot agree who should be the single joint expert, the court may – (a) select the expert from a list prepared or identified by the relevant parties; or (b) direct that the expert be selected in such other manner as the court may direct.'

The aims of these new rules are to enable the court to identify and deal more speedily and fairly with the medical points at issue in a case. Where both parties in both criminal and civil trials appoint experts, courts encourage the experts to meet in advance of court hearings in order to define areas of agreement and disagreement.

The duties of an expert are summarized as being that the expert's duty is to the court and any opinion expressed must not be influenced by the person who requested it, or by whoever is funding it, but must be impartial, taking into account all the evidence, supporting it where possible with established scientific or medical research, and experts should revise the opinion if further or changed evidence becomes available.

This remains an evolving area of law.

Evidence for courts

There are many different courts in England and Wales, including Coroner, Magistrate, Crown, County and the Courts of Appeal. Court structure in other jurisdictions will have similar complexity and, although the exact process doctors and other professionals may experience when attending court will depend to some extent upon which court in which jurisdiction they attend, there are a number of general rules that can be made about giving evidence. In recent years courts have developed better, but not perfect, communication systems, informing witnesses who are required to give evidence in court of their role and the procedures in place, prior to attendance. In England and Wales all courts have witness services that can respond to questions and those who have never been to court before can have the opportunity of being shown the layout and structure of a court.

Statements and reports

A statement in a criminal case is a report that is prepared in a particular form so that it can be used as

evidence. There is an initial declaration that ensures that the person preparing the statement is aware that they must not only tell the truth but must also ensure that there is nothing within the report that they know to be false. The effect of this declaration is to render the individual liable for criminal prosecution if they have lied. A statement provided when acting as a professional witness will be based on the contemporaneous notes (notes or records made at the time of examination), and it is important that the statement fairly reflects what was seen or done at the time.

A statement may be accepted by both defence and prosecution, negating the need for court attendance. If, for example, the defence do not accept the findings or facts expressed, the doctor will be called to court to give live evidence and be subject to examination, cross-examination and re-examination.

In civil proceedings a different official style is adopted. In these cases a sworn statement (an affidavit) is made before a lawyer who administers an oath or other formal declaration at the time of signing. This makes the document acceptable to the court.

In many countries, a statement in official form or a sworn affidavit is commonly acceptable alone and personal appearances in court are unusual. However, in the system of law based on Anglo-Saxon principles, personal appearances are common and it is the verbal evidence – tested by the defence – that is important.

If a case comes to trial, any statement made for the prosecution will be made available to all interested parties at the court; at present, the same principle of disclosure does not apply to all reports prepared for the defence in a criminal trial. Thus a defence team may commission a report that is not helpful to the client's defence. This does not have to be disclosed to the prosecution team. The format for reports in civil trial is different. In England and Wales the Ministry of Justice publishes and updates civil, criminal and family procedure rules and practice directions, and these are accessible online. It is important to understand that, although these are published, practice sometime varies from the published rules and directions.

Attending court

If a citizen is asked to appear as a witness for the court, it is the duty of all to comply, and attendance at court is generally presumed without the need to resort to a written order. Courts in England and Wales generally have specific witness liaison units, that liaise with all participants in a case, attempting (often unsuccessfully) to ensure that the dates of any trial are convenient for all witnesses. Court listing offices try to take into account 'dates to avoid' (e.g. clinics or operating sessions, pre-booked holidays or other court commitments), but this is not always successful. When notified that a court case in which you are a witness is going to take place, it is generally possible to agree a specific day on which your attendance is required. However, the court does have total authority and sometimes will compel attendance even when you have other commitments. In this case, a witness summons will be issued. This a court order signed by a judge or other court official that must be obeyed or the individual will be in contempt of court and a fine or imprisonment may result.

Waiting to give evidence involves much time-wasting and frustration, but it is important that witnesses do not delay court proceedings by failure to attend, or being late. Reasons for last-minute changes in the need for court attendance include factors such as a guilty plea being entered on the first day of the trial, or acceptance of a lesser charge.

