IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

COR 2018 004883

FINDING INTO DEATH WITHOUT INQUEST

Form 38 Rule 63(2)

Section 67 of the ***Coroners Act 2008***

Findings of:	Coroner Darren J. Bracken
Deceased:	Warren Douglas Frazer
Date of birth:	15 November 1972
Date of death:	27 September 2018
Cause of death:	1(a) COMPLICATIONS OF VATS PROCEDURE FOR LOCALLY ADVANCED RIGHT UPPER LOBE LUNG ADENOCARCINOMA
Place of death:	St.Vincents Hospital Melbourne, 41 Victoria Parade, Fitzroy, Victoria, 3065
Keywords:	VATS, Video assisted thoracoscopic surgery, Lung cancer, Adenocarcinoma, Vertebral body, CSF leak, Post-surgical epidural haematoma, Tracheopleural fistula, Pneumocephalus. Sub arachnoid intraventricular aerocephalus.

INTRODUCTION

1. On 27 September 2018, Mr Warren Douglas Frazer was 45 years old when he died at St. Vincent's Hospital, Victoria Parade, Melbourne. Mr Frazer had undergone surgery at the Northern Hospital in Cooper Street, Epping on 13 August 2018, was transferred to St Vincent's on 14 August 2018 and underwent further surgery there on that day and 23 August 2018. Mr Frazer underwent yet further surgery on 12, 13, 21 and 27 September 2018. When Mr Frazer was admitted to the Northern Hospital, he was living with his partner of some 10 years, Ms Forlani.

THE CORONIAL INVESTIGATION

2. Mr Frazer's death was reported to the Coroner because it was a 'reportable death' pursuant to section 4 *Coroners Act* (2008) (the Act). Reportable deaths include deaths that are unexpected, unnatural or violent or result from accident or injury or indeed a death that occurs during or following a medical procedure when a registered medical practitioner would not, immediately before the procedure was undertaken, have reasonably expected the death.

3. The coroner's role is to independently investigate reportable deaths and to establish, if possible, identity of the deceased, the cause of death, and the surrounding circumstances. Surrounding circumstances are limited to events which are sufficiently proximate and causally related to the death. The purpose of a coronial investigation is to establish the facts, not to cast blame or determine criminal or civil liability.

4. Under the Act, coroners also have the important functions of helping to prevent deaths, promote public health and safety and the administration of justice by making comments or recommendations about any matter connected to the death under investigation.

5. Victoria Police assigned First Constable A Lewis as the Coroner's Investigator for the investigation of Mr Frazer's death. First Constable Lewis conducted inquiries on my behalf, including taking statements from witnesses and collating reports including from the forensic pathologist who conducted the autopsy and treating clinicians. First Constable Lewis compiled and submitted a coronial brief incorporating this material.

6. This finding draws on the totality of the coronial investigation into Mr Frazer's death including the material contained in the coronial brief.

Whilst I have reviewed all the material, I will only refer to that which is directly relevant to my findings or necessary for narrative clarity. In the coronial jurisdiction, facts must be established on the balance of probabilities.[1]

MATTERS IN RELATION TO WHICH A FINDING MUST, IF POSSIBLE, BE MADE

Circumstances in which the death occurred

7. As a result of a chest X-ray, a CT scan, conducted on 26 April 2018 and a PET scan conducted on 24 May 2018, Mr Frazer was found to have a lung cancer lesion – a nodule for which malignancy was not excluded that appeared to indent the pleura and paraspinal soft tissue at the level of the T6 vertebrae. Mr Frazer was referred to the Northern Hospital's thoracic outpatient unit and reviewed in the Northern Hospital Respiratory Outpatient Clinic on 21 June 2018. Mr Frazer underwent a Cardiopulmonary Exercise Test on 26 June and a lung biopsy on 27 June 2018 which revealed an 'extensively necrotic tumour with minute amounts of viable tumour showing findings consistent with non-small cell carcinoma and favour lung cancer adenocarcinoma'. On 5 July 2018, Mr Frazer's case was discussed at the Northern Hospital's lung multidisciplinary meeting and on 12 July he was reviewed by the Thoracic Outpatient Clinic and placed on the 'wait list' for surgery to be conducted within 30 days.

