

EXPERT OPINIONS AND EVIDENCE: A PERSPECTIVE FROM FORENSIC PATHOLOGY

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I INTRODUCTION

The work of Edmond and colleagues¹ is a call to arms: the participants in Australian criminal justice systems must take the provision of expert evidence more seriously. The call is based on their conclusion that Australian courts routinely admit weak, speculative and unreliable expert evidence. A narrower conclusion would be that criminal trials in Australia do not have strong safeguards against miscarriages of justice resulting from poor or weak expert evidence. Either way justice is in jeopardy. Sobering manifestations of this have been experienced internationally: the Innocence Project in the US,² the Criminal Cases Review Commission in the UK,³ the Goudge Inquiry in Canada,⁴ the Scottish Fingerprinting Inquiry,⁵ and major flaws revealed in the FBI's hairs

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¹ Gary Edmond, 'Pathological Science? Demonstrable reliability and expert pathology evidence' in Kent Roach (ed), *Pediatric Forensic Pathology and the Justice System* (Queen's Printer for Ontario, 2008) 96; Gary Edmond, 'What lawyers should know about the forensic "sciences"' (2015) 37 *Adelaide Law Review* 33; Gary Edmond et al, 'How to cross examine forensic scientists. 'A guide for lawyers'' (2014) 39 *Australian Bar Review* 174; Gary Edmond, 'The admissibility of forensic science and medicine evidence under the Uniform Evidence Law' (2014) 38 *Criminal Law Journal* 136.

² Innocence Project, <www.innocenceproject.org>.

³ Criminal Cases Review Commission, <www.ccrcc.gov.uk/>.

⁴ Stephen T Goudge, *Inquiry into Pediatric Forensic Pathology in Ontario* <www.goudgeinquiry.ca>.

⁵ The Fingerprint Inquiry, <www.thefingerprintinquiryscotland.org.uk>.

and fibres section dating back twenty years following a review.⁶ These are all reasons why we in Australia — lacking as we do the mechanisms available in North America and England — need to avoid complacency about the existence and frequency of wrongful convictions and the potential for problems with forensic medical and scientific evidence to contribute to these.

Splatt and Chamberlain are probably the best known Australian wrongful convictions. *R v Klamo*,⁷ *R v Jama*,⁸ *R v Keogh*⁹ and *R v Gilham*¹⁰ are some of the more recent examples of Australian criminal justice system failures. The failures were not primarily the result of, or even limited to, the provision of the expert evidence, but included criminal trial and related processes designed to prevent wrongful convictions. For examples of the latter, see the comments by Vincent in the report of his Inquiry.¹¹

⁶ Spencer S Hsu, 'Federal review stalled after finding forensic errors by FBI lab unit spanned two decades', *The Washington Post* (online), 29 July 2014 <https://www.washingtonpost.com/local/crime/federal-review-stalled-after-finding-forensic-errors-by-fbi-lab-unit-spanned-two-decades/2014/07/29/04ede880-11ee-11e4-9285-4243a40ddc97_story.html>.

⁷ (2008) 18 VR 644; See also Stephen Cordner, 'R v Klamo: an example of miscommunication and misunderstanding of expert evidence where the conviction was overturned' (2012) 44 *Australian Journal of Forensic Sciences* 323; Chris Maxwell, 'R v Klamo: an example of miscommunication and misunderstanding of expert evidence where the conviction was later overturned' (2014) 46 *Australian Journal of Forensic Sciences* 4.

⁸ (Unreported, Supreme Court of Victoria, Court of Appeal, Warren CJ and Redlich and Bongiorno JJA, 7 December 2009) 1; Victoria, Inquiry into the Circumstances That Led to the Conviction of Mr Farah Abdulkadir Jama, *Report* (2010). <<https://assets.justice.vic.gov.au/justice/resources/4cd228fd-f61d-4449-b655-ad98323c4ccc/vincentreportfinal6may2010.pdf>>.

⁹ [2014] SASCF 136; 121 SASR 307.

¹⁰ [2009] NSWSC 138; *Gilham v R* [2012] NSWCCA 131.

¹¹ Victoria, Inquiry into the Circumstances That Led to the Conviction of Mr Farah Abdulkadir Jama, *Report* (2010), 11: 'After following this history of the proceedings against the unfortunate Mr Jama from their origins through to their disastrous conclusions with his conviction, I have been left with the deep impression that at virtually every point and by almost everyone involved, it was handled with so little insight in to the issues which it presented that no need was seen to explore further or conduct research into them. This was particularly so in the case of those involved in the legal processes. There were ample

It is important to recognise an important feature of the context when failures of expert evidence and wrongful convictions coincide: the contribution of poor expert evidence is usually but one part of a wider system failure when wrongful convictions occur. Saks et al¹² presented their evaluation of the problems leading to the wrongful convictions in the first 86 exonerations established by the US Innocence Project. They concluded that the following problems contributed to the stated percentage of these 86 wrongful convictions:

- Eyewitness errors: 71 percent.
- Forensic science testing errors: 63 percent.
- Police misconduct: 44 percent.
- Prosecutorial misconduct: 28 percent.
- False/misleading testimony by forensic scientists: 27 percent.
- Dishonest informants (such as jailhouse informants): 19 percent.
- Incompetent defence representation: 19 percent.
- False testimony by lay witnesses: 17 percent.
- False confessions: 17 percent.

