IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

Court Reference: COR 2014 003913

FINDING INTO DEATH WITHOUT INQUEST

Form 38 Rule 60(2)
Section 67 of the ***Coroners Act 2008***

I, ROSEMARY CARLIN, Coroner having investigated the death of MARY VERONICA LEVIN without holding an inquest, **find**:
that the identity of the deceased was Mary Veronica Levin
born on 27 May 1937
and the death occurred on 2 August 2014
at the Alfred Hospital, Victoria, 3037

from:

1(a) SUBDURAL HAEMATOMA SECONDARY TO BLUNT HEAD TRAUMA (HEAD-STRIKE)

Pursuant to section 67(1) of the *Coroners Act 2008* there is a public interest to be served in making findings with respect to the following circumstances:

Introduction

1. Mary Levin was 77 years old when she died. She suffered from hypertension and epilepsy and was taking Warfarin[1], for atrial fibrillation, however she was largely independent and lived by herself in Jasper Road Bentleigh. She is survived by her children and grandchildren.

2. On 31 July 2014 Mrs Levin struck the back of her head on a wall at her home. She telephoned her son, Mark, who took her to Sandringham Hospital, arriving at about 8.30pm. She was assessed, a laceration on her scalp was sutured and she was discharged at about 10.00pm. Although she was on Warfarin, the hospital did not perform a CT scan, measure

[1] Warfarin is an anticoagulant medication.

her blood clotting factor (INR) or give her instructions about taking Warfarin. She died about 26 hours later from a massive subdural haematoma.

Coronial investigation

3. Mrs Levin's death was reported to the Coroner as it fell within the definition of a reportable death within the meaning of the *Coroners Act 2008* (**the Act**).

4. The role of a coroner is to independently investigate reportable deaths to establish, if possible, identity, medical cause of death and with some exceptions, surrounding circumstances. These are circumstances which are sufficiently proximate and causally related to the death. The law is clear that coroners establish facts; they do not cast blame or determine criminal or civil liability[2].

5. Under the Act, coroners have another important function and that is, where possible, to contribute to the reduction in number of preventable deaths and the promotion of public health and safety by way of making comment or recommendations about any matter connected to the death under investigation.

6. During the course of my investigation into Mrs Levin's death I received correspondence from Mark Levin and obtained statements from the consultant, registrar and medical student who treated Mrs Levin at Sandringham Hospital. I also obtained medical records from Sandringham and Alfred Hospitals and Mrs Levin's general practitioner. I conducted a mention hearing and received further medical statements, hospital guidelines and written submissions from legal representatives for Sandringham Hospital and the consultant. I have had regard to all this material in making my findings in this matter.[3]

Identity

7. Mark Levin formally identified the body of his mother at the Alfred Hospital on 2 August 2014. Identity was not in issue and required no further investigation.

Medical Cause of Death

---

[2] In the coronial jurisdiction facts must be established on the balance of probabilities subject to the principles enunciated in *Briginshaw* v *Briginshaw* (1938) 60 CLR 336. The effect of this and similar authorities is that coroners should not make adverse findings against, or comments about, individuals unless the evidence provides a comfortable level of satisfaction as to those matters taking into account the consequences of such findings or comments.

[3] I also consulted independent emergency physicians at the Coroners Prevention Unit (CPU), however as I did not receive any formal statements my finding is based on the material referred to above.

8. Forensic Pathologist Dr Matthew Lynch inspected Mrs Levin's body at the Victorian Institute of Forensic Pathology on 4 August 2014 and noted the sutured laceration on the back of her head (right occipital region). He also reviewed a postmortem CT scan which revealed a left subdural haematoma with midline shift as well as calcific coronary artery disease and a left renal cyst. He formulated the cause of death as *1(a) Subdural Haematoma secondary to blunt head trauma (fall)*. I accept his opinion save that there is uncertainty on the evidence as to whether Mrs Levin had a fall or struck her head in some other way.

Circumstances

9. Sandringham Hospital is a part of the Alfred Health network providing health services to people in the inner southeast suburbs of Melbourne. The focus of my investigation was on the treatment Mrs Levin received at Sandringham Hospital and whether there were any missed prevention opportunities.

Hospital Clinical Guidelines

10. At the time Mrs Levin presented to Sandringham Hospital, Alfred Health had a relevant guideline (**the Guideline**) entitled:

MINOR HEAD INJURY MANAGEMENT IN PATIENTS ON ANTICOAGULANT OR ANTIPLATELET THERAPY.

