# Detecting homicide in hospital

ABSTRACT – The Beverly Allitt case and the subsequent inquiry have focused attention on the detection of covert hospital homicide. Effective investigation can only take place if there is prompt recognition of circumstances that justify suspicion about a death and immediate action is taken to retrieve potentially vital evidence. The hospital itself must take responsibility for the detection of covert homicide. Confidence that such deaths will be uncovered by 'routine' investigation through the existing coroner system, including postmortem examination, is misplaced.

The report of the inquiry relating to deaths and injuries on the children's ward at Grantham and Kesteven General Hospital ('Clothier report'; 'Allitt inquiry') emphasises that 'a determined and secret criminal may defeat the best regulated organisation in the pursuit of his or her purpose'<sup>1</sup>. This raises the question of how efficient is the existing system of medico-legal investigation of death in the detection of concealed homicide in British hospitals.

Overt homicide is not unknown in hospitals<sup>2</sup> but we are concerned with the covert acts of the 'serial killer' or 'mercy killer' who might be a permanent or temporary member of staff, a contractor, a visitor or other member of the public. Such cases appear rare but the true incidence cannot be determined without detailed investigations which we do not believe occur at the present time within the existing coroner system. It is, in fact, only when suspicion is raised, either by a witness of an act or by perception of an unusual pattern of deaths - whether unusual in frequency or mode that an investigation will be triggered. Whilst we do not wish to imply that other hospitals might have fared better than Grantham and Kesteven if faced with an identical situation, it might be said that the pattern of events described in the Allitt inquiry represents the least difficult scenario in that, at least in retrospect, the pattern of deaths and collapses is clearly abnormal. How much more difficult is the perception of pattern, even in retrospect, where deaths are sporadic and occur in different locations (because an assailant may not be confined to a single ward or hospital or because an assault may result in transfer to another ward or hospital where death occurs) or within a population (such as the aged, the acutely ill or the terminally ill) where death is not unexpected?

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### The role of the coroner

Responsibility for the investigation of 'a violent or unnatural death' or 'a sudden death of which the cause is unknown'3 lies with the coroner but this investigation can only occur when the coroner is made aware of such a death. It appears that the degree of knowledge of the coroner system among medical practitioners is suboptimal<sup>4</sup> but, even were this not so, there is no statutory duty on a medical practitioner to report any death to the coroner and no requirement for that medical practitioner to 'investigate' the death. There is, in fact, no statutory duty for the medical practitioner who will issue the medical certificate of cause of death (death certificate) even to confirm the fact of death or to see the body after death. Moreover, since the introduction of the nurse practitioner it may be that a medical practitioner, if called upon to determine the fact of death, will not do so until several hours after it is believed to have occurred. Given that the usual line of communication is with the coroner's officer, whose hours are standard office hours, the potential for delay in the initiation of any investigation and for disposal of what might be vital evidence (such as syringe drivers, intravenous fluid giving sets) is obvious. In practice, in the absence of overt suspicion, such 'investigation' is limited, within the hospital, to the doctor reporting the death and the coroner's officer's decision as to whether it falls within the coroner's jurisdiction and whether, therefore, a postmortem examination will be performed and/or an inquest opened. It is perhaps ironic, first, that it is the most junior of the medical staff who, as the first doctor 'at the scene', is liable to make the crucial assessment of whether the death is in any way suspicious (thus requiring immediate investigation) and second, that the coroner's officer, to whom any communication about a potentially complex 'medical death' is made, is a layman.

When cases in which there is no overt suspicion are referred to the coroner, is it to be expected that a postmortem examination ordered by him will detect such covert assault? Deaths may be said to fall essentially into one of three groups:

- those where there is little or no difficulty in regarding the findings at post-mortem examination as incompatible with life
- those where the findings at post-mortem examination may explain the death but are not incompatible with life
- those where there is no convincing explanation.

Into which group a death will fall depends to some extent on the completeness of the post-mortem

examination, the interpretation that an individual pathologist is prepared to put on the post-mortem findings and the further investigations he or she may initiate. Few hospital deaths (approximately 5% in Cardiff) show findings at post-mortem examination which are incontrovertibly incompatible with life; these few cases do not present a problem. In a similar number there are no findings at gross post-mortem examination sufficient to account for death, necessitating further investigations including assessment of the circumstances of the death as well as toxicological and other special investigations: a proportion of these deaths remains unexplained after extensive investigation. That most deaths belong to the second group, where findings at post-mortem examination may explain the death but are not incompatible with life, is not surprising, given that many patients are being treated for conditions which are potentially fatal (ischaemic heart disease with acute complications, say) but whose appearances at post-mortem examination cannot be said to be such that they necessarily represent more than an incidental finding.

The significance of such post-mortem findings is increased when they are viewed in the light of a detailed clinical history and knowledge of the circumstances of death. Indeed, an absence of findings need be no bar to the formulation of a cause of death where the clinical history suggests the likelihood that postmortem examination will be 'negative', (as, for example, in sudden death in idiopathic epilepsy). The extent of inquiry that is necessary prior to a formulation of the cause of death, and the formulation itself, is a matter for the coroner, although that inquiry, obviously, will be directed to various doctors involved with the death.