This litany of error, incompetence and malfeasance has been broadly borne out by other reviews of the Innocence Project cases.¹³ As the percentages above indicate, adding as they do to over 300 percent, each case on average had multiple problems. This is a good indicator that wrongful convictions in the United States may be better regarded as being the result of systemic failures, not single failures in one or

warning signs along the way that suggested that something was amiss, but they were simply not read’.

¹² Michael J Saks and Jonathan J Koehler, ‘The coming paradigm shift in forensic identification science’ (2005) 309 *Science* 892.

¹³ See, eg, the Innocence Project’s own evaluation of its cases: Innocence Project, above, n 2. In the first 325 exonerations: eyewitness misidentifications — 235; forensic science issues — 154; false confessions — 88; issues with informants and jailhouse snitches — 48.

other part of the system.¹⁴ Saks et al did not extend their investigations to a consideration of judicial performance, including in the appellate jurisdiction, in any of these cases. Garrett has powerfully rounded out the analysis in this regard.¹⁵

These failures are not limited to the exoneration cases so far discovered, which are almost all murders or sexual assaults. The fact that exoneration has been established is based on the power of DNA profiling techniques: the exoneration cases are cases where there was biological evidence and the exhibits have been retained. The cases were such that if the conviction was correct then the particular biological evidence must have belonged to a specific person, usually the accused. DNA profiling established otherwise in the exoneration cases. There is no reason to suppose that other cases, where there is no biological evidence or the evidence is not available, do not suffer the same problems as the exoneration cases. This is the logical basis of the Innocence Project's conclusion that there are "staggering" numbers of wrongly convicted people in American jails.¹⁶ This is why the findings of the Innocence Project must have affected confidence in the American criminal justice system.

As forensic science evidence is contributing to this, it is also why the first sentence of the introduction to a recent major review in the United States of forensic science states:

Recognizing that significant improvements are needed in forensic science, Congress directed the National Academy of Sciences to undertake the study that led to this report.¹⁷

¹⁴ Even a single failure is likely to also be a systemic failure. The trial mechanism as generally understood is meant to prevent miscarriages of justice by capturing failures in the different areas of evidence underpinning the conviction.

¹⁵ Brandon L Garrett, 'Judging Innocence' (2008) 108 *Columbia Law Review* 55; Brandon L Garrett, *Convicting the Innocent: Where Criminal Prosecutions Go Wrong* (Harvard University Press, 2011).

¹⁶ Innocence Project, *Mission Statement* <www.innocenceproject.org/about/Mission-Statement_php>.

¹⁷ National Research Council of the National Academies, *Strengthening Forensic Science in the United States: A Path Forward* (The National Academies Press, 2009).

One example serves to illustrate the scope of the conclusions in the report:

... with the exception of nuclear DNA analysis ... no forensic method has been rigorously shown to have the capacity to consistently and with a high degree of certainty demonstrate a connection between evidence and a specific individual or source.¹⁸

The penny is beginning to drop in Australia. The work in South Australia over very many years by Robert Moles and Bibi Sangha on miscarriages of justice has not only led to substantial changes in the law in that state, but has altered attitudes and is leading to law changes in other states.¹⁹ Edmond's work has been quoted extensively in a recent leading judgement by The President of the Court of Appeal in Victoria, Justice Maxwell.²⁰ Justice Maxwell also recently delivered a lecture on preventing miscarriages of justice related to expert forensic evidence, and has chaired a system wide approach to a new Practice Note on the provision of expert evidence in criminal trials in Victoria.²¹ Malcolm McClusker AC QC, former Governor of Western Australia, has recently highlighted many such miscarriages in Australia and even opined the possible need for a systematic review of all of the cases of South Australia's retired head of forensic pathology following the overturning of the conviction of Keogh.²²

¹⁸ Ibid 7.

¹⁹ Bibi Sangha and Robert Moles, *Miscarriages of Justice: Criminal Appeals and the rule of law in Australia* (LexisNexis Butterworths, 2015). See also Networked Knowledge <netk.net.au/>.

²⁰ *Tuite v The Queen* [2015] VSCA 148.

²¹ Justice Chris Maxwell, 'Preventing Miscarriages of Justice: Expert Forensic Evidence and Collaborative Law Reform' (Speech delivered at the Conference of District and County Court Judges, Melbourne, 10 April 2015); Supreme Court of Victoria, *Practice Note No 2 of 2014 — Expert Evidence in Criminal Trials*, 25 June 2014.

²² Malcolm McCusker, 'Miscarriages of Justice' (Speech delivered at the Anglo-Australasian Lawyers Society, Western Australia, 24 June, 2015).