Surgery and The Neurological Problem

Mr Mitnovetski

8. In his statement made for the coronial brief. Mr Mitnovetski, a cardiothoracic surgeon, referred to reviewing and discussing the then, as at 13 August 2018, existing imaging with a consultant radiologist and both of them reaching the conclusion that there was no invasion of tumour to the chest wall. In his statement, Mr Mitnovetski referred to the 'significant delay' between the date of the original CT chest scan, 26 April 2018 and 13 August 2018 and that obtaining further imaging would, he thought, have postponed the surgery allowing the cancer to 'progress further'. Mr Mitnovetski noted that less than seven weeks had elapsed since the biopsy of 27 June 2018 and that according to the Northern Hospital's Cancer Optimal Care pathway, imaging should have occurred within six weeks of 'operative management'.

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[1] 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.

9. On 13 August 2018, Mr Mitnovetski, operated on Mr Frazer for right upper lobe primary lung adenocarcinoma.[2] In his statement Mr Mitnovetski describes the imaging and video camera assessment causing him to believe that there was localised invasion of the tumour into the posterior aspect of the right sixth rib with 'no obvious signs of irresectable diseases elsewhere'. The tumour was aggressive, poorly differentiated and had invaded the chest wall. Mr Mitnovetski refers to palpation leading him to consider that there was invasion of the tumour to the posterior aspect of the right sixth rib but that he could not make a visual assessment unless he performed a right upper lobectomy. Mr Mitnovetski described complete surgical resection being necessary but that in doing so he encountered a 'neurological problem'. Mr Mitnovetski performed a right upper lobectomy and it became apparent that there was a small section of the tumour invading beyond the sixth rib into the surface of the sixth vertebral body.

10. In his statement, Mr Mitnovetski refered to considering stopping the surgery and seeking 'neurological services', but he explained such services were not available at the Northern Hospital. He decided that stopping the surgery to obtain neurological services was 'not conscionable', that simply 'cutting through the tumour to avoid operating on the vertebra would result in transcoelomic spread of cancer', which he considered to be 'unacceptable.'. Mr Mitnovetski completely resected the tumour including removing a section of the sixth vertebral body 'en-bloc' and applied the local haemostatic 'Surgicel' to the 'top of the bleeding surface of the right sixth vertebral body.'. Mr Mitnovetski explicitly referred to the Surgicel not being in the epidural space and to having performed a complete regional lymph dissection, a water test with 'high positive airway pressure ventilation which showed no air leak and concluding the surgery. Mr Mitnovetski referred to the intercostal drain being 'connected to the underwater seal system with minimal bubbling, and Mr Frazer being extubated and transferred to recovery.

11. Mr Mitnovetski referred to assessing Mr Fraser in recovery and noticing a weakness in his right leg. Mr Frazer was assessed by a neurology registrar who considered him to have had a weakness in the right leg and a change in sensation below the level of T5/6. An MRI showed 'compression of the spinal cord at the level of T5/6 on the right-hand side. It was thought to be due to haematoma without structural abnormality of the spinal cord.

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[2] Statement of Mr S Mitnovetski dated 22 June 20.

After some difficulty finding an available room Mr Frazer was transferred to St.Vincent's Hospital for 'an urgent neurological procedure', a laminectomy.

12. In his statement Mr Mitnovetski referred to it [3] taking 'about 8 hours' from recognition of Mr Frazer's neurological deficit and transfer to St.Vincent's Hospital a time which Mr Mitnovetski considered detrimental to Mr Frazer's neurological condition due to prolonged compressive ischemia to the spinal cord. Dr Mitnovetski opines that had the laminectomy occurred earlier than it did that 'the extent of Mr Fraser's neurological problems could potentially have either been less or avoided altogether, there was no structural injury to the spinal cord.'.

Surgery at St.Vincent's Hospital

13. Mr Michael Wright, thoracic surgeon provided a statement setting out Mr Frazer's treatment at St.Vincent's Hospital commencing with his transfer there on 14 August 2018.