In actual practice, how far should a pathologist search for the cause of death? Is it sufficient to be able to explain the death or should he or she always think the unthinkable and perform such investigations that allow the exclusion of criminality before relying on the former, subjective, assessment? In reality, such a possibility as insulin poisoning cannot be excluded without complex toxicological analysis; given biochemical changes which occur in the post-mortem period, poisoning with potassium may never be excluded (unless there is access to a blood sample taken immediately following collapse and before prolonged resuscitation); other drugs may not be detected unless specifically sought; deaths due to smothering are unlikely to be detected by post-mortem examination, even when that examination includes dissection of the neck and face.

## The role of the hospital

Although it is the coroner who has the legal duty to investigate the death, in practical terms it is those concerned in the immediate circumstances of the death – or the immediate circumstances of the collapse which may lead to death at a later time – who must register suspicion, and act promptly upon such suspicion, if there is to be detailed and directed investigation: the legal status of such action prior to informing the coroner of the death can be questioned but any delay which might jeopardise the efficacy of an investigation must be avoided. Such an approach has its hazards: we support wholeheartedly the dictum of Stevens J that 'It would be intolerable if the coroner had the power to intrude without adequate cause upon the privacy of a family in distress and to interfere with their arrangements for a funeral'5. It cannot be acceptable or practical to regard every death in hospital as covert homicide. However, it must behave a hospital to give thought to, and implement, policies which will allow a balance to be struck between adequate investigation of death and unwarranted intrusion upon families. Such policies could include:

- where overt suspicion attends a collapse, retention of all infusion sets, cannulas etc
- detailed recording of incidents of unexpected collapse, with or without a fatal outcome, to include those present at and around the time of collapse
- retention of a blood sample taken at the nearest time following such a collapse to store for toxicological analysis in the light of any later suspicion
- analysis of place of death and persons in attendance, allowing retrospective recognition of any 'patterns'
- detailed monitoring of potentially harmful drugs on wards.

It may be that existing procedures regarding usage of 'controlled' drugs are as secure a system as may reasonably be instituted, even if they are not sufficient to exclude completely the potential for homicidal administration; it has been argued that it is impracticable to monitor ward usage of all drugs<sup>6</sup>, any of which might be regarded as potentially harmful. We would submit that insulin, potassium chloride and all potentially arrhythmogenic drugs should be monitored as closely as 'controlled' drugs.

## Conclusions

The epilogue to the Allitt inquiry refers to 'the slightest possibility of prevention' and 'tightening of standards which . . . may reduce the opportunities open to another Beverley Allitt'<sup>7</sup>. It may be that there is a perception, both within the medical profession and the public, that the events that occurred at Grantham and Kesteven hospital would have been detected earlier were it not for lapses within an essentially sound system. We would submit that the existing system is not sufficiently strong to detect or prevent further covert homicidal assaults in hospital. Whilst any police investigation has further difficulties<sup>8</sup>, the initial investigation is the responsibility of the coroner;

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if that is limited to enquiry of doctors who have themselves reported the death (and the coroner may be hampered further by his having no right to view medical notes)<sup>9</sup>, then, to a larger extent, both detection and initial investigation lie with the doctors. If the coroner system may have difficulty in detection, it should be obvious that its role in prevention is even more limited: the facilitation of such detection and consequent prevention of further cases lies with the hospital. Do the policies outlined above represent, if not the best, then the least that may be done?

#### References

- 1 Clothier C (Chairman). The Allitt Inquiry: Report of the independent inquiry relating to deaths and injuries on the children's ward at Grantham and Kesteven General Hospital during the period February to April 1991. Chapter 1, para 12. London: HMSO, 1994.
- 2 Times p 1, column 5, May 26, 1992.

- 3 Coroners' Act 1988, s8.
- 4 Start RD, Delargy-Aziz Y, Dorries CP, Silcocks PB, Cotton DW. Clinicians and the coronial system: ability of clinicians to recognise reportable deaths. *Br Med J* 1993;**306**;1038–41.
- 5 Reg v Price (1884); 12 QBD 247.
- 6 Clothier C (Chairman). The Allitt Inquiry: Report of the independent inquiry relating to deaths and injuries on the children's ward at Grantham and Kesteven General Hospital during the period February to April 1991. Chapter 5, section 12, para 11. London: HMSO, 1994.
- 7 Clothier C (Chairman). The Allitt Inquiry: Report of the independent inquiry relating to deaths and injuries on the children's ward at Grantham and Kesteven General Hospital during the period February to April 1991. Epilogue. London: HMSO, 1994:131.
- 8 Forrest ARW. Nurses who systematically harm their patients. *Med Law Int* 1995;1:411–21.
- 9 Croom-Johnson LJ in Reg v Southwark coroner ex parte Hicks, 1987; 1WLR 1624–39 at 1629.

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