II A FRAMEWORK FOR EXPERT EVIDENCE IN FORENSIC PATHOLOGY

Many forensic pathologists regard the trial as the true test of their evidence, and when the adversarial process is working well, this is probably right. The two parties are well prepared, have been well advised by experienced forensic pathologists of integrity who work in well organised institutions, there is clarity about the issues in the case to which the forensic pathology will be applied, and the parties/experts have clarified their differences beforehand. But this is probably not the usual situation. The advocates are time poor, the defence advocate has been instructed in the weeks before the trial, the defence have difficulty accessing hard to find forensic pathology expertise to advise them (and in any event, most if not all the forensic pathologists are employed by the state), and even if one can be found s/he has little time to devote to the case anyway, preparation time will have been constrained by pressure of other work and remuneration, the forensic pathology report has probably been written long before clarity has emerged about the issues in the case and therefore the report does not address the real issues now at stake, the pathologist actually does not know what the real issues are nor what the detailed facts of the case are, the advocate does not have a close understanding of the contribution forensic pathology could make, there is insufficient time for a conference between the advocate and the expert, and so on.

Problems with the provision of expert evidence and their contribution to miscarriages of justice, and the realities of the administration of justice are sufficiently sobering to suggest a re-ordering of the priorities of forensic pathology: forensic pathology expertise should be focused on minimising or avoiding any adverse outcomes associated with its contribution. (This is the parallel in forensic pathology to the ancient Hippocratic admonition, albeit in Latin, applied in clinical medicine: *primum non nocere*, or ‘first do no harm’). The following three propositions are offered:

The discipline of forensic pathology must ensure that:

1. The forensic pathology work undertaken meets relevant technical and professional standards.
2. The conclusions and opinions flowing from that work are reliable.
3. The conclusions and opinions are addressed to the relevant issues in the case clearly, unambiguously, and in terms able to be understood by those being communicated with.

These propositions apply to both the individuals and the institutions involved in producing the forensic pathology outputs.

III THE FORENSIC PATHOLOGY WORK MEETS RELEVANT TECHNICAL AND PROFESSIONAL STANDARDS

What we are really discussing when we talk about work meeting a standard is quality management, in this case quality management in forensic pathology. At the end of this paper, is a brief lexicon in quality management which conveys something of its content. A Quality Management System (QMS) exists to improve the probability that the results/products/reports of the laboratory/factory/organisation are reliable. Historically, quality management was a development that accompanied mass production. Mass production relies on complex industrial systems with large numbers of groups, individuals and processes operating in an integrated fashion to produce a standard product. Mass production is not only a technological achievement. Implementing a QMS can be administratively intensive. Ensuring that the required standards are being met in all of the key components of the production process (whether that process produces a test result, a commercial product or a professional report) is demanding. In industry, the customer who purchases the product will determine the ultimate standard the product must meet, subject to any imposed regulatory standards. In

forensic pathology, which is a subspecialty of medicine, the standards are professional medical and scientific standards, the details of which are beyond the scope of this paper. But it is these standards and whether they are being met, and not the more mundane administrative work of how the organisation ensures they are being met, that most people are interested. As with much of medicine, the standards can be found in a variety of different places, in documents created for a variety of different purposes. These include, but are not limited to:

- Curricula for training in forensic pathology.²³
- Specific autopsy related standards from professional organisations.²⁴
- Reports written for major inquiries.²⁵
- Standards developed by standard setting bodies.²⁶
- Procedural guidelines for specific circumstances, for example, Disaster Victim Identification procedures set out by INTERPOL.²⁷

²³ See, eg, Royal College of Pathologists (UK), *Curriculum for specialist training in histopathology and related subspecialties* <www.rcpath.org/education>; Royal College of Pathologists of Australasia, *Trainee Handbook* <<http://www.rcpa.edu.au/static/File/Asset%20library/public%20documents/Training/General%20Information/TraineeHandbook.pdf>>.

²⁴ See, eg, Home Office, the Forensic Science Regulator, Department of Justice and the Royal College of Pathologists, *Code of practice and performance standards for forensic pathologists in England, Wales and Northern Ireland* (Home Office, the Forensic Science Regulator, Department of Justice and the Royal College of Pathologists, 2012); Royal College of Pathologists, *Guidelines on Autopsy Practice - best practice scenarios* <<http://www.rcpath.org/publications-media/publications/guidelines-on-autopsy-practice-best-practice-scenarios>>; National Association of Medical Examiners, Forensic Autopsy Performance Standards, 430 Pryor Street, SW. Atlanta, Georgia 30312 USA.

²⁵ See, eg, Stephen Cordner et al, *A Model Forensic Pathology Service. Prepared for the Inquiry into Pediatric Forensic Pathology, Ontario, Canada* <http://www.attorneygeneral.jus.gov.on.ca/inquiries/goudge/policy_research/pdf/Cordner_Model-Forensic-Pathology.pdf>.

²⁶ See, eg, National Pathology Accreditation Advisory Council, *Requirements for the facilities and operation of mortuaries*. (Australian Government Department of Health, 2009).

²⁷ Interpol, *Disaster Victim Identification Guide*, <www.interpol.int/Media/Files/INTERPOL-Expertise/DVI/DVI-Guide>.

- Principles and processes developed by international bodies, for example, the Minnesota Protocol for the investigation of extrajudicial killings;²⁸ the Istanbul protocol for the investigation of torture;²⁹ ICRC protocols for “The Missing”;³⁰ the WHO, PAHO and ICRC guidelines for dealing with mass deaths following a disaster.³¹
- WHO guidance on Ethical Practice in Laboratory Medicine and Forensic Pathology.³²
- The forensic pathology literature.
- Standards developed within the forensic pathology organisation.

