IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

Court Reference: COR 2011 2328

# FINDING INTO DEATH WITH INQUEST

*Form 37 Rule 60(1)*
*Section 67 of the **Coroners Act 2008***

**Inquest into the Death of:** TAKASHI LE MINH

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| Delivered On: | 21 May 2013 |
| Delivered At: | Level 11, 222 Exhibition Street<br>Melbourne 3000 |
| Hearing Dates: | 21 May 2013 |
| Findings of: | Dr J Hendtlass, Coroner |
| Representation: | Ms R Singleton appeared for the Office of Corrections |
| Police Coronial Support Unit | Sgt D Dimsey appeared to assist the Coroner |

I, JANE HENDTLASS, Coroner having investigated the death of TAKASHI LE MINH

AND having held an inquest in relation to this death on 21 May 2013
at MELBOURNE
find that the identity of the deceased was TAKASHI LE MINH
born on 27 February 1977
and the death occurred on 25 June 2011
at Royal Melbourne Hospital, Grattan Street, Parkville 3052
**from:**

1 (a) ACUTE INTRACRANIAL HAEMORRHAGE
1 (b) MALIGNANT HYPERTENSION
1 (c) RENAL ARTERY STENOSIS

**in the following circumstances:**

1. Takashi Le Minh was 34 years old when he died. He lived at Unit 3, 8 Elwood Street in Notting Hill. On 27 March 2011, he was remanded for charges relating to trafficking and possession of methyl amphetamine, heroin and prescription medication. Mr Le Minh was held in custody at the Metropolitan Remand Centre in Middle Road, Truganina.

2. Mr Le Minh's medical history included intravenous drug use, malignant hypertension, diabetes, asthma and a prosthetic mitral valve secondary to infective endocarditis.

3. Mr Le Minh was prescribed warfarin in the community to assist in preventing thrombosis interfering in the operation of his prosthetic mitral valve. However, he was non-compliant with having the blood tests required for routine assessment of his coagulation rate which is expressed as the prothrombin International Normalised Ratio ("INR").

4. The normal range for the INR in unmedicated people is 0.8 to 1.2. Patients with a prosthetic mitral valve are usually required to take warfarin to maintain an INR in the range of 2.5-3.5. Further, patients requiring anticoagulation to prevent or treat deep vein thrombosis or pulmonary embolism are managed with an INR of 2.0-3.0.

5. On 31 March 2011, Mr Le Minh's INR was 1.6. He was prescribed Coumadin brand 5.0mg warfarin daily in an attempt to achieve therapeutic coagulation rates. He was also waiting for an MRI and cardiology review.

6. On 14 April 2011, Mr Le Minh's INR was 3.5. Therefore, Dr Bruce McLaren decreased his warfarin dose from 5.0mg to 4.0mg daily and ordered weekly assessment of his INR.

7. On 27 April 2011, Dr McLaren reviewed Mr Le Minh's coagulation rates. He noted that they had decreased to 1.9 on 4.0mg warfarin daily. Therefore, he changed Mr Le Minh's daily warfarin dose to 4.5mg and 5.0mg on alternate days.

8. By 9 May 2011, Mr Le Minh's routine assessment of his coagulation rate on the alternate day regime INR was 2.7 which was within target range. On 31 May, it was back to 1.7. Dr McLaren ordered return to 5mg warfarin a day and review in one week

9. On 9 June 2011, Mr Le Minh's INR was 2.3. Dr McLaren ordered continuation of the same warfarin dose and review in two weeks.

10. On 13 June 2011, Mr Le Minh reported a five day history of persistent headache unrelieved by Panadiene Forte. His blood pressure was 184/120mmHg. Mr Le Minh was transferred to St Augustine's Ward at St Vincent's Hospital for further assessment including a CT brain to exclude a brain haemorrhage.

11. At 12.30pm on 13 June 2011, Mr Le Minh presented to St Vincent's Hospital. He was diagnosed with mild renal impairment and bilateral renal artery stenosis of more than 60% which was considered the likely cause of his hypertension. An ECG showed left ventricular hypertrophy requiring transthoracic echocardiogram follow up. Further, the CT brain showed two localised hyperdense lesions of unclear aetiology requiring MRI follow up. There was no intracranial haemorrhage, extra axial collection or midline shift.

12. At St Vincent's Hospital, Mr Le Minh's anticoagulant regime was changed to Marevan brand warfarin and 70mg Clexane (enoxaparin/low molecular weight heparin) injections daily. His blood pressure was controlled satisfactorily with 10mg daily amlodipine. His INR's progressively increased from 1.6 to 1.9.

13. This rate of coagulation is remained sub-therapeutic for prevention of clots such as deep vein thrombosis and pulmonary embolism and for protection from both mitral valve management and renal stenosis. Therefore, Mr Le Minh required daily INR monitoring.

