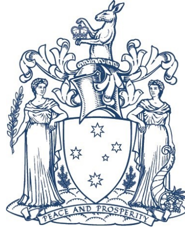

IN THE CORONERS COURT

OF VICTORIA

AT MELBOURNE

Court Reference: COR 2013 1298

FINDING INTO DEATH AFTER HAVING HELD AN INQUEST

Form 37 Rule 60(1)

Section 67 of the Coroners Act 2008

Deceased:	**BARRY BROWN**
Findings of:	**CORONER DARREN J. BRACKEN**
Delivered on:	20 July 2021
Delivered at:	Coroners Court of Victoria Kavanagh Street, Southbank
Hearing date:	8 to 15 October 2019
Appearances:	Mr R. Harper appeared on behalf of Dr Bronwen Evans.

Ms F. Ellis appeared on behalf of Western Health.

Mr P. Halley appeared on behalf of Professor Trevor Jones.

Dr S. Keeling appeared to assist the Coroner.

TABLE OF CONTENTS

1. BACKGROUND 5
2. THE PURPOSE OF A CORONIAL INVESTIGATION 6
3. THE SOURCE OF MR BROWN'S BLEEDING 8
3.1 The Autopsy Report, The Supplementary Reports & Dr Iles' Report 9
3.2 The evidence of Mr J.M. Lai regarding the Procedure 11
3.3 Analysis of Autopsy Report, the Supplementary Reports & Dr Iles' Report. 14
3.4 Professor P.A. Cashin's Report 16
3.5 Conclusion as to the source of Mr Brown bleeding 17
4. MR BROWN'S MANAGEMENT AFTER HE SHOWED SYMPTOMS OF INTERNAL BLEEDING 18
4.1 Issue 1: On ward delay in calling a doctor 18
4.2 Issue 2: Delay in contacting Ms Lai 21
4.3 Issue 3. The delay in Ms Lai attending Mr Brown after being called 22
4.4 Issue 4: Inadequate fluid resuscitation 24
4.5 Issue 5: The role of the port examination finding by Ms Lai 25
4.6 Issue 6: Preference for the diagnosis of cardiogenic, and not hypovolaemic, shock 26
4.6(a) Dr Su Ba Thai Pham, ICU registrar 26
4.6(b) Consultant surgeon Ms Juin Min Betty Lai 29
4.6(c) Professor Trevor Jones, general surgeon 33
4.6(d) Dr Bronwen Evans, anaesthetist 42
4.6(e) Dr Craig French, intensive care physician 50
4.6(f) Associate Professor Brewster, independent expert intensivist and anaesthetist 55
4.6(g) Professor P.A. Cashin, independent expert upper abdominal and hepatobiliary surgeon 58
5. CONCLUSIONS AND FINDINGS 63
5.1 Mr Brown's treatment before he arrived at the Intensive Care Unit. 63
5.2 First Doctor's examination of Mr Brown and Notification of Ms Lai 63
5.3 Lack of adequate fluid resuscitation 64
5.4 Dr Evans' & Dr French's Roles 64
5.5 Waiting for an echocardiogram before returning Mr Brown to the operating theatre 69
5.6 Confirmation bias 70
5.7 Senior Medical Staff / Consultants Attending the Hospital After Hours 73

5.7(i) Who was the ultimate decision-maker regarding Mr Brown's management? 74

5.8 Mr Brown's Chances of Surviving Surgery at Midnight, 2.00am and Afterward 75

6. MATTERS IN RELATION TO WHICH FINDINGS MUST, IF POSSIBLE, BE MADE 77

7. RECOMMENDATIONS 77

HIS HONOUR:

1. BACKGROUND

1. On 27 March 2013 Mr Barry Brown was 56 years old when he died in the Western Hospital ("**Hospita**l") the day after undergoing an elective laparoscopic cholecystectomy.[1]

2. On 28 February 2013 Mr Brown underwent an abdominal ultrasound examination which showed him to have multiple gallstones.[2] On 14 March 2013 Mr Brown's general practitioner referred him to the Hospital and on 18 March 2013 he underwent an endoscopic retrograde cholangiopancreatogram (**ERCP**).[3] As at March 2013 Mr Brown's medical history included asthma, obesity, likely obstructive sleep apnoea, and smoking. On 26 March 2013 Mr Brown underwent laparoscopic cholecystectomy and operative cholangiogram (**the Procedure**) at the Hospital, conducted by surgeon Ms Juin Min Lai.

3. On 2 April 2013 Dr Malcolm Dodd, a forensic pathologist practising at the Victorian Institute of Forensic Medicine, conducted an autopsy on Mr Brown's body and in a resultant report, ("The Autopsy Report"), opined that the cause of Mr Brown's death was

   "*…1(a) Internal blood loss, 1(b) Complications arising from laparoscopic* cholecystectomy.".[4]

4. I accept Dr Dodd's nominated cause of death. I deal with a number of issues arising from the content of the Autopsy Report and further pathology reports canvassing the content of the Autopsy Report in some detail later in this Finding.

5. Many facts surrounding Mr Brown's death are uncontroversial including:

   (a) His medical history.

   (b) The circumstances surrounding his admission to the hospital on 18 March 2013, the ensuing ERCP and his discharge on 22 March 2013.

---

[1] Surgical Removal of the gallbladder.

[2] Inquest brief 230.

[3] A procedure to examine the liver, gallbladder and pancreas.

[4] Autopsy Report dated 7 June 2013.

(c) His planned re-admission for cholecystectomy on 26 March 2013, and that re-admission.

(d) That there were 'complications' as a result of the Procedure including internal bleeding.

(e) The medical cause of his death, articulated by Dr Dodd, 'internal blood loss arising as a complication of laparoscopic cholecystectomy'.

6. Why and how Mr Brown died as a result of internal blood loss after having undergone the Procedure is the main subject of controversy. That controversy has two parts. First, how it was that Mr Brown came to bleed internally after the Procedure and second, his management after he started to show signs of bleeding.

7. I consider these issues in the context of my obligations under the *Coroners Act* (2008) ("**the Act**").

8. Between 8 and 15 October 2019 I conducted an inquest to address the controversies regarding Mr Brown's death. As will be clear from the dates, the further pathology reports were provided to the Court after the inquest and were circulated to all interested parties. The Court heard viva-voce evidence from seven witnesses and 16 exhibits were tendered including 'the balance of the Inquest Brief'. Written submissions were provided by Counsel Assisting, and on behalf of Dr Bronwen Evans, Western Health (including on behalf of nurse Jeanette Lewis, surgeon Ms Juin Min Lai and intensivist Dr Craig French) and surgeon Professor Trevor Jones.

9. In drawing conclusions and making the findings here set out I had regard to all the evidence from the inquest and the submissions. This finding does not explicitly refer to the entirety of that material but sets out the evidence upon which I rely to draw the conclusions and make the findings.

2. THE PURPOSE OF A CORONIAL INVESTIGATION

10. Mr Brown's death constituted a '*reportable death*' pursuant to section 4 of the Act; his death occurred in Victoria and was one or more of unexpected or unnatural and followed a medical procedure.

11. The Act requires a Coroner investigating reportable deaths such as Mr Brown's to find, if possible:

(a) The identity of the deceased.