It is one thing to locate the standards, it is quite another for institutions and individuals to articulate the standards they agree to be held to, and then be confident that they are meeting these standards and can demonstrate that they are doing so. Audit against nominated standards is a crucial element of demonstrating such compliance, but one should not necessarily equate successful audit performance with actual compliance. The Mid Staffordshire Hospital experience is an example of the failure, on a major scale, of audit to uncover gross neglect of hospital patients over a period of years

²⁸ *United Nations Manual on the Effective Prevention and Investigation of Extra-Legal, Arbitrary and Summary Executions*, UN Doc E/ST/CSDHA/.12 (1991). This is also known as the Minnesota Protocol.

²⁹ Office of the United Nations High Commissioner for Human Rights, *Manual on the Effective Investigation and Documentation of Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment*. (United Nations Publication, 1999). This is also called the Istanbul Protocol.

³⁰ International Committee of the Red Cross, *The Missing: Action to resolve the problem of people unaccounted for as a result of armed conflict or internal violence and to assist their families* (International Committee of the Red Cross, (2003); International Committee of the Red Cross, *The Missing and their families: documents of reference* <<http://www.icrc.org/eng/resources/documents/publication/p0857.htm>>.

³¹ Oliver Morgan, Morris Tidball-Binz and Dana van Alphen (eds), *Management of Dead Bodies after Disasters: A Field Manual for First Responders* (Pan American Health Organization, 2006, 2009): (PAHO/WHO/ICRC/IFRCRCS).

³² Mohamed M El-Nageh et al, *Ethical Practice in Laboratory Medicine and Forensic Pathology* (WHO Regional Publications, 1999).

amounting to abuse and leading to preventable mortality at a high level.³³ Essentially, assuming that appropriate standards actually exist, are known, understood and accepted, meeting them is a responsibility relying both jointly and severally on personal and institutional ethics.

Consider, for example, the list below of ‘the duties and responsibilities of the pathologist (emphasis added) ... considered particularly important’ by the Home Office Policy Advisory Board, the Forensic Science Regulator and the Royal College of Pathologists:

- Personal expertise: keeping up to date with the latest methods and thinking by, for instance, actively pursuing relevant continuing professional development (CPD) programmes.
- Standards: accepting the use of agreed documented procedures and participating in appropriate schemes of peer review and audit.
- Integrity of evidence: ensuring that the integrity of evidence is not compromised.
- Complying with the obligations placed on expert witnesses and, in particular, their overriding duty to the Court.
- Ensuring the fair presentation of findings: presenting findings and evidence in a balanced and impartial manner, and confining opinions to those based on personal skills and experience, referring to the work of other experts in the field where appropriate.
- Understanding the criminal justice system: recognising the importance of the disclosure of information to relevant parties.
- Service provision: addressing and, where possible, meeting customers’ needs, including timeliness, providing relevant information and communicating effectively with police officers and others in the investigative process.³⁴

The individual pathologist indeed has the central role in accountability for the above responsibilities. Nevertheless, most forensic pathology is now practised in an institutional setting and this means that the institution as well as the individual pathologist must both shoulder responsibilities for their domains. Indeed, so important

³³ The Mid Staffordshire NHS Foundation Trust Public Inquiry, <www.midstaffpublicinquiry.com>.

³⁴ Ibid 31.

is the latter, one would have to question whether it is feasible or acceptable for an individual to practise properly forensic pathology alone, separate from an institutional or group practice setting. The relationship between the individual pathologist and the forensic pathology institution will be crucial in determining whether these responsibilities, and others, are properly discharged.

The analogue is the relationship between a hospital (or group practice) and its consultant or specialist medical staff. The tension is between, on the one hand, the corporate aims and objectives of the hospital and its desire to have the consultants aligned with these, and on the other hand, the consultants' individual professional medical obligations to patients. In the context of a hospital, it is easy to imagine dilemmas arising, for example, in the allocation of resources. How much will a defence of "acting under orders" to conserve resources protect the doctor ethically, when the doctor, aligned with the hospital's corporate ethic, allows this to influence clinical decisions in a way which might be detrimental to the patients interests? The doctor will have reasonable expectations of the hospital to provide certain infrastructure to enable the doctor to practise, and the hospital will have reasonable expectations of the doctors. These expectations need to be aligned to make sure things do not fall between the cracks of mis-alignment.

The more general obligations for which the forensic pathology group or institution is responsible are to ensure that:

- Properly qualified people are appointed, and roles, responsibilities and accountabilities are well defined.
- Appropriate facilities and equipment are available and related systems and processes are in place.
- Appropriate professional and technical standards are established for the conduct of the work.
- Such work is properly audited so that the institution, its staff, and the consumers of the results can all have confidence that the standards are being met.

- As a corollary of this, the institution has procedures in place to catch bad work before it escapes the institution.
- The forensic pathologists engage in relevant continuous education to ensure knowledge, skills and competencies are maintained.
- Systems are in place to bring to the individual forensic pathologist's attention deficiencies in, or disagreements with, aspects of his/her work.