Giving evidence

When called into court, every witness will, almost invariably, undergo some formality to ensure that they tell the truth. 'Taking the oath' or 'swearing in' requires a religious text (e.g. the New Testament, the Old Testament, the Koran) appropriate to the individual's religious beliefs (if any) or a public declaration can be made in a standard form without the need to touch a religious artefact. This latter process is sometimes referred to as 'affirming'. Regardless of how it is done, the effect of the words is the same: once the oath has been taken, the witness is liable for the penalties of perjury.

Whether called as a witness of fact, a professional witness of fact or an expert witness, the process of giving evidence is the same.

Whoever has 'called' the witness will be the first to examine them under oath; this is called the 'examination in chief' and the witness will be asked to confirm the truth of the facts in their statement(s). This examination may take the form of one catch-all question as to whether the whole of the statement

is true, or the truth of individual facts may be dealt with one at a time. If the witness is not an expert, there may be questions to ascertain how the facts were obtained and the results of any examinations or ancillary tests performed. If the witness is an expert, the questioning may be expanded into the opinions that have been expressed and other opinions may be sought.

When this questioning is completed, the other lawyers will have the opportunity to question the witness; this is commonly called 'cross-examination'. This questioning will test the evidence that has been given and will concentrate on those parts of the evidence that are damaging to the lawyer's case. It is likely that both the facts and any opinions given will be tested.

The final part of giving evidence is the 're-examination'. Here, the original lawyer has the opportunity to clarify anything that has been raised in cross-examination but he cannot introduce new topics.

The judge may ask questions at any time if he feels that by doing so it may clarify a point or clear a point of contention, or if he thinks counsel are missing a point. The judge may allow the jury to ask questions. However, most judges will refrain from asking questions until the end of the re-examination.

Doctors in court

Any medico-legal report must be prepared and written with care because it will either constitute the medical evidence on that aspect of a case or it will be the basis of any oral evidence that may be given in the future. Any doctor who does not, or cannot, sustain the facts or opinions made in the original report while giving live evidence may, unless there are reasons for the specific alteration in fact or opinion, find themselves embarrassed. Any medical report or statement submitted to courts should always be scrutinized by the author prior to signing and submitting it to avoid factual errors (e.g. identifying the wrong site of an injury or sloppy typographical errors). However, any comments or conclusions within the report are based upon a set of facts that surround that particular case. If other facts or hypotheses are suggested by the lawyers in court during their examination, a doctor should reconsider the medical evidence in the light of these new facts or hypotheses and, if necessary, should accept that, in view of the different basis, his conclusions may be different. If the doctor does not know the answer to the question he should say so, and if necessary ask the judge for guidance in the face of particularly persistent counsel. Similarly, if a question is outwith the area of expertise of the witness, it is right and appropriate to say so and to decline to answer the question.

Anyone appearing before any court in either role should ensure that their dress and demeanour are compatible with the role of an authoritative professional. It is imperative that doctors retain a professional demeanour and give their evidence in a clear, balanced and dispassionate manner.

The oath or affirmation should be taken in a clear voice. Most court proceedings are tape-recorded and microphones are often placed for that purpose, not for amplifying speech. In some courts, witnesses will be invited to sit, whereas in others they will be required to stand. Many expert witnesses prefer to stand as they feel that it adds to their professionalism, but this decision must be matter of personal preference. Whether standing or sitting, the doctor should remain alert to the proceedings and should not lounge or slouch. The doctor should look at the person asking the questions and, if there is one, at the jury when giving their answers; they should remain business-like and polite at all times.

Evidence should also be given in a clear voice that is loud enough to reach across the court room. Take time in responding and be aware that judges (and lawyers) will be writing down or typing responses. Most witnesses will at some time have been requested to 'Pause, please' as the legal profession attempt to keep up with complex medical or scientific points.