(b) The cause of the death; and

(c) The circumstances in which the death occurred.[5]

12. For coronial purposes, "*circumstances in which the death occurred*"[6] refers to the context and background of the death including the surrounding circumstances. Rather than being a consideration of all the circumstances which might form part of a narrative, culminating in the death, required findings in relation to circumstances are limited to those circumstances which are proximate to the death.

13. The Coroner's role is to establish facts, rather than to attribute or apportion blame for the death. It is not the coroner's role to determine criminal or civil liability[7] nor to determine disciplinary matters.[8]

14. One of the broader purposes of coronial investigations is to reduce the number of preventable deaths in the community and to that end Coroners may:

    (a) Report to the Attorney-General on a death;[9]

    (b) Comment on any matter connected with the death including matters of public health or safety and the administration of justice;[10] and

    (c) Make recommendations to any minister or public statutory authority on any matter connected with the death, including public health or safety or the administration of justice.[11]

15. Coronial findings must be underpinned by proof of relevant facts on the balance of probabilities applying the principles of such proof set out by the Chief Justice in *Briginshaw v Briginshaw*.[12]

---

[5] *Coroners Act 2008* (Vic) preamble; s 67.

[6] *Coroners Act 2008* (Vic) s 67(l)(c).

[7] *Coroners Act 2008* (Vic) s 69(1).

[8] *Keown v Khan* [1999) 1 VR 16.

[9] *Coroners Act 2008* (Vic) s 72(1).

[10] *Coroners Act 2008* (Vic) s 67(3).

[11] *Coroners Act 2008* (Vic) s 72(2).

[12] (1938) 60 CLR 336, pp. 362-363. See *Domaszewicz v State Coroner* (2004) 11 VR 237, *Re State Coroner; ex parte; Minister for Health* (2009) 261 ALR 152 [21]; *Anderson v Blashki* [1993] 2 VR 9, 95.

16. The strength of evidence necessary to so prove facts varies according to the nature of the facts and the circumstances in which they are sought to be proved.[13] Proof of facts underpinning a finding that would, or may, have an extremely deleterious effect on a party's character, reputation or employment prospects demands a weight of evidence commensurate with the gravity of the finding, and effect.[14]

17. Facts should not be considered to have been proved on the balance of probabilities by inexact proofs, indefinite testimony, or indirect inferences,[15] rather such proof should be the result of clear, cogent or strict proof in the context of a presumption of innocence.[16] Such a description should be interpreted in the context of the coronial jurisdiction being inquisitorial and having nothing to do with guilt or innocence.

3. THE SOURCE OF MR BROWN'S BLEEDING

18. Determining the source of Mr Brown's bleeding was not assisted by the need for the content of the Autopsy Report to be 'clarified'.[17] This clarification required three further reports: a "**Supplementary Report**",[18] an "**Addendum to Supplementary Report**",[19] (together "**The Supplementary Reports**") and "Supplementary Report on Case No.001298/13 Barry Brown", ("**Dr Iles' Report**")[20].

---

[13] *Qantas Airways Limited v Gama* (2008) 167 FCR 537 at [139] per Branson J but bear in mind His Honour was referring to the correct approach to the standard of proof in a civil proceeding in a federal court with reference to section 140 of the *Evidence Act 1995* (Cth); *Neat Holdings Pty Ltd. Karajan Holdings Pty Ltd* (1992) 67 ALJR 170 at pl 70- 171 per Mason CJ, Brennan, Deane and Gaudron JJ.

[14] *Anderson v Blashki* [1993] 2 VR 89, following *Briginshaw v Briginshaw* (1938) 60 CLR 336, referring to *Barten v WilLaims*(1978) 20 ACTR 10; *Cuming Smith & Co Ltd v Western Farmers Co-operative Ltd* [1979] VR 129; *Mahon v Air New Zealand Ltd* [1984] AC 808 and *Annetts v McCann* (1990) 170 CLR 596.

[15] *Briginshaw v Briginshaw* (1938) 60 CLR 336, at pp. 362-3 per Dixon J.

[16] *Briginshaw v Briginshaw* (1938) 60 CLR 336, at pp. 362-3 per Dixon J.; *Cuming Smith & CO Ltd v Western Farmers Co-operative Ltd* [1979] VR 129, at p. 147; *Neat Holdings Pty Ltd v Karajan Holdings Pty Ltd* (1992) 67 ALJR 170 at pl 70-171 per Mason CJ, Brennan, Deane and Gaudron JJ.

[17] Autopsy Report dated 7 June 2013.

[18] Supplementary Report dated 17 October 2019.

[19] Addendum to Supplementary Report dated 19 December 2019.

[20] Supplementary Report on Case No. 1298/13 by Dr Linda Iles dated 16 March 2020.

3.1 The Autopsy Report, The Supplementary Reports & Dr Iles' Report

19. The Autopsy Report refers to:

    (a) The gallbladder not being 'identified' (it being absent);

    (b) A small, ligated blood vessel that also carries a metallic clip. The vessel ligation appearing to be sound;

    (c) A small blood vessel having been ligated, both with sutures and a metallic clip;

    (d) A small clip on the common bile duct; and

    (e) There being two compressed (meaning closed) metallic clips lying loose in the region of the cystic duct and cystic artery, which were not in close association with regional blood vessels and had perhaps become dislodged at some time giving rise to internal blood loss.[21]

20. The Supplementary Report refers to:

    (a) The reference in the Autopsy Report to 'clip being seen on the common bile duct' being erroneous; the clip was on the cystic duct;

    (b) An inability to determine if the liquid and clotted blood found at autopsy was arterial or venous blood. The peritoneal cavity containing 4.8 litres of liquid and clotted blood. There being a small amount of adherent blood clot noted over the gallbladder bed. The fatty tissue in close proximity to the anatomical region of the cystic duct and artery were markedly haemorrhagic and also a moderate amount of loosely adherent blood clot was identified overlying these structures;

    (c) The small metal clip being found lying loose in the surgical zone being not associated with any duct or vessel but perhaps having been used to ligate an artery or vessel and having become dislodged; and

    (d) The operative site disclosing two areas of ligation – one by suture and another by metallic clip.[22]

---

[21] Autopsy Report pp.6 & 11.

[22] Supplementary Report p.1 & 2.

21. The Addendum to the Supplementary Report refers to there being one area of suture ligation, one area of metallic clip ligation and a further single clip lying loose, mixed in blood clot in the operative site.

22. Various clips, structures and other features seen in a photograph taken at autopsy (**the Autopsy Photograph**) were labelled and enumerated and provided to Dr Iles the Head Forensic Pathologist at the Victorian Institute of Forensic Medicine. Dr Iles considered the Autopsy Report, The Supplementary Autopsy Reports and the Autopsy Photograph and drew her own report in which Dr Iles' set out the following conclusions.[23]

Conclusion 1

23. The descriptions in the Supplementary Reports of what is said to have been seen at autopsy are inconsistent with the Autopsy Photograph.[24] The Autopsy Photograph shows four discrete metallic clips and suture material. The Addendum to the Supplementary Report refers to one area of suture ligation, one "area" of metallic clip ligation and a further single clip. It is unclear whether the area of metallic clip ligation refers to the cluster of two clips or a single clip.[25]

Conclusion 2

24. The surgical clips numbered 1 and 2 in the Autopsy Photograph are on 'a tubular structure.' Whether the tubular structure is the cystic duct or the cystic artery cannot be ascertained.[26]

Conclusion 3

25. The surgical clip numbered 3 is 'open' sitting on a blood clot and adipose tissue and does not appear to be occluding any structure.[27]

Conclusion 4

26. Dr Iles was unable to determine whether the surgical clip numbered 4 is compressing a duct or vessel; no ductular structure can be seen protruding from the clip.