The general role of the individual expert is to use the framework provided by the institution to discharge his/her obligations to a reasonable standard. The joint nature of the enterprise means that the individual expert must actively participate in (ie. comply with the requirements of) the quality system so that both the institution and the expert can develop the evidence to assess whether the reasonable standards are being met by each of them.

IV THE CONCLUSION AND OPINIONS FLOWING FROM THAT WORK ARE RELIABLE

Is it enough that the pathology work meets a particular set of technical standards? Technical competence is one thing; reliable conclusions and opinions may well be another. What more is required to ensure that the conclusions and opinions we are producing are reliable? Every forensic pathologist reading this paper no doubt believes that the reports s/he is producing, and the subsequent evidence being given in court, are reliable. If the reliability of a particular piece of expert evidence, or of an expert opinion, is the stability or reproducibility of that evidence or opinion when provided by different experts in response to the same issue but in different places at different times, which is the forensic pathology analogue of a definition of reliability used in science, this is probably not the sense in which the pathologist believes his/her evidence is reliable. In brief, this sense of reliability means that other forensic pathologists would give exactly the same evidence. The pathologist probably thinks of reliability in a broader sense of being trustworthy

or dependable. This broader view encompasses the reality that there is not a specific demonstrable basis for everything that is given as evidence or opinion. ‘What was the force used to cause this injury?’; ‘how long would the victim have survived with this constellation of injuries?’; ‘what would have been the effects of the alcohol level on this individual?’; ‘was this baby smothered?’; ‘is this constellation of injuries a pattern and does this pattern tell us anything?’ The answers to these questions — and a multitude of others — require applications of general principles and practice to specific fact situations, and it is difficult to capture the thinking involved by reference to standards.

Another perspective is that of the head of a forensic pathology institution called to give evidence to an inquiry being held into a wrongful conviction where controversial forensic pathology evidence was provided by a forensic pathologist from that institution. The inquiry explains that it is no answer for the institution to say that the moment a pathologist signs a report and/or enters the witness box, all responsibility of the institution ceases. Thus, the inquiry will want to know what the institution did to satisfy itself that the oral forensic pathology evidence provided was fit for purpose, dependable, or reliable. Essentially, this question is: what is your quality management system, does it extend to the provision of expert opinions and oral evidence, and is it effective? That is, does your quality management system ensure the production of reliable forensic pathology conclusions, written opinions and oral evidence? The answer from the perspiring head might include elements such as:

- The institution does have a quality management system.
- This includes a set of standards (for example, as set out above, and including opportunities for case presentations and discussion amongst pathologists, minimum standards to be followed during autopsies for different case types, requirements for reports — including the conclusions — in certain case types to be reviewed by a second pathologist).
- Documented policies and procedures exist designed to implement the standards.

- Audits are undertaken to check compliance with the standards.
- A system of continuous improvement and corrective action is in place to respond to actual or threatened deviations from the standards.
- The overall operational and quality system has achieved externally assessed accreditation against externally set criteria.

But difficulties can arise, and not everyone will agree on their resolution. For example, what should the test be for a second pathologist, reviewing the report of the pathologist who undertook the autopsy, before signing the report out as acceptable? Is it complete agreement with the report including its conclusions and opinions in all their detail? Or is it that the pathologist agrees that the report including its conclusions and opinions are reasonable? At the Victorian Institute of Forensic Medicine, the reviewing pathologist (having confirmed what components of the material s/he has reviewed) attests as follows:

In my opinion the critical observations/findings in this case are independently reviewable and the conclusions based upon them are reasonable (This does not mean the reviewer necessarily endorses the conclusions).³⁵

The reviewing pathologist also attests that s/he has discussed the review with the reporting pathologist. The quoted formulation takes account of the fact that, short of moving to a system where each homicide or suspicious death autopsy becomes the joint responsibility of two pathologists, it is simply not feasible for the second pathologist to put themselves in possession of all the detailed material which the first pathologist has taken account of in producing the report. The second pathologist confirms that the findings are reviewable (that is, there is independently assessable evidence available of the truth of the observations or findings, for example photographs, CT scans, histology slides), so that another pathologist

³⁵ VIFM Forensic Pathology Service, *VIFM Technical Quality Review of Forensic Cases*; See: Stephen Cordner et al, above n 25, app 5.

can come to his or her own conclusion about them; and that the conclusions arrived at by the first pathologist are reasonable conclusions.

How do individual pathologists know whether their work is reliable? A single practitioner cannot, properly, simply assert that, as s/he has the requisite qualifications, and is employed as a forensic pathologist, s/he functions as a reliable forensic pathologist. One way to know whether one's own work is reliable is to participate fully in a properly constructed quality management system designed to improve the reliability of the output of the forensic pathology institution. This is probably the best safeguard against unreliability, and surely it is ethically mandatory for a forensic pathologist to be active in the pursuit of reliability of their output and that of colleagues in the institution. There is an ethical symmetry here: on the one side the institution should have an effective quality management system, and on the other the forensic pathologist should actively engage with it.