When replying to questions, it is important to keep the answers to the point of the question and as short as possible: an over-talkative witness who loses the facts in a welter of words is as bad as a monosyllabic witness. Questions should be answered fully and then the witness should stop and wait for the next question. On no account should a witness try to fill the silence with an explanation or expansion of the answer. If the lawyers want an explanation or expansion of any answer, they will, no doubt, ask for it. Clear, concise and complete should be the watchwords when answering questions.

Becoming hostile, angry or rude as a witness while giving evidence does not help in conveying credibility of the witness to a court. Part of the role

of the lawyers questioning is to try and elicit such responses, which invariably are viewed badly by juries – expect to have qualifications and experienced and opinions challenged. It is important to remember that it is the lawyers who are in control in the courtroom and they will very quickly take advantage of any witness who shows such emotions. No matter how you behave as a witness, you will remain giving evidence until the court says that you are released; it is not possible to bluff, boast or bombast a way out of this situation – and every witness must remember that they are under oath. A judge will normally intervene if he feels that the questioning is unreasonable or unfair.

A witness must be alert to attempts by lawyers unreasonably to circumscribe answers: 'yes' or 'no' may be adequate for simple questions but they are simply not sufficient for most questions and, if told to answer a complex question 'with a simple "yes" or "no" doctor', he should decline to do so and, if necessary, explain to the judge that it is not possible to answer such a complex question in that way.

The old forensic adage of 'dress up, stand up, speak up and shut up' is still entirely applicable and it is unwise to ignore such simple and practical advice.

Preparation of medical reports

The diversity of uses of a report is reflected in the individuals or groups that may request one: a report may be requested by the police, prosecutors, Coroners, judges, medical administrators, government departments, city authorities or lawyers of all types. The most important question that doctors must ask themselves before agreeing to write a report is whether they (1) have the expertise to write such a report and (2) have the authority to write such a report. A good rule of thumb is to ensure that, when medical records will need to be reviewed, written permission to access and use those records has been given, either by the individual themselves, or by an individual or body with the power to give that consent. If consent has not been sought, advice should be sought from the relevant court or body for permission to proceed. The fact of a request, even from a court, does not mean that a doctor can necessarily ignore the rules of medical confidentiality; however, a direct order from a court is a different matter and should, if valid, be obeyed. Any concerns about such matters should be raised with the appropriate medical defence organization.

Medical confidentiality is dealt with in greater detail in Chapter 2, but in general terms the consent of a living patient is required and, if at all possible, this should be given in writing to the doctor. There are exceptions, particularly where serious crime is involved. In some countries or jurisdictions both doctor and patient may be subject to different rules that allow reports to be written without consent. If no consent was provided, this should be stated in the report, as should the basis on which the report was written. Any practitioners should make themselves aware of the relevant laws and codes of conduct applicable to them within their current jurisdiction.

In general, in most countries it is considered inappropriate for non-judicial state agencies to order a doctor to provide confidential information against the wishes of the patient, although where a serious crime has been committed the doctor may have a public duty to assist the law-enforcement system. It is usual for the complainant of an assault to be entirely happy to give permission for the release of medical facts so that the perpetrator can be brought to justice. However, consent cannot be assumed, especially if the alleged perpetrator is the husband, wife or other member of the family. It is also important to remember that consent to disclose the effects of an alleged assault does not imply consent to disclose all the medical details of the victim, and a doctor must limit his report to relevant details only.

Mandatory reporting of medical issues may be relevant in some countries; often these relate to terrorism, child abuse, use of a weapon and other violent crime.

Structure of a statement or report

The basis of most reports and statements lies in the contemporaneous notes made at the time of an examination and it is essential to remember that copies of these notes will be required in court if you are called to give live evidence.

Many court or tribunal settings have specific protocols for written report production but in general most will include the information and details referred to below. When instructed to prepare an expert report always clarify whether or not a specific structure is required and if so, follow it assiduously.

