How effective? How efficient?

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The Coroner's role in medical treatment related deaths.

Health services today are increasingly subject to outcome evaluation and audit from both a financial and operational perspective. 'Value for money' has become a valid measure of health care provision and while this is evaluated internally in health care organisations and by governments, a number of external audit processes are in place. The Coroner's Office is one external agency that has the power and obligation to carry out an evaluation of health care services in selected cases. The Coroner's audit however, is a reactive process and only involves a limited number of deaths. This article reviews the way in which the Coroner is involved in the investigation of medical treatment related deaths and explores the issues surrounding the effectiveness and efficiency of this process.

Coroners have some of the widest legal powers when it comes to the investigation of deaths.[1] Such powers of investigation are limited to deaths that are within the jurisdiction of the Coroner.

Reportable Death

'Reportable death'[2] according to the *Coroners Act 1985* (Vic.) means a death —

- **that appears to have been unexpected, unnatural or violent or to have resulted, directly or indirectly, from accident or injury; or**
- **that occurs during an anaesthetic; or**
- **that occurs as a result of an anaesthetic and is not due to natural causes; or**
- **that occurs in prescribed circumstances; or**
- **of a person who immediately before death was a person held in care; or**
  - **— of a person whose identity is unknown; or**
  - **— that occurs in Victoria where a notice under s.19(1)(b) of the *Registration of Births Deaths and Marriages Act 1959* has not been signed; or**
  - **— that occurs at a place outside Victoria where the cause of death is not certified by a person who, under the law in force in that place, is authorised to certify that death.**

The definitions in the Act[3] make it is clear that deaths occurring as a result of, or while administering medical treatment, could be the subject of a coronial investigation. Despite this, the level and depth of investigations into medical treatment related deaths in coronial practice appears from a medical perspective to be rather limited. This seems curious given the emphasis that Coroners place on the identification of avoidable deaths.

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Reportable and reported deaths

The coronial jurisdiction is used to ensure that untoward events, such as deaths occurring in particular circumstances, are thoroughly investigated to the satisfaction of the community. Deaths that appear to have been unexpected, unnatural, violent or to have resulted directly or indirectly from accident or injury must, by law, be reported. Perhaps one of the key words here is 'unexpected'. Indeed, we do not expect accidents to occur to us and therefore a death arising from an accident, for example, a bridge collapse, is by its very nature to some extent unexpected, a sign that something has 'gone wrong' and that an investigation needs to be carried out to find out why. This expectation is not just an expectation of lawyers, politicians or special community groups, but is a general community expectation based perhaps on the fact that we may all at some time find ourselves driving across a bridge.

Medical treatment related deaths

If we apply this same logic to a death in a hospital or a death associated with medical treatment, concern that 'something must have gone wrong' is not necessarily present. Indeed, there is a community view that hospitals are a place where some people being treated by doctors will die.[4]

Medical treatment and diagnosis is recognised not to be infallible. Indeed the way in which the law historically has treated negligence in a medical setting has been very different to the way in which it has been treated in a non-medical setting.[5] As a result, the simple fact that a person has died in hospital or has died following medical treatment is not of itself enough to raise concern by the community, or for that matter to attract the attention of the police or the Coroner.

Reporting of deaths

Given Coroners' specific jurisdiction into medical treatment related deaths, it is interesting that the percentage of hospital deaths investigated by Coroners is very small. This may be because most deaths are an example of a 'natural' process arising out of 'natural' disease that it is believed was treated adequately. However, can we be sure of this? Coroners wait for a death to be reported to them. There is little, if any, proactive ability for a Coroner to seek out reportable deaths. Whilst any individual can report a death to a Coroner, particular individuals including police officers and doctors are mandated to report reportable deaths. In order to report a reportable death, these individuals must have a good understanding of what a reportable death is, as well as the desire to report such deaths for the good of the community and to comply with the law.

Confusion and lack of clarity in the legislation make identifying reportable deaths extremely difficult. For example, the definition of 'unexpected or unnatural' is far from clear.[6] These issues of definition raise real problems for medical practitioners when considering whether the death of their patient should be reported to a Coroner.