The Guideline was available on the Alfred Health Intranet and is still current. Point two provides that any patient taking anticoagulant or antiplatelet agents who presents, with or without loss of consciousness, following a head strike should have a head CT and be admitted for observation. Point 2 continues:

> *'If the clotting profile is normal, CT brain is normal, the patient is not in [post traumatic amnesia] and there are no other clinical features of head injury ... the patient may be considered for discharge ... after 4 hours observation ... with a carer and Head Injury Instructions.'*

11. Points three and four deal with situations where the CT scan shows evidence of intracranial haemorrhage (point three) or where there is no such evidence but there are other features of head injury present or no competent carer (point four). In the former, Warfarin is to be reversed urgently and other treatment given. In the latter, Warfarin is to be temporarily ceased if medically feasible. In both cases the patient is to be monitored and a CT scan repeated.

12. Point five provides that anticoagulation therapy should only continue if the brain CT is completely normal and the *'medical indications show that the benefits outweigh the risks of a possible intracranial haemorrhage'*. It also states that the patient will be admitted and remain on hourly neurological observations.

Mrs Levin's presentation

13. Mark Levin drove his mother to Sandringham Emergency Department (**ED**) after she told him she had fallen in her home and cut the back of her head which was bleeding. On the journey she was talking and was '*still ok to walk*'. He reported that he informed the hospital that his mother was on Warfarin and further she '*always made people aware that she was taking it*'[4]. He did not accompany his mother into the examination room.

14. A fifth year medical student and a medical registrar examined Mrs Levin and took a history from her. She was speaking normally and reported to them that she had moved her head backwards and cut it against a sharp segment of wall (a brick edged corner according to the Registrar). She said she was on Warfarin for atrial fibrillation. She denied falling, loss of consciousness, amnesia, headache, nausea or vomiting. They described her wound as 4 (or 6) cm long, moderately deep, extending into subcutaneous fat, but not actively bleeding.

15. The Registrar, Dr Emma Patterson, discussed the need for a CT scan with the Consultant Emergency Physician, Dr Adam Bystrzycki. She reported that she described the wound, the mechanism of injury (*'predominantly by a sharp slicing action rather than blunt trauma'*) and advised that Mrs Levin was on Warfarin. According to Dr Patterson, '*[i]t was decided that a CT would not be required*'[5].

16. Dr Bystrzycki also attended upon Mrs Levin personally. The medical student, Diana Abu-ssaydeh, stated that Dr Bystrzycki took a history from Mrs Levin in her and Dr Patterson's presence. According to Dr Bystrzycki, although it was his routine to ask an adult patient if she was on Warfarin, he could not recall Mrs Levin stating that she was. Nor could he recall the Registrar informing him that she was. He further claimed that he could find no documentation in nursing or ambulance notes to suggest '*otherwise*' and there was effective coagulation of the wound.

---

[4] Email from Mark Levin to the Coroners Court dated 17 November 2014.

[5] Statement of Dr Emma Patterson dated 10 October 2014.

17. Dr Bystrzycki reported that Mrs Levin's description of the incident was that she had turned around in the kitchen and suffered a glancing blow from an open kitchen cupboard door or edge. He stated that '*as a result of my belief that Mrs Levin was not on blood thinners*' and '*[w]ith such a seemingly minor mechanism of injury... I felt that the risk of intracranial injury was so low as to obviate the requirement for imaging*'. He therefore '*advised Dr Patterson to proceed with wound closure without a CT of Mrs Levin's brain*'[6].

18. Ms Abu-ssaydeh reported that she did consider the possibility of intracranial injury but '*under the guidance of Dr Patterson and Dr Bystrzycki it was felt to be unlikely due to the low impact nature of the injury as reported by Mrs Levin. In addition, the patient did not display or report any signs or symptoms consistent with an intracranial injury.*'[7]

19. Following Dr Bystrzycki's assessment, Ms Abu-ssaydeh stitched Mrs Levin's wound and entered the following notes into the hospital's computer database which were checked by Dr Patterson.

> *'77 yo woman presented with posterior scalp laceration after hitting back of head on sharp segment of wall 2/24 ago. Pt denies LOC, nausea/vomiting, headache, neck pain.*
>
> *Pt is on Warfarin for AF.*
>
> *Ex*
>
> *Posterior scalp laceration approx 6cm in length*
>
> *Clean Wound*
>
> *GCS 15 - intracranial bleed unlikely*
>
> *Mx*
>
> *Wound washed with saline*
>
> *4 x 3.0 monofilament simple interrupted sutures inserted under local anaesthetic*
>
> *Wound not dressed*
>
> *Tetanus shot administered*
>
> *Pt advised to follow up w GP for removal of stitched in 5-7/7*
>
> *Pt advised to present to GP earlier if increased swelling or pain in wound, or fever.'*

Mrs Levin was then discharged with a copy of her notes to give to her general practitioner on removal of her sutures. The times on the hospital notes suggest her discharge occurred around 10.00pm.