---

[23] Addendum to Supplementary Report p.1.

[24] Dr Iles' Report, p.1.

[25] Dr Iles' Report, p.1.

[26] Dr Iles' Report, p.2.

[27] Dr Iles' Report, p.2.

If it is attached to a vessel or duct it would be an ineffective way of ensuring that the vessel or duct was occluded.[28]

Conclusion 5.

27. The area numbered 5 is a reflection of light from the camera flash.[29]

Conclusion 6.

28. The item numbered 6 in the Autopsy Photograph is a Monocryl-like material that is likely to be the endoloop of a ligation, although any structure to which the ligation is attached cannot be seen or determined. Such endoloops are commonly used to further ligate the cystic duct.

Conclusion 7.

29. The area numbered 7 is a reflection of light from the camera flash.

3.2 The evidence of Ms Juin Min Lai regarding the Procedure

30. Dr Juin Lai was the general surgeon who performed the cholecystectomy on Mr Brown; she provided three written statements to the Court.

31. In her viva voce evidence Ms Lai explained that as at March 2013 she was a Fellow of the Royal Australian College of Surgeons undergoing further surgical training under the supervision of Professor Trevor Jones.[30]

32. Ms Lai gave evidence that she had some direct memory of Mr Brown and the Procedure including that Mr Brown was a high-risk patient, that she was more than careful and really took her time with him. Ms Lai said that while she had some recollection of the Procedure, she could not specifically say what she did on the day; she was unable to actually recall much. Ms Lai said that subject to the complexity added by Mr Brown's body habitus[31] the operation was 'very routine' for her.[32]

---

[28] Dr Iles' Report, p.2.

[29] Dr Iles' Report, p.2.

[30] T.145-147.

[31] Mr Brown weighed 160kg.

[32] T.160-161.

She explained that she put a 5th port (laparoscopic port) in so that she could achieve a critical view and that having used an 'on table cholangiogram' she was confident that she 'clipped the cystic duct'. Ms Lai largely if not completely described the Procedure on the basis of what her normal practice was rather that what she remembered of what she had done. The Procedure took approximately one hour and 47 minutes concluding at 3.34pm.[33]

33. Dr Keeling asked Ms Lai a considerable number of questions about the Procedure. Ms Lai explained that as a part of her usual practice when undertaking a cholecystectomy[34] she applied three surgical clips to the cystic duct, three to the cystic artery and then transected those structures so that two clips remained on as much of each structure as remained in the patient's body and one clip on each of as much of each structure as is removed with the gallbladder. Axiomatically such a practice would leave four clips inside the patient's body consistent with the content of the Autopsy Report and Dr Iles' Report.[35] While Dr Keeling didn't explicitly ask Ms Lai about whether she used suture ligation as a part of her usual practice Ms Lai did not give evidence that she did.

34. Dr Keeling put to Ms Lai that the Autopsy Reports referred to a small blood vessel being ligated as well as carrying a small metal clip and asked if it was likely that Mr Brown was bleeding from "*…the vessel that had the clip on it?*". Ms Lai said "*No*".[36]

35. Dr Keeling asked Ms Lai about the possibility of clips that she had applied to structures 'coming off'. Ms Lai gave evidence that two clips coming off was uncommon[37] and went on to say that she would have "*…inspected…*" the clips that she placed. Ms Lai explained that sometimes when the clips are put on they can:

    "*…cross and just the way that the applicator work and they may be faulty. I will remove it and apply it again or I will apply another one just to secure it. So, I would've inspected that and I – yeah I - I wouldn't accept it. I did not apply it appropriately because I was a very well-trained surgeon. Yes, I was a fellow then,*

[33] Inquest Brief p.269.

[34] T163-170.

[35] I note that the Autopsy Reports make clear that the cystic duct was ligated and not the common bile duct as was described by the Autopsy Report.

[36] T.318.

[37] T.327.

but I have done a number of this and I do not accept it... We reject the applicator and sometimes its just a way that the clip was applied at the time."[38]

36. Ms Lai gave evidence that she was confident that the clip applicator was working properly because if it was faulty she would have rejected it.[39]

37. The Autopsy Report contains no explicit reference to the cystic artery having been ligated by clip or otherwise. When asked about this Ms Lai was unable to say whether the small blood vessel referred to in the Autopsy Report as being ligated with a suture and a clip was the cystic artery. Ms Lai referred to the possibility of having encountered a bifurcation of the cystic artery – anterior and posterior in which case she said that she would have had to clip both branches. Ms Lai conceded that if she had encountered such a bifurcation and clipped both branches she should have recorded this in her operation report; she agreed that the report contained no such reference.[40]

38. Ms Lai said that her tendered statements were based on the clinical records.[41] When asked, Ms Lai was unable to explain why her Operation Report (a part of the medical record) or any of her tendered statements made no reference to her having ligated the cystic artery or any bifurcation of it.

39. Dr Keeling asked Ms Lai whether it was possible that she had neglected to clip the cystic artery. Ms Lai said that it was "*Very Unlikely.*" Despite Dr Keeling asking this question again and putting to Ms Lai that it was possible that she didn't ligate the cystic artery Ms Lai did not answer the question directly; she reiterated that it was "*Very unlikely…and it's very, very, very unlikely that I do not identify the cystic artery.*" "*Very unlikely*". [42] Ms Lai did not explicitly deny the possibility that she did not ligate the cystic artery despite being given a number of opportunities.

40. Ms Lai stated that Mr Brown may have bled from the liver-bed, the gallbladder fossa – the area of the liver to which the gallbladder is attached. Ms Lai referred to the middle hepatic vein sometimes being injured when the gallbladder is divided from the liver and bleeding then occurring from the liver-bed or the hepatic vein or both.

---

[38] T.327-328.

[39] T.329.

[40] T.320-321.

[41] T.178-180.

[42] T.179.

Ms Lai gave evidence that if the hepatic vein was injured and bled that she would expect to see the bleeding during the Procedure. Ms Lai also gave evidence that bleeding from the liver can be extensive and such bleeding may not stop until pressure is applied and that this bleeding can drain the whole body.[43]

Suture Ligation

41. The Autopsy Report refers to "*…a small blood vessel had been both ligated with sutures and a metallic clip…*".[44] The Supplementary Report refers to "*The operative site also disclosed two areas of ligation, one being via suture and another being by a further metallic* clip.".[45] The Addendum to the Supplementary Report refers to "*…one area of suture ligation…*" and Dr Iles refers to the Autopsy Photograph showing suture material, the endoloop, in the operation site. That Ms Lai used at least a suture, if not suture ligation during the Procedure is clear. On Ms Lai's evidence neither a suture nor a suture ligation is a part of her usual practice. How the suture or sutures came to be in the operation site is unknown and now probably unknowable. I am unable to say precisely what Ms Lai sutured or why.

3.3 Analysis of Autopsy Report, the Supplementary Reports & Dr Iles' Report.

42. I accept Dr Iles' assessments and conclusions that four metallic surgical clips and an endoloop of a Monocryl-like material were seen in the surgical zone at autopsy. Two of which (clips 1 & 2) ligated an unidentified structure, one clip was lying open (clip 3) and one clip, (clip 4) may have ineffectively ligated a duct or vessel or was unattached to a structure.