V THE CONCLUSIONS AND OPINIONS ARE ADDRESSED TO THE RELEVANT ISSUES IN THE CASE IN A MANNER WHICH IS CLEAR, UNAMBIGUOUS AND COMPREHENSIBLE

The successful discharge of this responsibility is not entirely in the hands of the forensic pathologist, or the forensic pathology institution. In providing evidence to a court, in writing or orally, that evidence is applied in some way to the factual and legal issues or disputes in the case. Unless there is a dialogue with the forensic pathologist about what those issues or disputes are, and this may require the forensic pathologist to understand in detail some of the circumstantial facts of the case, it may be difficult for the pathologist to know if the work s/he has done is being put to the best use. Indeed, without such dialogue the work may be wrongly used or misunderstood. As set out below, it may be that this is one reason

why forensic pathologists need to move from being passive bystanders in the trial process to more active participants in trying to find out what these issues and disputes are. In this way, the chances of the forensic pathology evidence being applied properly to resolve the issues in the case may be improved. It is in this general area that the new Supreme Court of Victoria Practice Note could play a significant role.

This Practice Note, entitled ‘Expert Evidence in Criminal Trials’,³⁶ came into force in Victorian trial courts on 1 July, 2014.³⁶ Its stated purposes are:

- a) To enhance the quality and reliability of expert evidence relied on by the prosecution and the accused in criminal trials and proceedings under the *Crimes (Mental Impairment and Unfitness to be Tried) Act 1997*.
- b) To encourage the early identification of issues in dispute that will be the subject of expert evidence.
- c) To improve the utility of expert evidence by ensuring that it is focused on the issues genuinely in dispute.
- d) To make use of existing pre-trial and trial processes at the earliest practicable opportunity to advance these purposes.

As explained by Justice Maxwell, the Note was a ‘collaborative law reform effort’ developed by a working group comprising judges (Court of Appeal, Supreme and County Courts), forensic scientists (Victorian Institute of Forensic Medicine and Victoria Police Forensic Services Department) and legal practitioners (Director of Public Prosecutions in person, Office of Public Prosecutions, Victoria Legal Aid and the Criminal Bar Association).³⁷ The Note does not go to the fundamental question of whether the area of expertise being relied upon is reliable; though this is a live issue as the US National Research Council report and the recent decision in

³⁶ Supreme Court of Victoria, *Practice Note No 2 of 2014 — Expert Evidence in Criminal Trials*, 25 June 2014.

³⁷ Justice Chris Maxwell, above n 21.

Tuite confirm.³⁸ The same collaboration, buttressed by academic legal input, is currently working on an approach to this issue.

The note begins, unexceptionally, by reminding readers of the obligations of the expert including ‘... an overriding duty to assist the Court impartially, by giving objective, unbiased opinion on matters within the expert’s specialised knowledge’.³⁹ The Note applies to “expert reports” whether a primary or secondary/responding expert report. A primary expert report can be requested by the accused, in relation to specific matters, following receipt of a “forensic report”, which is any one of the ordinary forensic reports currently produced for a criminal trial (for example, an autopsy report, or a DNA analysis report). The primary expert report, amplifying the forensic report in ways required by the accused, must be provided by the prosecution within a reasonable time.

The primary expert report must comply with the following:

- 4.1 All expert reports to which this Practice Direction applies (including primary expert reports and responding expert reports) shall state the opinion or opinions of the expert and shall state, specify or provide —
 - (a) the expert’s name and place of employment;
 - (b) an acknowledgement that the expert has read this Practice Direction and agrees to be bound by it;
 - (c) whether and to what extent the opinion(s) in the report are based on the expert’s specialised knowledge, and the training, study experience on which that specialised knowledge is based;
 - (d) the material, observed facts, reported facts, assumed facts and other assumptions on which each opinion expressed in the report is based (a letter of instructions may be annexed);
 - (e)
 - (i) the reasons for,
 - (ii) any literature, research or other materials or processes relied on in support of,
 - (iii) a summary of —
each such opinion;

³⁸ National Research Council of the National Academies, above n 17; *Tuite v The Queen* [2015] VSCA 148.

³⁹ Supreme Court of Victoria, *Practice Note No 2 of 2014 — Expert Evidence in Criminal Trials*, 25 June 2014, [2.1].

- (f) (if applicable) that a particular question, issue or matter falls outside the expert's specialised knowledge;
- (g) any examinations, tests or other investigations on which the expert has relied, identifying the responsible laboratory by which, and the relevant accreditation standard under which, the examination, test or other investigation was performed;
- (h) a declaration that the expert has made all the inquiries and considered all the issues which the expert believes are desirable and appropriate, and that no matters of significance which the expert regards as relevant have, to the knowledge of the expert, been withheld;
- (i) any qualification of an opinion expressed in the report, without which the report would or might be incomplete or misleading;
- (j) any limitation or uncertainty affecting the reliability of
 - (i) the methods or techniques used; or
 - (ii) the data relied on,to arrive at the opinion(s) in the report; and
- (k) any limitation or uncertainty affecting the reliability of the opinion(s) in the report as a result of—
 - (i) insufficient research; or
 - (ii) insufficient data.

4.2 Where an expert is aware of any significant and recognised disagreement or controversy within the relevant field of specialised knowledge, which is directly relevant to the expert's ability, technique or opinion, the expert must disclose the existence of that disagreement or controversy.