A simple professional witness statement (one that simply reports facts found at examination) will be headed by specific legal wording. Included may be the doctor's professional address and qualifications should follow. The date of the report is essential and the time(s), date(s) and place(s) of any examination(s) should be listed, as should the details of any other person who was present during the examination(s). Indicate who requested the statement, and when. Confirm your understanding of your role at the time (e.g. 'I was called by the police to examine an alleged victim of assault to document his injuries'). Confirm that the patient has given consent for the release of the medical information (if no consent is available it must be sought). By referral to contemporaneous notes outline the history that you were aware of (... 'Mr X told me that...'). In simple terms summarize your medical findings. If information other than observation during a physical examination (e.g. medical records, X-rays) forms part of the basis of the report, it too must be recorded.

Clarity and simplicity of expression make the whole process simpler. Statements can be constructed along the same lines as the clinical notes – they should structured, detailed (but not over-elaborate – no one needs to be impressed with complex medical and scientific terms) and accurate. Do not include every single aspect of a medical history unless it is relevant and consent has been given for its disclosure. A court does not need to know every detail, but it does need to know every relevant detail, and a good report will give the relevant facts clearly, concisely and completely, and in a way that an intelligent person without medical training can understand.

Medical abbreviations should be used with care and highly technical terms, especially those relating to complex pieces of equipment or techniques, should be explained in simple, but not condescending, terms. Abbreviations in common usage such as ECG can generally be used without explanation although occasionally further explanation is required.

It is preferable not to submit handwritten or proforma type statements unless absolutely unavoidable. A clear, concise and complete report or statement may prevent the need for court attendance at all, and if you do have to give evidence, it is much easier to do so from a report that is legible. The contemporaneous clinical notes may be required to support the statement and it is wise to ensure that all handwriting within such notes has been reviewed (and interpreted) prior to entering the witness box.

Autopsy reports are a specialist type of report and may be commissioned by the Coroner, the police or any other legally competent person or body. Again, as with expert reports, there may be standardized protocols or proforma. The authority to perform the examination will replace the consent given by a live patient, and is equally important. The history and background to the death will be obtained by the police or the Coroner's officer, but the doctor should seek any additional details that appear to be relevant, including speaking to any clinicians involved in the care of the deceased and reviewing the hospital notes. A visit to the scene of death in non-suspicious deaths, especially if there are any unusual or unexplained aspects, is to be encouraged.

An autopsy report is confidential and should only be disclosed to the legal authority who commissioned the examination. Disclosure to others, who must be interested parties, may only be made with the specific permission of the commissioning authority and, in general terms, it would be sensible to allow that authority to deal with any requests for copies of the report.

Doctors must resist any attempt to change or delete any parts of their report by lawyers who may feel those parts are detrimental to their case; any requests to rewrite and resubmit a report with alterations for these reasons should be refused. Lawyers may sometimes need to be reminded of the role of the doctor and their duties, both as doctors and as experts. Pressure from lawyers to revise or manipulate a report inappropriately warrants referral to their professional body, and the court should be informed. The doctor should always seek the advice of the judge of matters arising that may result in potential breaches of these important duties.

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Chapter

2

The ethics of medical practice

Introduction

Medical practice has many forms and can embrace many backgrounds and discipline. Examples include the predominantly science-based 'Western medicine', traditional Chinese medicine, Ayurvedic medicine in India, and the many native systems from Africa and Asia. It is not unusual for more than one system to work together such as Chinese and Western medicine in parts of China. There are other alternative and complementary forms of medicine with varying degrees of evidence and science on which they are based. These alternative forms of medicine may have their own traditions, conventions and variably active codes of conduct. The focus of this chapter will relate to the relatively easily defined science-based 'Western medicine', although to describe modern, science-based medicine as 'Western medicine' is historically inaccurate because its origins can be traced through ancient Greece to a synthesis of Asian, North African and European medicine.