43. Bearing in mind Dr Dodd's correction in the Supplementary Report that the cystic duct was ligated by a metal clip and not the common bile duct as was reported in the Autopsy Report, the 'tubular structure' referred to by Dr Iles was likely to be the cystic duct notwithstanding that, inconsistently with the Autopsy Report, Dr Iles refers to it being ligated by two clips I accept that Mr Brown's cystic duct was ligated by a metal clip or clips.

[43] T.319-320.

[44] P.11.

[45] P.2.

44. Additionally, I accept that at autopsy:

(a) There was one metal clip found lying open in the surgical zone unattached to any structure (clip 3) and

(b) Whilst there was a second metal clip lying in the surgical zone (clip 4), I cannot say whether it was attached to any structure and if it was, what that structure was and whether the clip effectively ligated it.

45. I am conscious of Dr Dodd's reference in the Autopsy Report to a "… *a small blood vessel has been ligated and also carries a small metallic clip…The area of vessel ligation appears sound*.".[46] I am unable to identify this blood vessel. According to Dr Iles' Report that clip could not have been either clips 1 or 2 because both of those clips were attached to a tubular structure. It cannot be clip number 3 because that clip was open and unattached to a structure which is most likely to have been the cystic duct. It is possible that it is clip 4 although Dr Iles notes that this clip may not have effectively ligated any structure to which it was attached. The Autopsy Report refers to:

> "*A small blood vessel had been both ligated by sutures and a metallic clip however in close proximity to densely haemorrhagic fatty tissue in the region of the cystic duct and admixed with fresh blood clot there were two small compressed metallic clips lying loose with the clot mass.*[likely clips 3 and 4]. *It did not appear that these clips were in close association with any regional blood vessels and it is suggested that perhaps these clips may have become dislodged at some time giving rise to internal blood loss.*".[47]

46. Inconsistent with the Autopsy Report the Supplementary Report refers to "… *there is one area of suture ligation, one area of metallic clip ligation and a further single clip which was lying loose, mixed in blood clot in the operative site*". Which clip of the four clips Dr Dodd nominated as ligating the small blood vessel is unclear. Dr Dodd may have been referring to another clip not visible in the Autopsy Photograph.

---

[46] Autopsy Report, p.6.

[47] Autopsy Report, p.11.

3.4 Professor P.A. Cashin's Report

47. In his report Professor Cashin canvasses Ms Lai's statements and the Autopsy Report and concludes that cystic duct was clipped with 3 clips and endolooped. Professor Cashin refers to the operation report not referring to an attempt being made to identify or see the cystic artery and there being no mention of it having been clipped or ligated. Professor Cashin further explains that such may not represent error because often the cystic artery is too small to identify. Professor Cashin goes on to say that:

    "*… a heightened level of concern, knowing that it had not been clipped would be appropriate in the light of subsequent events. If a question of a post-operative haemorrhage was being entertained, as it was in this case, the fact that the cystic artery had not been formally identified or clipped would elevate the level of concern significantly and in this case should have [d]one so.*"[48]

48. Professor Cashin explains that the cystic artery is not "*…found/seen/identified…*" in approximately 5% of "*…these operations…"* but that it not having been found increases the level of awareness and concern.

49. I note Professor Cashin's reference to the operation report containing no explicit reference to the cystic artery having been identified and ligated and of this occurring in approximately 5% of '*…these* operations". I note the Autopsy Report reference to a small blood vessel being apparently securely ligated with a clip and suture. I also note Professor Cashin's evidence that the cystic artery bifurcates in a significant number of cases "*…5% - 10%...*) with one division going to the right and one to the left of the gallbladder. Professor Cashin gave evidence that:

    "*…You can be tricked by clipping one and then finding or seeing that second branch behind the gallbladder which may reveal itself of* [or?] *go unclipped during the surgery and be affected or spasmed by the diathermy. So, it is not inconceivable that she did clip – in fact clip two vessels, which is the branch of the cystic artery into two and one of those clips has come off. That would lead to pressure within the main cystic artery bleeding out of that branch.*[49]

---

[48] T61.

[49] T.765.

50. Professor Cashin gave evidence that it was difficult to tell whether Mr Brown's bleeding came from venous bleeding, perhaps from the gallbladder-bed or another source but that hypovolemic shock can and does occur as a result of arterial or venous bleeding from the gallbladder-fossa. Professor Cashin gave evidence that the tempo with which Mr Brown's bleeding occurred, the suddenness and the speed with which it developed, would be slightly suggestive more of a major vessel arterial bleed than it would be an ooze from the gallbladder-bed.

51. Based on the Autopsy Reports, Ms Lai's evidence and Professor Cashin's evidence I am unable to reach a conclusion about precisely what Ms Lai did during the procedure other than that she removed Mr Brown's gall-bladder and applied clips to the cystic duct. The evidence does not permit me to draw any conclusions about which structures the sutures referred to by Dr Dodd were ligating or what purpose the endoloop served or was meant to serve.

52. There is no evidence in any of the statements or in the viva voce evidence of the cystic artery having been identified or clipped during the Procedure. Dr Lai's evidence contains no reference to her having told Dr Evans or Dr French or indeed Professor Jones, during the evening of 26 March or the early hours of 27 March, that during the Procedure she did not identify or clip the cystic artery such as may have led to the "*…significantly elevated level of concern…*" or "*…the increased level of awareness…*" referred to by Professor Cashin in his report.[50]

3.5 Conclusion as to the source of Mr Brown's bleeding

53. I find that:

    (a) As a part of the Procedure Ms Lai ligated:

        (i) Mr Brown's cystic duct with metal surgical clips. I cannot say how many were left attached to that structure in Mr Brown's body after the gall-bladder was removed;

        (ii) A blood vessel with suture and a clip. I am unable to identify that blood vessel.

[50] Inquest Brief p.61.

(b) At autopsy:

(i) One metal surgical clip was found lying open in the surgical zone unattached to any structure (clip 3);

(ii) A second metal surgical clip was found lying in the surgical zone (clip 4). I cannot say whether this clip was attached to any structure and if it was, what that structure was or whether the clip effectively ligated it;

and

(c) Mr Brown's bleeding arose consequent to the Procedure.

54. The second issue then to be dealt with is why this bleeding was not identified and staunched early enough to prevent it causing Mr Brown's death.

4. MR BROWN'S MANAGEMENT AFTER HE SHOWED SYMPTOMS OF INTERNAL BLEEDING

55. After the Procedure concluded at about 3.43pm on 26 March 2013, Mr Brown was taken to the Post Anaesthetic Care Unit (**PACU**) and then at about 5.00pm to a ward where he was nursed by nurse Jeanette Lewis.[51]

4.1 Issue 1: On ward delay in calling a doctor

56. In her statement[52] Nurse Jeanette Lewis described being the ward nurse allocated to Mr Brown and of conducting and recording his half hourly observations. In her statement, Nurse Lewis refers to noticing Mr Brown's blood pressure had dropped at approximately 7.30pm. Nurse Lewis' evidence was that when she saw that drop, she got another "…*blood pressure machine…to recheck it…*".[53] and after rechecking at about 7.45pm she paged 'the doctor'.