14. Mr Wright described the reason for Mr Frazer's transfer as being 'complications of right upper lobectomy ….presumed spinal cord compression with partial paraplegia involving both legs and sensation change below T6/T7 level. An MRI spine showed post surgical haematoma at T5/6 with compression of cord without cord signal abnormality.'. Mr Wright described 'Dr Nadig's, (a neurological fellow who operated on Mr Frazer on 14 August 2018) operation report referring to the spinal cord compression being due to 'haemostatic products (Surgicel or Gelfoam or similar) which he removed and that good decompression was achieved.

15. In his statement Mr Wright referred to being concerned with an 'ongoing air leak from the lung and possible empyema'. Mr Wright operated on Mr Frazer on 23 August 2018 performing a uniport thoracoscopic decortication of the lung (removal of infected material trapping the lung) and a 'thorough washout'. Mr Wright stapled some leaking lung on the right middle and lower lobes and created a pleural tent to reduce space around the remaining lung. Mr Wright described Mr Frazer's condition as improving after surgery albeit that the air leak persisted and there was significant fluid drainage. Mr Wright refers to the air leak having stopped by 4 September 2018 and a chest X-ray showing no sign of increasing pneumothorax. Mr Frazer was transferred to the Bolte Unit of St. Vincent's for spinal rehabilitation.

16. Mr Wright refers to a chest X-ray on 7 September 2018 showing increasing pneumothorax although Mr Frazer showed no symptoms; he was monitored by the cardiothoracic registrar.

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[3] Puss.

On 9 September 2018 Mr Frazer developed acute respiratory distress, tachycardia and so was transferred to the Emergency Department, a chest drain was inserted and he was re-admitted to the Cardiothoracic Unit on 10 September.

17. Mr Frazer's pneumothorax worsened and a larger chest tube was inserted. The air leak and partial lung collapse persisted and on 12 September 2018 Mr N Alam, thoracic surgeon, performed a fibre-optic bronchoscopy which revealed a perforation of Mr Frazer's airway with necrotic edges at the 'right trachea-bronchial angle'.

18. On 13 September, Mr Frazer was returned to the operating theatre for repair of this fistula. Significant purulent material was suctioned form the tracheal tube. The air leak was controlled, Mr Frazer was 'washed out' and the middle and lower lung lobes subject to formal decortication. Mr Frazer was extubated and returned to recovery.

19. On 20 September, Mr Frazer was found to have extensive subarachnoid and intraventricular aerocephalus (air mixed in with cerebro-spinal fluid). A bronchoscopy confirmed recurrence of the fistula.

20. On 21 September, Mr Frazer was returned to surgery to repair the fistula and for placement of a blood pleural graft over the likely place where air was leaking into the cerebro-spinal fluid.

21. On 23 September, temporary measures were put in place to aid the operation of Mr Frazer's lungs to maintain oxygen saturation and to drain pus. Subsequently, a tracheostomy was performed together with a bronchial blocker to control the fistula. While this intervention initially worked well enough for Mr Frazer to be transferred back to the ICU, he subsequently 'desaturated dramatically'[4] and became haemodynamically unstable and during resuscitation attempts it became apparent that the 'balloon' that had been placed in the fistula had come out and the fistula had become so large as to be unsalvageable. In his statement, Mr Wright refers to further unsuccessful attempts being made to assist Mr Frazer and it becoming apparent that further action was futile; resuscitation was ceased.

22. Mr Frazer was declared deceased at 1.20pm, 27 September 2018.

[4] The level of oxygen in his blood fell significantly.

Identity of the deceased

23. On 27 September 2018, Mr Dylan Frazer identified the deceased as his father, Warren Douglas Frazer, born 15 November 1972.

24. Identity is not in dispute and requires no further investigation.

Medical cause of death

25. On 3 October 2018 Dr Linda Iles a specialist forensic pathologist practising at the Victorian Institute of Forensic Medicine conducted an autopsy on Mr Frazer's body and in her resultant report dated 23 April 2019 opined that the cause of Mr Frazer's death was 'complications of VATS (Video Assisted Thoracoscopic Surgery) procedure for locally advanced right upper lobe lung adenocarcinoma.'.