In contrast, deaths occurring in a setting of an accident or injury are far more straightforward and nearly all of these are referred to Coroners for investigation. As a result, these cases provide a useful model of how the coronial process investigates deaths occurring in a setting where medical treatment has been provided.

Trauma related death

In trauma related deaths the Coroners tend to focus on the nature of the accident and how it occurred rather than on the subsequent medical treatment of the victim. Research into health care provision in trauma cases has shown substantial problems ('adverse events') in medical treatment provided to victims.

Road trauma death model

Looking in more detail into deaths associated with road trauma has proved to be a useful model of the significance of adverse events in hospital treatment. A study examining 137 individuals dying following treatment for injuries sustained in a road traffic accident took place during 1992 and 1993.[7] All of the patients had survived for a period of time and had received some medical treatment varying from ambulance treatment to long-term hospital care. For the 137 patients receiving treatment, 1012 problems were identified in various areas of their medical care. Of these, 65% were management errors and 21% were system inadequacies. Medical technique areas, diagnostic delays and diagnostic errors together accounted for only 10% of the problems.

The treatment of these patients was evaluated by a broad ranging team of medical practitioners who found 62% of the deaths were assessed as non-preventable, 33% as potentially preventable and 5% as preventable. All of these deaths were reported to the Coroner simply because they were associated with a motor vehicle fatality. However, the adverse events noted in the medical treatment of these motor vehicle trauma cases were not unique to motor vehicle trauma and, in fact, arose out of ordinary everyday hospital practice. It follows that many other patients probably suffer the same sorts of adverse events. What we do not know is how many other patients in hospital who may have died in circumstances that include adverse treatment events get reported to the Coroner.

Adverse events in Australian hospitals

These problems are not restricted to trauma related deaths. The *Quality in Australian Health Care Study* was commissioned by the Commonwealth Department of Human Services and Health in 1994 and sought to determine the proportion of hospital admissions in Australian hospitals associated with an 'adverse event'.[8] This study reviewed the medical records of over 14,000 admissions to 28 hospitals in New South Wales and South Australia. The study showed that 16.6% of hospital admissions were associated with an 'adverse event'. Of these adverse events, 51% were considered preventable and 13.7% resulted in permanent disability and 4.9% of patients suffering an 'adverse event' died. This study built substantially on the 1984 Harvard Medical Practice Study.[9] The Harvard study examined records of 3195 patients and identified 1133 adverse events where 28% of the adverse events resulted from negligent care.

Extrapolating from these studies is extremely difficult and has led to statements in the media suggesting that in Australia up to 14,000 patients a year died as a result of hospital treatment errors. If one divides up such a figure amongst the different States in Australia, one might expect approximately 3000 of those deaths to have occurred in Victoria. In practice however, the Victorian State Coroner's Office only investigates approximately 300 hospital deaths each year. This raises the somewhat difficult question of why the other 2700 deaths associated with an 'adverse event' were not reported to the Coroner.

Such a broad view of adverse events in hospital is difficult to equate with the treatment of individuals. Adverse events may be quite serious and amount to significant departures from ideal medical practice or they may be relatively trivial such that, whilst they may cause some increased pain and suffering, they would not result in death or significant disability.

The role of doctors and hospitals

Solving this puzzle is problematic. Much depends on the definition of an 'adverse event' and the perception in the minds of the individuals mandated to report the deaths (principally the medical staff involved). There is a certain irony in the fact that the individuals most under coronial scrutiny in a hospital death, the doctors, are the individuals who are mandated to report these deaths. They, therefore, act as gatekeepers controlling Coroners' access to information about deaths occurring in a medical setting. Is the failure to report deaths to Coroners a result of ignorance about the definition of 'reportable deaths' or do doctors not report deaths associated with an adverse treatment event because they have something to hide? There is little direct evidence of doctors deliberately concealing these deaths from the Coroner. Indeed review of hospital procedures reveals that there are a multitude of medical, paramedical and nursing staff involved in the care of patients, all of whom would have to be part of an extremely complex conspiracy of silence about deaths from adverse events.