57. Nurse Lewis agreed with Ms Ellis that the nursing notes recorded that at 7.30pm Mr Brown became "…*clammy and feeling dizzy*." and his blood pressure was 75/50.[54]

---

[51] Statement of Ms Lai dated 29 January 2014, pp.1-2.

[52] Statement of Jeanette Lewis dated 21 February 2019.

[53] T.17-18.

[54] T.19-20. T.36-37.

58. Dr Keeling asked Nurse Lewis about the Hospital's observation chart that was used to record Mr Brown's vital signs and its 'escalation algorithm' for clinical markers (**the Escalation Protocol**).[55] Nurse Lewis conceded that the Escalation Protocol required her to:

(a) consider if Mr Brown's drop in blood pressure was a "…*clinical* marker…" and if it was, whether Mr Brown required medical attention within five minutes;[56]

(b) if she didn't consider that Mr Brown needed attention within 5 minutes[57] to inform the nurse in-charge of the clinical marker and contact the Resident for urgent review within 15 minutes and maintain ½ hourly observations;[58]

(c) if Mr Brown's condition didn't improve or the Resident did not review Mr Brown within 15 minutes to contact the Unit or covering Registrar and ICU Liaison Services if that had not already been done.[59]

59. Nurse Lewis agreed with Dr Keeling that when at about 7.30pm she noticed Mr Brown's blood pressure drop that she considered it a "…*clinical marker*…" although she didn't think that he needed medical attention within 5 minutes.[60] Nurse Lewis gave evidence that after she noticed Mr Brown's drop in blood pressure she checked his blood pressure with another machine, saw that he was cold and clammy and notified the nurse in-charge between, she thought it could have been 7.30pm and 7.50pm. Nurse Lewis agreed however that she did not contact the Resident until 7.45pm.[61]

60. Nurse Lewis gave evidence that she paged "…*them*…" (doctors) at 7.45pm and that it was likely that the doctor attended Mr Brown at approximately 8.10pm.[62]

---

55 Inquest brief 305.

56 T.23.

57 T.23-24.

58 T.24.

59 T.24-25.

60 T.23-24.

61 T.24-25.

62 T.26.

61. Nurse Lewis agreed with Dr Keeling that the doctor didn't attend Mr Brown by 8.00pm and that she did not contact "*…the Unit…*" (Intensive Care Unit) when the Resident did not attend Mr Brown within 15 minutes of her 7.45pm page as the Escalation Protocol required but was unsure why.[63]

62. Nurse Lewis gave evidence that she thought that Mr Brown's drop in blood pressure wasn't a criterion for making a 'medical emergency' or 'code blue'. After being taken to some documents Nurse Lewis agreed that a combination of Mr Brown's drop in blood pressure and a doctor not having reviewed him within 15 minutes of her having paged the doctor that the criteria for her calling a '*code blue*' were met.[64] Nurse Lewis conceded that she hadn't made such a call but that "*…yes, maybe a code blue should've been called but um…*"…"*…I'm looking and recalling this, yes it should've been.*"[65] Dr Keeling took Nurse Lewis to further documents including a March 2013 protocol for calling code blue and Nurse Lewis again conceded that she ought to have called a 'code blue'.[66]

63. Nurse Lewis agreed, when Ms Ellis put it to her, that as at 7.30pm it was not her opinion that a Code Blue ought to be called and said that if it was her opinion that a Code Blue ought then to have been called that she would have called it.[67] Nurse Lewis gave evidence that she didn't call a Code Blue because Mr Brown was alert and "*…asymptomatic…*". Nurse Lewis agreed with the proposition Ms Ellis put to her that she, Nurse Lewis, had earlier given evidence that a Code Blue should have been called (at about 7.30pm) because when she gave that evidence she knew the outcome, what had befallen Mr Brown – that he had died.

64. The medical record shows that at approximately 7.45pm. Mr Brown reported feeling dizzy, was hypotensive, and one or more of the wound sites from the surgery were 'oozing'. Mr Brown was not transferred to the Intensive Care Unit ("**ICU**") until about 9.00pm[68] where his care was managed by Dr Kubicki and then Dr Pham.

---

[63] T.26.

[64] T.29-30.

[65] T.31.

[66] T.34.

[67] T.39.

[68] T.3. & P.293 IB.

4.2 Issue 2: Delay in contacting Ms Lai

65. As at 26 March 2013 Dr Li Tham was the general surgical registrar at the Western Hospital on duty for general surgical patients.

66. Dr Tham gave evidence that she first met Mr Brown at approximately 8.30pm on 26 March 2013, and she 'felt' that intra-abdominal bleeding needed to be excluded as a cause of his hypotension. She agreed that by 8.45pm a decision had been made to transfer Mr Brown to the ICU and that transfer had been effected by 9.00pm[69] notwithstanding that Dr. French's statement refers to the transfer being shortly after 9.00pm.[70] It is unknown why Mr Brown was not transferred to the ICU earlier.

67. Dr Tham agreed that she telephoned Ms Lai when Mr Brown became hypotensive because Ms Lai was the surgeon who had performed the cholecystectomy and Mr Brown's condition was critical. Dr Tham could not remember what time she called Ms Lai. Ms Lai's evidence was that this call occurred at approximately 9.30pm. Dr Tham agreed that if she had indeed called Ms Lai for the first time at 9.30pm, some 45 minutes after becoming concerned about Mr Brown bleeding internally that that was 'longer' than she would have liked it to be.[71]

68. Dr Tham gave evidence that she did not recall the detail of her conversation with Ms Lai other than that Ms Lai told her to arrange a diagnostic laparoscopy or laparotomy for Mr Brown. Dr Tham gave evidence that she did not speak to Professor Jones[72] and that while it was her role to book the emergency theatre she was unable to recall if she had; she said that she may not have. She gave evidence that she may not have spoken to the anaesthetic registrar but said that she believed that she would have shortly after speaking to Ms Lai on the telephone. Dr Tham gave no reason for perhaps not complying with what she said were Ms Lai's instructions; she gave evidence that it was unlikely that she played any role in the actual decision making.[73]

---

[69] T.627.

[70] Statement of Dr C.J. French Exhibit 10. P1.

[71] T.628.

[72] T.629

[73] T.630-631.

4.3 Issue 3: The delay in Ms Lai attending Mr Brown after being called

69. Mr Brown was transferred from the ward to the ICU around 9.00pm with a provisional diagnosis of post-operative internal bleeding for which the plan was a diagnostic laparoscopy or a laparotomy or indeed both if needed.[74]

70. Ms Lai gave evidence that she was at her home in Bulleen on 26 March when she received the first call from the Hospital from Dr Tham about Mr Brown at about 9.30pm, that she recalled the time very well because she had an alarm clock by her bed[75] and that after she spoke to Dr Tham, she put the phone down, called Professor Jones and then drove to the hospital. Ms Lai gave evidence that the drive from her home to the Hospital was about 40 minutes.