26. In her report Dr Iles comments that :

> "*Post mortem examination documents evidence of a T5-T6 laminectomy and absent portions of the posterior right sixth rib. There is a communication between the epidural space and the right pleural cavity. Within the epidural tissues about the cord there is organising granulation tissue and necrotic bone and cartilage. There is no evidence of associated meningitis; however, in the region of T6 at the level of this fistula there is cavitation and cord infarction.*
>
> *Post mortem CI imaging demonstrates air within the lateral ventricles of the brain. This is associated with focal enlargement of the lateral ventricles. This would indicate that there has been a communication between the lung and the subarachnoid space at some point. This is not, however associated with established meningitis.*

27. I accept Dr Iles' opinions.

FAMILY CONCERNS AND CONCLUSIONS

28. By email letter dated 30 September 2018 Ms Berry wrote to the court on behalf of Mr Frazer's family alleging, amongst other things, that staff at the Northern Hospital were negligent and that Mr Frazer was the victim of medical malpractice. It is no part of this court's function to contemplate whether hospital staff have been negligent or indeed engaged in medical malpractice. In her letter Ms Berry specifically referred to a number of matters canvased by Mr Mitnovetski in his statement.

29. Ms Berry asked about whether Mr Mitnovetski was qualified to '…operate so close to his spine?' Mr Mitnovetski operated on, excised, a part of Mr Frazer's spine, a part of the sixth vertebral body. Mr Mitnovetski described considering alternatives to him operating on this part of Mr Frazer's spine, the difficulties that he confronted and the basis for deciding to remove part of the sixth vertebral body.[5] In his statement Dr Ferguson refers to Mr Mitnovetski as then being credentialled to perform the extended resection in the circumstances.

30. Ms Berry canvassed the sufficiency of pre-surgery scans. In his statement Mr Mitnovetski referred to he and a consultant radiologist discussing the existing imaging as at 13 August 2018 as a result of which Mr Mitnovetski concluded that the tumour had not invaded the chests wall. On that basis it is not clear that Mr Frazer ought to have been warned of the possibility of paraplegia and Mr Mitnovetski did not consider that perioperative neurosurgery opinion was necessary. Mr Mitnovetski's statement makes clear that, as at 13 August he considered the imaging available to him sufficient for his purposes and that to obtain further imaging would postpone the surgery "…*thus the cancer would progress further.*".

31. Mr Mitnovetski also explained that on the basis of imaging and video camera assessment he believed that there was localised invasion of the tumour into the posterior aspect of the right sixth rib with no obvious signs of irresectable disease elsewhere. It was not until Mr Mitnovetski was well into the surgery – when the sixth rib was divided from the tumour that he was able to ascertain that the cancer had invaded the sixth vertebral body. At that point his statement refers to him seeking neurological assistance only to be informed that no such assistance was available at the Northern Hospital. Mr Mitnovetski was caught on the 'horns of a dilemma'. He explained in his statement that with so much of the surgery completed that closing up Mr Frazer and leaving surgery incomplete was 'unconscionable' and that excising as much of Mr Frazer's lung as had been invaded by the cancer and leaving invaded bone risked spreading the cancer – an option which he considered not to be acceptable. He instead removed what he considered as much of the sixth vertebral body as was required along with cancerous other tissue. The material does not make clear to me that in the circumstances that Mr Mitnovetski ought not to have done so.

32. Ms Berry also refers to Mr Frazer's family not being kept informed about the progress of surgery and of Mr Frazer being moved to St. Vincent's Hospital. It is clear form Mr

[5] See above.

Mitnovetski's and Dr Ferguson's statements that the reason that Mr Frazer was moved to St.Vincent's Hospital was not a 'clot' having been discovered on Mr Frazer's spine but a neurological problem discovered post surgery.

33. Ms Berry sets out the family's concerns that when the surgery took much longer than expected that they were not kept updated. In his statement, Dr Ferguson sets out his expectation that a formal policy will be put in place '…within the next couple of weeks' providing for provision of such updates, of course says Dr Ferguson subject to the welfare and safety of the patient undergoing surgery. I address this issue in the recommendations set-out below.