Duties, promises and pledges

The Greek tradition of medical practice was epitomized by the Hippocratic School on the island of Kos around 400 BC. It was there that the foundations of both modern medicine and the ethical facets of the practice of that medicine were laid. A form of words universally known as the Hippocratic Oath was developed at and for those times, but the fact that it remains the basis of ethical medical behaviour, even though some of the detail is now obsolete, is a testament to its simple common sense and universal acceptance. A generally accepted translation is as follows:

> *I swear by Apollo the physician and Aesculapius and Health and All-heal and all the gods and goddesses, that according to my ability and judgement, I will keep this Oath and this stipulation – to hold him who taught me this art, equally dear to me as my own parents, to make him partner in my*

livelihood: when he is in need of money, to share mine with him; to consider his family as my own brothers and to teach them this art, if they want to learn it, without fee or indenture. To impart precept, oral instruction and all other instruction to my own sons, the sons of my teacher and to those who have taken the disciple's oath, but to no-one else. I will use treatment to help the sick according to my ability and judgement, but never with a view to injury or wrong-doing. Neither will I administer a poison to anybody when asked to do so nor will I suggest such a course. Similarly, I will not give a woman a pessary to produce abortion. But I will keep pure and holy both my life and my art. I will not use the knife, not even sufferers with the stone, but leave this to be done by men who are practitioners of this work. Into whatsoever houses I enter, I will go into them for the benefit of the sick and will abstain from every voluntary act of mischief or corruption: and further, from the seduction of females or males, of freeman or slaves. And whatever I shall see or hear in the course of my profession or not in connection with it, which ought not to be spoken of abroad, I will not divulge, reckoning that all such should be kept secret. While I carry out this oath, and not break it, may it be granted to me to enjoy life and the practice of the art, respected by all men: but if I should transgress it, may the reverse be my lot.

It is commonly believed that all medical practitioners (in the United Kingdom defined as a medical practitioner registered by the General Medical Council) have taken the Hippocratic Oath. This is in fact not the case but the key principles espoused form the basis of what is broadly called 'medical ethics'. The principles of medical ethics have developed over several thousand years and continue to evolve and change, influenced by society, the legal profession and the medical profession itself. Virtually every day a news story will run in the media which may have its basis in the interpretation of aspects of medical ethics, such as euthanasia and abortion. The laws governing the practice of medicine vary from country to country, but the broad principles of medical ethics are universal and are formulated not only by national medical associations, but by international organizations such as the World Medical Association (WMA).

International codes of medical ethics

Assorted bodies explore and attempt to define matters of medical ethics. The WMA was founded in 1947, and a central objective of the WMA has been to establish and promote the highest possible standards of ethical behaviour and care by physicians. In pursuit of this goal, the WMA has adopted global policy statements on a range of ethical issues related to medical professionalism, patient care, research on human subjects and public health. The WMA Council and its standing committees regularly review and update existing policies and continually develop new policy on emerging ethical issues. As a result of the horrific violations of medical ethics during the 1939–45 war, the international medical community restated the Hippocratic Oath in a modern form in the Declaration of Geneva in 1948 most recently amended and revised in 2006 to state:

At the time of being admitted as a member of the medical profession:
I solemnly pledge to consecrate my life to the service of humanity;
I will give to my teachers the respect and gratitude that is their due;
I will practise my profession with conscience and dignity;
The health of my patient will be my first consideration;
I will respect the secrets that are confided in me, even after the patient has died;
I will maintain by all the means in my power, the honour and the noble traditions of the medical profession;
My colleagues will be my sisters and brothers;
I will not permit considerations of age, disease or disability, creed, ethnic origin, gender, nationality, political affiliation, race, sexual orientation, social standing or any other factor to intervene between my duty and my patient;
I will maintain the utmost respect for human life;
I will not use my medical knowledge to violate human rights and civil liberties, even under threat;
I make these promises solemnly, freely and upon my honour.