Interestingly, the Note has a couple of appendices with lists of questions to be answered if the issue raised by the commissioning party involves the cause of death, or relates to the medical examination in a sexual assault case. The Note refers to these appendices as follows:

Additional content of expert reports on certain matters

- 5.1 Where a primary expert report concerns a particular matter (for example, cause of death) and questions are specified in the Schedule in relation to matters of that kind, the report shall (in addition to complying with 4.1) include answers to those questions.
- 5.2 Where a primary expert report includes answers to such questions, any responding report shall (in addition to complying with 4.1)

- include answers to the same questions but only insofar as there is disagreement with the answers in the primary expert report.
- 5.3 Nothing in 5.1 or 5.2 prevents a commissioning party from asking additional questions of an expert.

There is obviously scope for development of these appendices. They reflect an understanding that there are common areas where issues can arise. For the forensic pathologist, for example, establishing the cause of death is one such area. The appendix lists questions which must be answered in the primary expert report, without limiting other questions which can be posed by the commissioning party. Of course, in some cases, some of the questions may not be relevant, and this can be stated.

The party providing the primary expert report (almost always the prosecution) must make arrangements for the expert to be available to be interviewed by the party receiving the report (almost always the accused); however, the expert may refuse the request to be interviewed unless the court orders otherwise. The prosecution is entitled to be present at the interview which can occur under conditions to be agreed to by the parties. If the report, or the interview will rely upon the facts of the case, the parties can try to agree a statement of facts (which may include facts which are agreed, and facts which are in dispute).

The court has been provided with explicit guidance and options to consider in becoming more active in resolving issues of expert evidence.

Pre-hearing discussion of expert evidence

- 10.1 This rule applies where more than one party wants to introduce expert evidence on the same issue or on related issues.
- 10.2 The Court may direct the experts to—
- (a) discuss the expert issues in the proceedings; and
 - (b) prepare a statement for the Court of the matters on which they agree and disagree, giving their reasons.

- 10.3 Except for that statement, the content of that discussion must not be referred to at the trial of the accused without the Court's permission.
- 10.4 The Court may convene a hearing at which—
- (a) the Court or any party may seek clarification of any aspect of the expert evidence; and
 - (b) the Court may direct the experts to narrow the areas of disagreement.
- 10.5 A party may not introduce expert evidence without the court's leave if the expert has not complied with a direction under 10.2 or 10.4.

Consecutive or concurrent evidence

- 11.1 Where—
- (a) two or more parties have served expert evidence relating to the same issue or relating to two or more closely related issues;
 - (b) the commissioning parties agree; and
 - (c) the Court so orders,
- evidence may be given by the experts consecutively (ie one after the other) or concurrently (ie with all of the experts present in court, sworn or affirmed at the same time).
- 11.2 The procedure to be followed for consecutive or concurrent evidence is to be determined by the Court, with the expectation that the parties will have conferred in advance and attempted to agree on the procedure.

There are a number of sections in the note dealing with issues of process. The Note does not alter existing obligations (for example of disclosure), and does not cover mental state or mental illness expert issues related to sentencing. It provides explicit tools for the court or the parties (usually the defence) to require more work by the experts being relied upon by the prosecution, and to clarify the expert evidence in advance of the trial. There is anecdotal evidence of some positive impact of the Note,⁴⁰ but also acceptance that familiarity with it will take some time to spread through the bar. In my view, judges so inclined now have an articulated framework for requiring the parties to engage about issues of expert evidence if they anticipate that these might be difficult, crucial, or complex for the jury. The adversarial approach is at its strongest when the issues are as narrow as possible, and the parties are prepared for the

⁴⁰ Justice Chris Maxwell, above n 21.

engagement. Working to narrow the issues as much as possible pre-trial will undoubtedly mean that in some cases, the issues can be completely agreed beforehand; the court can then focus its attention on to the remaining non-expert issues.

The Note represents a new development. In the background, at the VIFM is a requirement for all pathologists to be accompanied to court by a colleague at least once per year, for the colleague to listen to the evidence provided, for the two pathologists to discuss this, and for this exercise to be documented. Controlling the quality of the evidence given in the witness box is the most difficult part of the quality assurance process. In my view, the trial system leaves too much to chance and relies too heavily on this phase without having always undertaken sufficient preparation. Above, it was mentioned that an important principle for forensic pathologists should be “*primum non nocere*”. Many pathologists, with some justification, believe they are adhering to this dictum when they do not include in their autopsy reports any, or much in the way of, opinions or conclusions. If the facts and issues of the case are not known, prematurely making conclusions and opinions may be problematic. Thus, they wait until they are asked about their conclusions and opinions in court. The court may not know the real views of the pathologist until the trial is underway, and evidence is being led, and produced in cross examination. For many cases where the expert evidence is not an issue, no problems occur, but in other cases, this will be a source of real risk for justice. This is where the Note comes into its own.