34. Ms Berry sets out family concerns in relation to Mr Frazer being transferred from the Northern Hospital to St.Vincent's. Mr Mitnovetski also refers to this process in his statement. Dr Ferguson refers to an informal arrangement between the hospitals and attaches to his statement an unsigned memorandum of understanding between the Northern Hospital and St Vincent's dealing with the transfer of patients. Dr Ferguson also refers to having been involved in 'negotiations' with St.Vincent's Hospital in the twelve months prior to his statement to introduce a formal agreement with St.Vincent's Hospital in relation to the transfer of Northern Hospital patients particularly urgent neurosurgery patients. I also address this issue in the recommendations set-out below.

35. A number of issues raised by Ms Berry are not appropriately dealt with by the court, for example Mr Frazer being treated in his room at the hospital rather than in the operating theatre. Other of the concerns raised by Ms Betty, for example, whether or not Mr Fazer should have undergone 'a final scan' are dealt with in the body of this Finding.

FINDINGS

36. Pursuant to section 67(1) of the *Coroners Act 2008* I find that:

a) The identity of the deceased is Warren Douglas Frazer, born 15 November 1972.

b) Mr Frazer died on 27 September 2018 at St.Vincent's Hospital Melbourne, 41 Victoria Parade, Fitzroy, Victoria, 3065, from complications of VATS procedure for locally advanced right upper lobe lung adenocarcinoma and

c) Mr Frazer's death occurred in the circumstances described above.

COMMENTS

37. I note that in his statement Dr Ferguson refers to the Northern Hospital having appointed a Head of Thoracic Surgery and a full time Thoracic Surgeon to facilitate advice being available to surgeons seeking it. The Hospital reviewed the circumstances surrounding Mr Frazer's death and committed to ensuring that the Cancer Optimal Care Pathway is followed and established clinical governance requirements for the Thoracic Unit including:

    a) A defined referral process via which all patients are discussed at multidisciplinary team review and

    b) pre-operative case planning meetings within the thoracic Unit to enable peer support to be provided.

38. The Northern Hospital has also reviewed their orientation program ensuring that clear information is provided (to all undertaking clinical care) about the importance of escalation and the support that is available where a clinician seeks to escalate a decision.

RECOMMENDATIONS

Pursuant to section 72(2) of the Act, I recommend noting the steps undertaken by the Northern Hospital set out in paragraphs 29 – 38 of Dr Ferguson's statement:

1. The Northern Hospital draw and implement a formal policy describing how family members and next of kin of those undergoing surgery are to be kept informed about the progress of the surgery particularly when the surgery takes longer than prior estimates provided to family and next of kin.

    See paragraphs 29 & 31 of Dr Ferguson's statement.
2. The Northern Hospital seek to formalise arrangements for transferring patients to St.Vincent's Hospital or The Austin Hospital and engross those arrangements in a protocol the terms of which are agreed upon by the hospitals.

    See paragraph 30 of Dr Ferguson's statement.
3. The Northern Hospital audit compliance with the Cancer Optimal Care Pathway in relation to patients' peri-operative investigations and planning.

    See paragraph 37 of Dr Ferguson's statement.

4. The Northern Hospital audit the effectiveness of the Head of Thoracic Surgery and the then newly appointed full time Thoracis Surgeon providing timely assistance and support to thoracic and other surgeons operating at the Northern Hospital.

Pursuant to section 73(1A) of the Act, I order that this finding be published on the Coroners Court of Victoria website in accordance with the rules.

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

Ms Marie-Ella Forlani,	Senior Next of Kin
Senior Constable A Lewis,	Coronial Investigator
Jess Bayly,	K&L Gates acting for Northern Health
Donna Filippich,	St Vincent's Health

Signature:

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Date : 18 October 2022

NOTE: Under section 83 of the ***Coroners Act 2008*** ('the Act'), a person with sufficient interest in an investigation may appeal to the Trial Division of the Supreme Court against the findings of a coroner in respect of a death after an investigation. An appeal must be made within 6 months after the day on which the determination is made, unless the Supreme Court grants leave to appeal out of time under section 86 of the Act.