Coronial investigation of medical treatment deaths

What then do Coroners do when they are referred deaths that have occurred in a setting of medical treatment? How well do Coroners perform in investigating those deaths? Do Coroners and indeed can Coroners investigate medical deaths to the same level that a detailed internal medical audit would do? At first glance it might be expected that an external review by an independent agent, such as the Coroner, would result in a more thorough unbiased evaluation of such deaths. However, this may not be necessarily true.

Confidential inquiries into morbidity and mortality in hospitals have been around for a long time. Such inquiries usually involve medical staff at a hospital discussing adverse events and patient deaths in a closed session which often receives legal privilege.[10] The documents and material arising out of such internal hospital inquiries cannot be used in any judicial proceedings. The rationale for this appears to be that doctors will feel freer to talk about what happened and discuss what they can do to prevent these events occurring again if they do not have to worry about civil litigation occurring as a result of what they have said. This approach appears to be successful when reviewed from the injury prevention point of view. However, considerable concern has been raised in the community about such private internal inquiries representing a 'closed shop' of doctors. The results of internal hospital inquiries into death and medical treatment problems are usually circulated internally within the hospital and health care community and, hopefully, are used to prevent similar adverse events occurring in the future. Where one of these cases is referred to the Coroner it is unclear whether the Coroner, in fact, investigates or addresses the issues that the internal hospital inquiry did. Indeed, if the hospital inquiry has been carried out under legal privilege, the Coroner would

simply not have access to the hospital internal inquiry documents.

The quality of coronial investigation

The legal investigative process is intrinsically different from the medical and scientific investigative process. Yet a Coroner's finding is dependent on the work of a variety of investigators including lawyers, police officers and doctors. As a result it is difficult to evaluate the quality of a coronial investigation from either a purely scientific or legal viewpoint. Some time ago I undertook a study examining coronial findings where an independent medical investigation team had identified problems with medical treatment that they believed had directly contributed to a patient dying from what were medically considered to be survivable injuries. This study identified some 14 deaths where adverse events had occurred which were considered by a group of medical professionals to be preventable deaths.[11]

Examining the coronial findings in these cases revealed that in six cases, the Coroner's finding did not mention the fact that medical treatment had been given. In four of the 14 findings medical treatment was described as being provided but no comment was made as to its efficacy or its quality. In two of the 14 findings a detailed description of treatment was given in the coronial finding, but no finding of contribution of the medical treatment to death was made. In the final two cases the medical treatment was investigated in considerable detail by the Coroner and a number of issues identified, although the Coroner did not make any final legal determination regarding contribution.

This is just a limited series but it indicates that even where the coronial service investigates deaths where medical treatment has been provided, there is a high likelihood that the Coroner's investigation will not uncover issues that a medical panel would identify as significant in contributing to the death. Why is this? Apart from brief initial medical statements of doctors as potential witnesses, Coroners rely on hospital pathologists, forensic pathologists, government medical officers and police to provide them with the basic information about a death in hospital. Pathologists may not have been engaged in clinical medical practice for many years and indeed the nature of sub-specialisation in medicine

today is such that a general surgeon may not know what is appropriate in neurosurgery and vice versa. It, therefore, seems unlikely that any one doctor from any particular specialty could be expected to identify all potential procedural errors in complex treatment regimes. If an individual doctor would not be capable of correctly identifying all the issues of concern in medical treatment, how much less capable would a police officer or a non-medical Coroner be?

The team as investigator

Studies into hospital care audit demonstrate the value of the team approach to the evaluation of potential medical adverse events. Yet team investigations by groups of doctors are fraught with difficulty when it comes to legal investigatory processes. The doctors in these investigation panels are working in a setting of no liability and in circumstances where their comments cannot be used in further judicial proceedings. If this privilege were removed, can we be sure that these doctors would make the same adverse comments? This is not to suggest that the doctors would lie if they realised that their deliberations would be the subject of external judicial review. It is simply that they could be more inclined to qualify their opinions in such a way as to make their comments less useful to the judicial process.