71. Dr Keeling canvassed the content of page 246 of the Inquest Brief which Ms Lai agreed were notes that she made at 12.50am on 27 March 2013 regarding Mr Brown. Those notes record Ms Lai having reviewed Mr Brown at 11.30pm on 26 March. Dr Keeling put to Ms Lai that she did not arrive at the Mr Brown's bedside until two hours after the telephone call from Dr Tham. Ms Lai agreed that that is what the notes record,[76] but said that she arrived at the Hospital earlier than 11.30pm.[77]

72. I note that in her statement dated 13 April 2015 Ms Lai asserts that she "*attended at the ICU at approximately 11.30pm*"[78] and she gave evidence that she was at the hospital before 11.15pm.; the medical notes seem to evidence this.[79] Dr Lai agreed with Dr Keeling that she first attended Mr Brown's bedside at approximately 11.30pm.[80]

73. Dr Keeling put to Ms Lai that the note she made at 12.50pm[81] of having reviewed Mr Brown at 11.30pm was accurate. Ms Lai suggested that she may have made a 'typographical error'.

---

[74] Statement of Dr French, p.1

[75] T.182.

[76] T.184-185.

[77] T.185.

[78] Exhibit 7.

[79] T.187.

[80] T.182.

[81] Page 246 Inquest Brief.

74. I note that the effect of Dr Pham's evidence was that he called Dr French for the first time at approximately 11.30pm because there was a "…*profound change in his condition.*"[82] Dr Pham made no reference to being aware that Ms Lai was then at the Hospital, notwithstanding that Ms Lai's evidence was that she first reviewed Mr Brown at 11.30pm.

75. Professor Jones' statement refers to medical notes recording that Ms Lai telephoned him at 10.20pm., and them discussing Mr Brown's condition and that consent had been obtained for a diagnostic laparotomy to exclude the possibility that Mr Brown was bleeding internally

76. Professor Jones gave evidence that he spoke to Ms Lai on the telephone during the night of the 26 March 2013 on a number of occasions, with the first time being about 8.00pm. When put to him that hospital records reveal that Ms Lai was called by the night general surgical registrar at 9.30pm. Professor Jones said he may have been wrong about the time Ms Lai first called him.[83]

77. Ms Lai agreed with Dr Keeling that she made the note of having first attended Mr Brown at 11.30pm. at approximately 12.50am on 27 March.[84] Dr Keeling put to Ms Lai that when she made the note at 12.50am recording her having first reviewed Mr Brown at 11.30pm on 26 March that her note accurately recorded the time that she had reviewed Mr Brown. Ms Lai gave evidence that she may have made a typographical error.[85] Ms Lai agreed with Dr Keeling that she would have reviewed her notes and corrected them if there was any error but:

> "… *again as I say, it was stressful situation, there's a lot of conversations happening and um as you can see as you can see two hours and how many minutes later, only we had time to document because all the time spent is to work out diagnosis, looking after the patient's well-being.*"[86]

78. It is likely that Ms Lai first spoke to Professor Jones shortly after she hung up from speaking to Dr Tham.

---

[82] T.117.

[83] T.637-638.

[84] T.182.

[85] T.189.

[86] T.189-190.

Ms Lai's note made at 12.50am is not a long note and it would be surprising if, having checked it, as she said she would have, that she didn't correct any error if she had seen one, once again as she said she would have. Ms Lai's statements and her evidence up until she first raised the possibility of a typographical error contained no suggestion of her notes containing any such error. There was no evidence of Ms Lai have spent time doing anything after arriving at the Hospital before she arrived at Mr Brown's bedside.

79. When asked about whether the reference in her notes to having reviewed Mr Brown at 11.30pm 'meant' that she arrived at the Hospital at that time and if she couldn't recall she might say so, Dr Lai replied "*I can't recall*". Dr Lai also gave evidence that her note referring to the haemoglobin being 11 at the time of review indicated that she was at the Hospital earlier than 11.30pm.

80. I note that in her statement dated 13 April 2015 Ms Lai asserts that she "*attended at the ICU at approximately 11.30pm*" and she gave evidence that she was at the hospital before 11.15pm; the medical notes evidence this.[87] Ms Lai denied that it took her two hours to get to the Hospital after having been first telephoned by Dr Tham.[88]

81. Ms Lai gave evidence that when she first arrived at the Hospital she made enquiries as any doctor would about Mr Brown and she thought that she would have called someone to find out where Mr Brown was, to be told that he was in the ICU. Ms Lai gave no evidence of having done anything particularly time consuming after having arrived at the hospital but before going to the ICU to see Mr Brown.

82. I am satisfied that Ms Lai first attended the hospital sometime between 11.00pm and 11.30pm. If Dr Tham first telephoned Ms Lai at approximately 9.30pm why it took Ms Lai some 1½ hours to get to the hospital is unclear.

4.4 Issue 4: Inadequate fluid resuscitation

83. Professor Cashin gave evidence that the 45 minutes between when Mr Brown's blood pressure was first noticed to have dropped to "*...a level of 73 on 52 at about 1930 hours"* to when he was first provided with fluid support was not unreasonable but a fraction slow and achievable within 15 minutes.

---

[87] T.183-184, 187.

[88] T.190.

84. Professor Cashin gave evidence that Ms Lai should have been called immediately at 8.30pm after initial resuscitation procedures had been performed rather than at 9.30pm.[89]

85. Dr Pham agreed with Professor's proposition that Mr Brown had not received adequate fluid resuscitation in the early phases of his bleeding.[90]

86. Dr Evans gave evidence that as at about midnight when she saw him in the ICU Mr Brown had not had adequate fluid resuscitation Dr Evans' evidence was that at that time she believed that he had, although she could not recall whether she had undertaken the relevant calculations herself, rather she thought it likely that she had relied on the what she had been told. Dr Evans gave evidence that had she known of the inadequate fluid resuscitation she would not have then diagnosed cardiogenic shock, as she did as the most likely cause of his condition.[91]

87. I accept Professor Cashin's, Dr Evans' and Dr Pham's evidence and find that Mr Brown did not receive adequate fluid resuscitation in the early phases of his bleeding

4.5 Issue 5: The role of the port examination by Ms Lai

88. Ms Lai described opening Mr Brown's epigastric wound (undoing the stiches) and putting her finger into Mr Brown's peritoneal cavity to assess the wound and found no sign of active bleeding.[92] From her evidence Ms Lai's memory of precisely what she did was a little unclear – she first refers to Mr Brown sitting up at 45 degrees when she probed the wound although when asked if any blood from any internal bleeding would have then been pooling in the pelvis, she said that Mr Brown was intubated and lying flat when she undertook this procedure.[93] Ms Lai's evidence was that probing the wound was a very insensitive test and that not finding active bleeding did not help her assess whether Mr Brown was bleeding internally but, she said, had she seen active bleeding this would have been informative.

[89] T.756 -757.

[90] T.102.

[91] T.458-461.

[92] T.237-238.

[93] T.238.

Dr Keeling asked Ms Lai about this evidence being contrary to the content of one of her written statements which referred to:

> "*...no evidence of significant bleeding when the laparoscopic port site was explored indicating that at the time of examination there was no active bleeding.*"[94]

Ms Lai resiled from this assertion in her statement in favour of her viva voce evidence.[95]

4.6 Issue 6: Preference for the diagnosis of cardiogenic, and not hypovolaemic, shock

4.6(a) Dr Pham, ICU registrar

89. Dr Pham was the 'overnight registrar' in the ICU on 26 – 27 March 2013 and drew a written statement dated 9 May 2018 which was tendered. Dr Pham gave viva voce evidence and sought to make a few changes to his written statement.[96]

90. Dr Pham explained that when he came on-shift he took-over looking after Mr Brown from the evening registrar, Dr Kubicki, from whom he received a 'hand-over' and who he thought left the hospital shortly after 10.30pm.