---

[6] Statement of Adam Bystrzycki dated 23 October 2014.

[7] Statement of Diana Abu-ssaydeh dated 24 October 2014.

Subsequent events

20. Mark Levin thought it would be a good idea if his mother stayed that night with him. At around midnight she retired after saying goodnight to her grandchildren and taking her Warfarin. The next day Mark decided to let his mother sleep and did not check on her until around noon. At that time she was unresponsive and he called emergency services. Mrs Levin was conveyed by ambulance to the Alfred Hospital where scans revealed she had an unsurvivable subdural haematoma. She died just after midnight.

Sandringham Hospital Response

21. Mrs Levin's treatment was the subject of a hospital review. I first requested the outcome of any such review by letter dated 7 November 2014[8]. Following several requests for an extension of time, at least partly on the basis that the hospital was conducting '*an ongoing and detailed case review*' anticipated to be '*finalised by the end of April 2015*'[9], I was advised on 18 June 2015 that the Alfred & Sandringham Clinical Outcome Review Committee had reviewed the case in February 2015[10]. In response to the direct question of '*What issues were identified by the case review process?*', I was advised simply:

> '• *Compliance with Head Injury Guideline;*
>
> • *Documentation of medical notes.*'

I did not find this answer particularly illuminating.

22. In the same communication I was informed that the review process had resulted in three recommendations for improvement, to wit, a review of the (Head Injury) Guideline, better clinician access to the Guideline and further education for registrars at orientation about the need to counter sign medical records completed by medical students to ensure they are aware of the contents and the records are accurate. In fact, the first recommendation was not a recommendation at all as the review apparently confirmed that the '*documented protocols reflect professionally recognised best practice for the treatment of patients presenting following any head trauma.*' The second and third recommendations, whilst pleasing, did not seem pertinent to the events which befell Mrs Levin.

---

[8] Letter to Lander & Rogers dated 7 November 2014.

[9] Letter from Lander & Rogers dated 20 March 2015. A similar indication was given on 12 March 2015.

[10] Letter from Lander & Rogers dated 18 June 2015 enclosing statement of Dr Fatima Rahman Physician and Deputy Director Emergency & Trauma Centre, Alfred Health, dated 4 June 2015.

23. After further communication, I was informed by letter dated 29 July 2015 that Alfred Health conceded that it did not follow the Guideline, but that its review had not sought to resolve the inconsistency between the accounts of Mrs Levin's treating clinicians, rather the focus of the review was on continuous systematic improvement[11].

24. On 13 November 2015, I advised Alfred Health that I was proposing to hold a mention hearing in order to determine the need for an inquest. Two statements from Alfred Health medical practitioners followed.

25. The first was from Dr Nicholas Maartens[12], Consultant Neurosurgeon involved in the care of Mrs Levin when she was admitted to the Alfred Hospital on 1 August 2014. He indicated that guidelines are just that; they are not mandatory. Based on Mrs Levin's presentation to Sandringham Hospital he stated '*I consider that it was reasonable not to request a CT scan nor [sic] to not admit her. It must also be remembered that CT scans are not risk free and carry risks associated with radiation exposure.*' Dr Maartens then expressed his opinion on whether Mrs Levin's death would have been prevented by the ordering of a CT scan.

26. Dr Lee Hamley, Executive Director of Medical Services and Chief Medical Officer for Alfred Health elaborated on the review process and stated that the review had identified that there was '*a communication breakdown*' between medical practitioners[13].

27. The mention hearing was held on 2 February 2016 during which, inter alia, I raised concerns as to whether its acceptance that there was '*a communication breakdown*' meant the hospital review did not adequately explore the issue of prevention. In particular, if Dr Bystrzycki was aware that Mrs Levin was on Warfarin but had decided nonetheless not to order a CT scan (a decision that would appear supported by Dr Maartens), the hospital review might have made different recommendations. I also sought clarification as to whether, given Dr Maartens' statement, the hospital was contending that not ordering a CT scan was appropriate, despite the Guideline. Finally, I called for submissions on several proposed findings, including that if the Guideline had been followed there was a reasonable possibility that Mrs Levin's death would have been prevented[14].

---

[11] Letter from Lander & Rogers dated 29 July 2015.

[12] Dated 27 January 2016.

[13] Statement dated 28 January 2016.

[14] Transcript page 9. I also said that different treatment 'may' have prevented her death.

28. After the mention hearing I received separate written submissions from Alfred Health and Dr Bystrzycki as well as a further statement from Dr Bystrzycki.