Even if a medical panel's deliberations were used in a legal evaluation of a medical treatment related death, it poses considerable practical procedural difficulties for a Coroner's Court. Whilst in some cases it may be possible for the panel to sit as advisers to the Coroner, this would limit the ability of parties to cross-examine the members of the panel. If the members of the panel were called as ordinary witnesses in the coronial inquiry, then certainly they could be cross-examined by interested parties and their evidence dissected and weighed. This, however, raises the difficulty that each member of the panel on their own is incapable of identifying all of the significant issues or adverse events in the medical treatment. Even if the issues were all pointed out to them, they may not be able to correctly rank the issues in terms of their significance as they would lack the significant knowledge of the medical specialty disciplines other than their own. The great advantage of a medical panel investigating adverse events is that each member of the panel has their own unique skills and knowledge and it is by throwing around their observations and deductions in the course of the panel discussion that a consensus arises. This integrative process cannot occur when individual members of the medical panel are cross-examined in isolation.

Conclusion

Are deaths in hospital covered up? There are no easy answers to this. Certainly it appears that not all reportable deaths are being reported to a Coroner and not all adverse events associated with a death are recognised by a Coroner's investigation process. This does not mean to say that the health care system is unaware of these problems and 'sweeps them under the carpet'. Indeed, hospital outcome health care audits form a major part of health care policies today. The difficulties of adequately funding health care provision in the community make the search for efficiency and cost effective health care processes a high priority. Any efficient health care system must concentrate on health care outcomes, and adverse events in medical care, of themselves, lead to a substantial increase in health care costs.

Today, the focus of many Coroners is on prevention of death and injury. Yet it seems doubtful that Coroners can make a substantial contribution to the prevention of adverse events occurring in hospital or during medical treatment. Individual instances of problems in health care provision may well be recognised by Coroners. But these will often occur as a result of strong pressure by family or friends who have concerns about particular aspects of medical treatment, and only rarely is such pressure on the Coroner to investigate aspects of a medical treatment related death brought by the medical profession itself.

References

1. Section 26 of the Victorian *Coroners Act 1985* provides Coroners with powers of entry, inspection and possession. As a result, if a Coroner has jurisdiction to investigate a death they may, with any help thought fit—
   (a) enter and inspect any place with anything in it; and
   (b) take a copy of any documents relevant to the investigation; and
   (c) take possession of any thing which the Coroner reasonably believes is relevant to the investigation and keep it until the investigation is finished.
2. *Coroners Act 1985* (Vic.), Section 3.
3. *Coroners Act 1985* (Vic.), Section 3.
4. The expectation being that they die of the illness, for which the treatment was appropriate but ineffective, rather than from a problem associated with the treatment alone.
5. Justice McNair, *Bolum v Friern Hospital Management Committee* 1957, 2 All ER 118 at 121. (The doctor) is not guilty of negligence if he has acted in accordance with the practice accepted as proper by a responsible body of medical men skilled in that particular art ... [Putting] it the other way around, a man is not negligent if he is acting in accordance with such a practice, merely because there is a body of opinion which would take a contrary view.
6. Must the death be unexpected by the coroner, unexpected by the deceased, unexpected by the treating doctor or unexpected by the family of the deceased? Is a death from mesothelioma, caused by industrial exposure to asbestos 40 years before, a natural or unnatural death?
7. McDermott, F.T., 'Evaluation of the medical management and preventability of death in 137 road traffic fatalities in Victoria, Australia: An overview', *The Journal of Trauma: Injury, Infection and Critical Care.* Volume 40, No.4. pp. 520–535.
8. McL Wilson, R. et al., The Quality in Australian Healthcare Study, *The Medical Journal of Australia*, Volume 163, 6 November 1995, pp. 458–471.
9. Leape, L.L. et al., 'The nature of adverse events in hospitalised patients: Results of the Harvard Medical Practice Study II', *The New England Journal of Medicine*, 1991, 324, pp. 377–384.
10. Section 139 of the *Health Services Act 1988* prohibits a member, officer or employee of this committee from recording, communicating, making use of or giving or producing evidence regarding information gained from the proceedings of the committee which may expressly or by implication identify any particular individual(s), except to the extent necessary for the performance of the functions of this committee.
11. That is, if the patient had received ideal management they would have had a very significant chance of survival (greater than 75% chance of survival.).