91. Dr Pham gave evidence of Mr Brown having been in the ICU when he came on shift and of having first met Mr Brown shortly after 10.30pm.[97] Dr Pham gave evidence of his working diagnosis of Mr Brown's hypotension and chest pain as internal bleeding (on the basis that Mr Brown was post-operative) and of chest pain, possibly a myocardial infarct which itself he thought could possibly have been caused by blood loss or a heart attack due to the stress of the Procedure.[98]

    Dr Pham gave evidence of maintaining this view throughout the night until about 2.00am when he considered that Mr Brown was suffering from cardiogenic shock.[99]

---

[94] T.240.

[95] T.241-242.

[96] T.50-51.

[97] T.54.

[98] T.82.

[99] T.55., T.82.

92. Dr Pham's evidence of what influenced this opinion about the cause of Mr Brown's hypotension a sometimes a little difficult to follow.[100]

93. Dr Pham gave evidence of having spoken to Dr French, the 'on-call' intensive care consultant, on the telephone four times between 11.30pm and 6.00am. He told Dr French that Mr Brown had chest pain, increasing noradrenaline requirements, and decreasing haemoglobin. Dr Pham also recalled discussing his concern that Mr Brown was bleeding as a cause for his chest pain and so had cross-matched two units of blood and had commenced the first one.

94. Dr Pham gave evidence that, during the telephone call at about 11.30pm, Dr French told him that potentially Mr Brown "*...was more cardiogenic, that I should continue the first unit of blood….and facilitate Mr Brown being intubated.".*[101] Dr Pham gave evidence that Dr French did not tell him that Mr Brown ought to be returned to theatre or the surgeon contacted.

    Dr Pham gave evidence that the surgeons were:

    > *"…already coming in, already involved. Ah, already had worked up the patient from that point of view. And in fact, going back to my initial correction of my statement, Dr Betty Lai was potentially on her way in already.*"[102]

95. Dr Pham gave evidence that the only symptom that Mr Brown had that was consistent solely with acute myocardial infarction was chest pain and that Mr Brown was also diaphoretic, pale, and had increasing adrenaline requirements all of which were, he said, consistent with acute myocardial infarction or blood loss.[103] Dr Pham said that Mr Brown's ECG results did not indicate myocardial infarction.

96. Dr Pham gave evidence that Mr Brown's troponin level was normal at about 11.30pm and much higher than normal at 2.00am.

    However, this rise didn't affect his diagnosis or help him decide whether Mr Brown was bleeding internally or was having a myocardial infarction.[104]

---

[100] Particularly T.79-86.

[101] T.86-87.

[102] T.87.

[103] T.87.

[104] T.88-89.

97. Dr Pham gave evidence that the appropriate treatment for Mr Brown bleeding into his belly was "*...exploration in theatre...*" and that he maintained that view throughout the night until about 2.00am.*"*.[105]

98. After some apparent uncertainty, Dr Pham gave evidence that as at 2.00am he considered it unlikely that Mr Brown was bleeding into his belly[106] although he also gave evidence that at this time, "*I was still concerned about bleed to be honest.*"[107]

99. Dr Pham's evidence was that even though he said there was a consensus between him and Ms Lai at about 2.00am that Mr Brown's condition was unlikely to be the result of bleeding that internal bleeding remained one of his higher considerations[108] and indeed the most likely cause of Mr Brown's condition.[109] Dr Pham explained that shortly after midnight Ms Lai felt that Mr Brown's abdominal examination wasn't in keeping with an active bleed, that the decision was not to go back to theatre. Dr Pham also gave evidence that at 2.00am he and Ms Lai had reviewed Mr Brown again and that given the stability of the haemoglobin and his profound noradrenaline and adrenaline requirements, he and Ms Lai didn't feel that bleeding was in keeping with those parameters.[110]

100. Dr Pham gave evidence that after a review of the transthoracic echocardiogram ("**ECG**") and other results at about 2.00am by Dr Sugumar[111] and a cardiologist, he became aware that Dr Sugumar considered that Mr Brown hadn't had a 'primary cardiac event'.[112]

101. Dr Pham set-out the parties involved with Mr Brown's care and their designations. He explained that in the absence of consensus within an area of speciality, the consultant's decision is determinative. He also explained that there was no hierarchy of decision-making across speciality areas.

---

[105] T.82.

[106] T.83.

[107] T.91.

[108] T.92.

[109] T.92-93.

[110] T.97.

[111] Who undertook the transthoracic echocardiogram and reviewed the results.

[112] T.90-91.

102. Dr Pham provided the *dramatis personae* as:

(a) Intensive Care	Consultant - Dr French	Registrar - Dr Pham
(b) Anaesthetics	Consultant - Dr Evans	
(c) General Surgery	Consultant – Professor Jones, Fellow - Ms Lai, Registrar Dr Tham[113]	

4.6(b) Ms Juin Min Betty Lai surgeon

103. Ms Lai gave evidence that when first telephoned by Dr Tham at about 9.30pm she was of the view that Mr Brown was bleeding internally and instructed Dr Tham to make preparations for Mr Brown to be taken back into surgery. Ms Lai gave evidence that she then immediately[114] telephoned Professor Jones and his view coincided with hers in so far as diagnosis and necessary treatment were concerned. Ms Lai gave evidence that she left for the hospital shortly after speaking with Professor Jones.

104. Ms Lai gave evidence of having first spoken to Dr Evans shortly after she arrived at the Hospital.[115] Ms Lai gave evidence that when she reviewed Mr Brown in the ICU she did not review what fluids Mr Brown had been provided with because she said fluid resuscitation was a matter for those in ICU looking after Mr Brown. She was satisfied that he had been adequately resuscitated.[116]

105. Ms Lai gave evidence that after arriving at the Hospital, but before she spoke to Dr Evans, her opinion was that Mr Brown was bleeding internally,[117] and after examining him, but before she spoke to Dr Evans, that she saw no evidence or clinical signs of cardiac failure.[118]

---

[113] T.93-95.

[114] T.181.

[115] T.195-196.

[116] T.203, 213, 215, 230, 239.

[117] T.230.

[118] T.231.

Ms Lai gave evidence that after she had reviewed Mr Brown in ICU she spoke to Dr Evans who told her that Mr Brown was too sick to go back into theatre and that if she took him into theatre that he would die.[119]

106. Ms Lai gave evidence that she recalled discussing the cause of Mr Brown's deterioration with Dr Evans and although she could not recall Dr Evans' words her interpretation of what Dr Evans said was that unless Ms Lai was 100% certain that intraabdominal bleeding was the cause, the patient would die on the table and that Dr Evans, would like to exclude a cardiac cause.

107. Ms Lai gave evidence that she recalled Dr Evans looking at Mr Brown's observations charts before this discussion, "*…looking at all the numbers, including the fluids, um noradrenaline requirement, haemoglobin, ABG, a full blood count …"*[120]

108. Ms Lai gave evidence that as well as Dr Evans, this discussion involved her, Ms Lai's Registrar, someone from ICU and perhaps an anaesthetic registrar.[121] Dr Evans said that a cardiac cause needed to be excluded although Dr Evans didn't set out her reasoning.[122] Ms Lai gave evidence that she knew that Dr Evans had been involved in Mr Brown's anaesthesia when the cholecystectomy was performed and was "*…probably more aware of the physiology of the patient*."[123]

109. Ms Lai gave evidence that she recalled Dr Evans telling her that if the cause of Mr Brown's deterioration was bleeding, if he was not taken back into surgery he would die.[124] When asked about how she, as the surgeon, weighed up Dr Evans telling her that if Mr Brown was suffering from cardiogenic shock and he is taken back into surgery that he will die, versus if he is bleeding internally and he is not taken back into surgery he will die, and whether she, Ms Lai, allowed Dr Evans to prevail because she was the anaesthetist.[125]

---

[119] T.240.