29. Whilst contending that the evidence supported a finding not only that Dr Bystrzycki did not know Mrs Levin was on Warfarin, but that he had a positive belief that she was not on Warfarin, Alfred Health conceded that in the circumstances he ought to have known that she was. Alfred Health also conceded that the Guideline should have been followed with all its permutations and combinations of treatment. First and foremost this meant that a CT scan should have been performed[15].

30. Alfred Health challenged my proposed finding that there was a 'reasonable possibility' that Mrs Levin's death would have been prevented and contended that based on the statement of Dr Maartens' it was not possible to say whether a CT scan would have detected a subdural haemorrhage, nor whether different treatment would have produced a different outcome. Whilst the meaning of reasonable possibility could be debated[16], I accept that the outcome for Mrs Levin had the Guideline been followed will never be known. However, non-adherence to the Guideline deprived her of her only chance of survival.

Dr Bystrzycki's response

31. Dr Bystrzycki provided a supplementary statement dated 8 March 2016, in which he stated *'I do not recall being aware that Mrs Levin was on Warfarin'*, but as the '*Consultant who became involved in her presentation I should have been aware that she was on Warfarin*' and further that '*she should not have been discharged without undergoing a CT scan on her head*'. Otherwise, submissions filed on Dr Bystrzycki's behalf relied on the statement of Dr Maartens as to the consequences of the failure to perform a CT scan.

Findings

32. I find that:

    a. the identity of the deceased was Mary Veronica Levin, born on 27 May 1937.

    b. Mrs Levin died on 2 August 2014 from a subdural haematoma secondary to blunt head trauma (head-strike) at the Alfred Hospital, Victoria.

---

[15] I note that Alfred Health did not use those exact words, rather saying *'Alfred Health concedes that a CT scan was not ordered and had the guideline been followed, a CT scan would have been done.'*

[16] Submissions for Alfred Health appear to have equated the term 'reasonable possibility' with 'probable' and the term *'may'* with *'would'*.

c. Sandringham Hospital should have followed its own guideline as to the treatment of patients on Warfarin who have suffered a head-strike but failed to do so.

d. I cannot be satisfied that this failure contributed to Mrs Levin's death.

Comments

Pursuant to section 67(3) of the *Coroners Act 2008*, I make the following comment(s) connected with the death:

33. It is difficult to reconcile Dr Bystrzycki's original claim that he believed Mrs Levin was not on Warfarin with the other evidence in the case, including his own statements that he could not recall conversations on the topic. Contrary to the arguments of Alfred Health, who attributed the inconsistencies in witness accounts to a communication breakdown, I can no more make a finding that Dr Bystrzycki believed Mrs Levin was not on Warfarin without hearing evidence, than I can make a finding that he did know she was on Warfarin without hearing evidence.

34. Whilst the question of Dr Bystrzycki's knowledge remains unresolved, the fact that it could never be established that failure to follow the Guideline contributed to Mrs Levin's death means there is little merit in pursuing it. Further, the concessions ultimately made by Alfred Health and Dr Bystrzycki mean that it would be the sole question for determination at inquest. That being the case, I decided that holding an inquest was not necessary, nor forensically justifiable.

35. In its submissions Alfred Health anticipated a possible recommendation that the Guideline should be followed in all cases. This is not something I foreshadowed and I agree that there is insufficient evidence to support such a recommendation. However this case illustrates that it can never be assumed that a patient on Warfarin who presents with a relatively minor head injury is not at risk of an intracranial bleed just because the mechanism of injury was minor, there are no obvious signs of intracranial injury and there is no active bleeding at the site. Given the Guideline is not mandatory, in my view there is room for further training of medical staff to illustrate this point.

36. During my investigation Mark Levin questioned the ability of junior doctors or medical students to challenge the opinions of more senior doctors. This is a legitimate and understandable concern, however on the material before me there is no indication that such a situation arose in this case and no basis for making a specific comment or recommendation.

I can only hope that Alfred Health, and indeed all hospitals, promote an environment in which this can occur.

37. I commend the fact Alfred Health conducted a review into the circumstances of Mrs Levin's death and accept that the focus was, appropriately, on continuous systematic improvement. However, I consider the most effective way to identify areas of improvement is by establishing the facts of the incident. In some cases this will entail resolving differing accounts rather than by adopting a path of least resistance.

I convey my sincere condolences to Mrs Levin's family and friends.

Pursuant to section 73(1A) of the *Coroners Act 2008*, I direct this finding be published on the internet.

I direct that a copy of the finding is provided to Births Deaths and Marriages so that they may alter the medical cause of death.

I direct that a copy of this finding be provided to the following:

The family of Mary Levin;
Alfred Health;
Dr Bystrzycki;
Interested parties;
Births, Deaths and Marriages; and
Investigating Member, Victoria Police.

Signature:

ROSEMARY CARLIN
CORONER
Date: 30 June 2016