14. On 16 June 2011, Mr Le Minh was discharged from St Vincent's Hospital back to Melbourne Remand Centre. Dr McLaren reviewed Mr Le Minh's discharge documentation without

seeing Mr Le Minh. He could not understand why the anticoagulant regime was changed and ordered reversion to 5mg Coumadin brand warfarin daily for safety reasons with INR checks on Monday and Friday and medical review in three to four weeks.

15. As well, plans were made for Mr Le Minh's medical review at St Vincent's Hospital on 29 June 2011, an outpatient's cardiology appointment on 4 August 2011, a follow up appointment at renal outpatients clinic in a week and a transthoracic echocardiogram.

16. On 17, 18, 19, 20 June 2011, Mr Le Minh was administered 70mg enoxaparin. On 17, 18 and 19 June, his blood pressure remained about 130/95mmHg.

17. On 17 and 20 June 2011, Mr Le Minh's INR was 1.9 remained below the therapeutic range for prosthetic heart valves and the 2.3 he recorded on 9 June 2011.

18. On 20 June, 2011 orders were written to continue enoxaparin and increase the warfarin dose to 5.5mg for the next two days.

19. At 7.10pm on 21 June 2011, Mr Le Minh presented to the nurses' clinic at Melbourne Remand Centre with a mild headache and a blood pressure of 155/100mmHg. He was reviewed at 10.30am on 22 June. His blood pressure was 140/95mmHg. His INR was still 1.8. His enoxaparin was continued. Mr Le Minh denied any continuing headache.

20. At 3.30pm on 23 June 2011. Mr Le Minh's blood pressure was 145/90mmHg. A further 70mg enoxaparin was administered

21. At about 11.40am on 24 June 2011, Mr Le Minh complained of severe headaches while he was working in the Industries Area at the Metropolitan Remand Centre. At 11.50am, he complained again. He was unsteady on his feet but he was able to walk unassisted towards the medical unit.

22. However, after walking about 100 metres, Mr Le Minh's speech became slurred and he lost movement in his left side. Mr Le Minh collapsed in the Central Movement Control. At 12.08pm, nursing staff called an ambulance. At 12.21pm, ambulance officers found his blood pressure to be 200/130mmHg.

23. At 1.25pm on 24 June 2011, Mr Le Minh presented to the Royal Melbourne Hospital. His INR was 2.1 so he was given fresh frozen plasma and prothrombinex. A CT scan showed

right intracranial haemorrhage. He was admitted to the Intensive Care Unit but surgery was deemed futile.

24. At 4.31am on 25 June 2011, life support was withdrawn and Takashi Le Minh died.

25. The forensic pathologist who inspected the body formed the opinion that a reasonable cause of death in the circumstances was acute intracranial haemorrhage, malignant hypertension and renal artery stenosis.

26. Accordingly, I find that Takashi Le Minh died from acute intracranial haemorrhage, malignant hypertension and renal artery stenosis.

27. Mr Le Minh had a history of malignant hypertension, diabetes, asthma and a prosthetic mitral valve secondary to infective endocarditis. These issues were addressed appropriately when he presented to the prison system on 27 March 2011. In particular, Dr McLaren implemented a system for reviewing his coagulation rates and adjusting his anti-coagulant doses.

28. Further, on 13 June 2011, Mr Le Minh was quickly transferred to St Vincents Hospital when he presented to the prison health service with symptoms that were consistent with a differential diagnosis of a brain haemorrhage.

29. On admission to St Vincents Hospital, Mr Le Minh was diagnosed with bilateral renal artery stenosis which accounted for his malignant hypertension and this was reversed to some degree with anti-hypertensive medication. A CT brain scan specifically failed to detect any intracranial haemorrhage.

30. St Vincents and prison staff arranged appropriate follow-up appointments to address known issues relating to Mr Le Minh's renal issues, left ventricular hypertrophy and two undiagnosed localised lesions in his brain.

31. After discharge from St Vincents Hospital on 16 June 2011, Mr Le Minh was reviewed as required to monitor his coagulation rates and blood pressure. Further, on 20 June, his warfarin dose was increased when his INR failed to respond to increases in his anticoagulants. His reports of headaches were intermittent.

32. On 24 June 2011, Mr Le Minh complained of a severe headache. He collapsed when he was being transferred to the prison health service. An ambulance was called and he was

transferred to the Royal Melbourne Hospital. An intracranial haemorrhage was diagnosed but Mr Le Minh was not retrievable.

33. Therefore, I have decided it is unnecessary for me to hear further evidence to clarify the circumstances in which Mr Le Minh died.

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

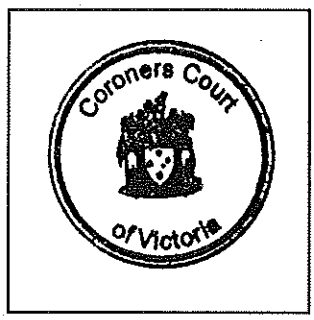
Ms Makato Le Minh, next of kin

Senior Constable Belinda Muuha, Investigating Officer, Melton Police Station

Corrections Victoria

Interested Parties

Signature:




DR JANE HENDTLASS
CORONER
Date: **21 May 2013**