VI CONCLUSION

Changes are afoot in the provision of expert evidence to courts in parts of Australia. This is being driven by better understanding of the vulnerabilities of the criminal trial, vulnerabilities which have been exposed locally and internationally. One particular vulnerability is dealing with problematic expert evidence. Larger forensic institutions and laboratories generally have quite well developed

quality management systems. Such systems are quite generic and were designed mainly for pharmaceutical, medical, manufacturing and commercial contexts, and thus work reasonably well to the point that a result or a report is produced in a forensic context. What is more difficult is controlling for quality after the report has been produced, and the expert is in the witness box. In this respect, the development in Victoria of a new Practice Note focussing on this end of the process is novel. The Note focuses on the period *after* the provision of the forensic report to the parties, not the period before its production. This period is much more in the control of the court and the parties, and the mechanisms now exist in Victoria to ensure that the experts work for them — and thus for justice.

A *Some common terms in Quality Management: A brief lexicon*

Accountability	A system or process designed to assure the proper discharge of responsibility by a person or institution; ‘the obligation to answer for a responsibility conferred’; ⁴¹ this system or process is an important part of the governance of an institution.
Accreditation	A formal audit by independent external auditors of institutional processes against agreed industry wide standards. Passing the audit means the institutions is accredited.
Audit	Evaluation of compliance with a standard.
Bias	An unjustified preference.
CIRCA system	Continuous Improvement Request Corrective Action (or other similarly named) system designed to capture non-conforming testing or procedures, or near miss non conformities, document their investigation and the implementation of the required corrective action to prevent recurrence.
Code of conduct	A document setting out the expected ethical behaviour an attitude of the group; usually intended as guidance for the group and as a statement for clients and stakeholders.
Contextual bias	An unjustified preference for a particular opinion induced by circumstantial or other contextual information that is not relevant for forming that opinion.

⁴¹ Ontario, Inquiry into Pediatric Forensic Pathology in Ontario, *Report* (2008), vol 3, 332.

Credibility	A personal or institutional characteristic of providing reliable, correct advice and opinion.
Document control	The process of creating and keeping up to date documents setting out the institution's Policies and Procedures. This process underpins the institution's quality management system.
Effectiveness	A measure of whether the output achieved matched what was expected or required.
Efficiency	A measure of output achieved for the resources used.
External Quality Assessment	A measure of reliability. Checking results of measurements or observations produced at one site by comparing with the results obtained by other sites on the same material distributed by an external agency.
Governance	A system of oversight within an organisation to assure the proper discharge of responsibility.
Key Performance Indicator	A measure of performance which incorporates elements such as quality or timeliness as opposed to an output measure which is simply a number of particular outputs. One KPI might be the average time taken to produce reports (or the average time taken for the body to be available for funeral directors after the autopsy is ordered), whereas the output measure is simply the number of reports produced in a month or a year (or the number of autopsies performed).
Knowledge (Specialised knowledge)	'acquaintance with facts, truths or principles as from study or investigation'. Macquarie Dictionary. 'The word knowledge connotes more than subjective belief or unsupported speculation ... (It) applies to any body of known facts or to any body of ideas inferred from such facts or accepted as truths on good grounds'. Blackmun J. <i>Daubert v Merrell Dow Pharmaceuticals Inc.</i> 509 US 579 (1993). (Specialised knowledge is knowledge which is outside that of persons who have not by training, study or experience acquired an understanding of the subject matter. <i>Honeysett v The Queen.</i> (2014) 88 ALJR 786).
Mission (statement)	A statement setting out what the organisation exists to do.
Non-conforming testing or procedure	Identified process, test or procedure in a particular case that was not performed in accordance with the requirements set out in the Work Instructions or the Policies and Procedures Manual.
Peer review	Review by a person of material generated by another person of the same kind. For example, review by one forensic pathologist of the report and findings of another forensic pathologist for the purpose of assuring and/or controlling the quality of the report and its

	findings.
Policies and Procedures (Manual)	Formal written documents setting out the requirements of the organisation. Policies are the broader statements of principles, procedures are the actions necessary to implement the policies.
Quality assurance	A step or activity designed to improve the probability that the results of the individual/organisation are reliable.
Quality control	A step or activity designed to ensure that requirements for quality of the particular service are fulfilled.
Quality management system (QMS)	The overall system within an organisation designed to improve the probability that its results are reliable. The elements controlled by processes within the QMS include, for example: qualifications and training of staff; product design; product specifications; purchasing of key components; traceability and reviewability of production; inspection, audit and identifying non-conforming output; equipment maintenance and servicing; controlled documentation etc.
Reliability	The quality of being trustworthy or safe. The reliability of a scientific test result or a medical opinion is its stability when applied by different observers in different places at different times.
Responsibility	The duty to perform a task or function properly.
Reviewability	One of the aims of the autopsy (or other forensic medical or scientific test) is that it is conducted in such a way that another forensic pathologist (or scientist, as the case may be) at another time can independently come to his/her own conclusions about the death.
Standard(s)	A required or anticipated level of performance or achievement of a system, part of a system, measurement or test.
Standard Operating Procedures	Document setting out the standard procedures to be followed. A synonym for Policies and Procedures/Work Instructions.
Transparency	When this term is used in relation to institutional processes, it means that these processes can be evaluated externally because the detail of the process is available to be examined.
Validity (validation)	The quality of being well-founded or sound. In relation to a measure or a result, it means the extent to which the measure or result reflects the truth of the phenomenon. (The process by which validity is established).
Work Instruction	Detailed standard operating procedures.