[120] T.244.

[121] T.242 -243.

[122] T.244.

[123] T.245.

[124] T246.

[125] T.247.

Ms Lai responded that while she thought that surgery was the only option to exclude internal bleeding she also thought that Dr Evans raising the possibility of cardiac failure and Mr Brown's noradrenaline requirements was not an unreasonable thought.

She said that she was confused by Mr Brown not mounting a tachycardic response which she explained is usually the first response of anyone who is in hypervolemic shock.[126]

110. Ms Lai said that she wanted to "*…exclude making sure that there is no cardiogenic shock.*".[127] Perhaps summing up the difficulties Ms Lai faced she gave evidence that:

> "*I recall in my head that if I took this person back to theatre and he didn't have a bleed and he had a cardiogenic shock and he die on table and I refuse to take the advice of the senior anaesthetist than I'll be in big trouble*"[128]

111. Ms Lai gave evidence that while she did not agree that Mr Brown should have an ECG rather than going back into surgery she gave evidence that she did not disagree.[129] She explained that she spoke to Professor Jones on the telephone:

> "*I told him the clinical picture and I told him the dilemma and I told him the discussion and Professor Jones agreed…..to perform the echocardiogram and to delay theatre and my thought is that this is a very, very unusual situation and in my many years of clinical practice I think once a patient hit ICU this was very, very, very, very unusual situation when we want to operate and we were told it's a very unusual situation. I don't know what was the reason behind Dr French and Dr Evans, but it is a very unusual situation. A lot of the time we were the persons who say no. No, we're not bringing dying patient to theatre, but a lot of the time we were asked to assist to bring the patient to theatre to find out cause of deterioration.*[130]

112. Dr Keeling asked Ms Lai why she was so worried about Mr Brown dying on the table, compared with his risk of dying from bleeding?

> "*Why did you give preference to the risk of him dying on the table?*

[126] T.247.

[127] T.247-248.

[128] T.250.

[129] T255.

[130] T.256-257.

Ms Lai replied:

> "*I guess because of two things, well more than two things. First of all, I was the operating surgeon and I was confident about haemostasis during the surgery and not seeing that with that confidence, there's never going to be bleeding because we know that complications happen, regardless of how careful you are. So that's one. So I think I was fairly confident that the surgery I performed a few hours before has secured all the major vessel and I have performed a routine surgery.*"[131]

113. Ms Lai gave evidence that she had not considered cardiogenic shock as a diagnosis before she first spoke to Dr Evans in the ICU[132] and that cardiogenic shock was not one of her differential diagnoses because there were no clinical features consistent with it.[133]

114. Ms Lai agreed that at about 2.00am after the ECG had been conducted that she understood that it was not in any way abnormal but that the result was not helpful,[134] that there were no abnormalities to require an urgent 'cath lab' and intraarterial balloon pump.[135] Ms Lai agreed that the ECG would have conveyed to her that Mr Brown was not then in cardiogenic shock but that what the cardiology registrar told her was not as clear as the note.[136] Ms Lai agreed that at 2.00am she considered that Mr Brown was more likely to have cardiogenic shock[137] and that if he had been taken to the operating theatre the "*I think his survival will be reasonable*."[138] .

115. Ms Lai went home from the hospital at about 2.00am[139] although remained involved in Mr Brown's care and at 3.45am considered that Mr Brown was bleeding into his abdomen.[140]

---

[131] T.265.

[132] T.276-277.

[133] T.280.

[134] T.289.

[135] T290.

[136] T.293-294.

[137] T.306.

[138] T.307-308.

[139] T.228.

[140] T.229.

4.6(c) Professor Trevor Jones, general surgeon

116. As at 26 March 2013 Professor Jones was the clinical services director of the Western Hospital, consultant surgeon and supervising Ms Lai's training.

117. Professor Jones explained that as at March 2013 Ms Lai was a fellow of the Royal Australasian College of Surgeons and undertaking further surgical training.

Professor Jones said that he would have expected Ms Lai to consult him regarding any very unwell patients.

118. Professor Jones was very clear that when Ms Lai first rang him at, he thought, about 8.00pm 26 March 2013 that "…*there was no doubt about what our diagnosis was or what the course of action should be.*"[141]. Professor Jones agreed that he told Ms Lai to 'get on with it' and asked her if she was happy to go ahead; he gave evidence that she said that she was. Professor Jones made it clear that he had a memory of being involved with Mr Brown's treatment and conceded that he may have been wrong about the time when Ms Lai first telephoned him. Professor Jones was clear however that during that first telephone call, Ms Lai outlined Mr Brown's clinical condition and it was obvious to him, and he said to Ms Lai that Mr Brown was bleeding and that the correct course of management was a laparotomy to stop the bleeding. Professor Jones agreed that he was mistaken in his written statement where he referred to waiting for an "…*ultrasound of the*…" and that that wasn't something he recalled happening.

119. Professor Jones gave evidence that the second time he spoke to Ms Lai was just before midnight when Ms Lai told him that there had been a number of alternative diagnoses "…*floating around*" with which he said that he didn't agree, including of a primary cardiac event or sepsis. Professor Jones gave evidence that he and Ms Lai discussed those diagnoses, and he was "…*actually quite angry because we were losing the game.*". Professor Jones gave evidence that whilst he didn't agree that Mr Brown was in cardiogenic shock, he did agree with the concept of ruling it out and agreed to postpone surgery until an ECG was undertaken, although he said that he didn't really seriously consider cardiogenic shock as a possibility.[142]

[141] T.634.

[142] T.640.

Professor Jones said that he relied on the information provided to him by Ms Lai, the only person he spoke to on the night about Mr Brown. Professor Jones gave evidence that he knew that Mr Brown had some indicators of possible cardiac damage; his weight, a history of cardiac problems and he was a smoker.[143]

120. When asked if Mr Brown needed an operation at midnight Professor Jones said '*No*,' Mr Brown needed the operation at 8.00pm.[144] Professor Jones gave evidence that there was no reason, other than concerns of other doctors and Mr Brown's risk factors for cardiac disease that he did not insist on Mr Brown being taken into surgery rather than await an echocardiogram ("**ECG**").[145]

121. Professor Jones gave evidence that when at about midnight he again spoke to Ms Lai he agreed to postpone surgery until an ECG had been undertaken because he was concerned about indirect indicators of cardiac damage,[146] although Professor Jones still believed that Mr Brown was bleeding and that he had needed an operation at 8.00pm. When asked why then he agreed at midnight to postpone surgery he said:

> "*I think because the – of the concerns of the others ah in his care that perhaps we were missing something. Perhaps we were as I stated a few minutes ago. Ah the diagnosis was clinical and hearing all these alternatives um, you know, raises doubt and it was – it would have been a good thing to exclude these doubts although in my mind I've seen enough sick patients. I know when they're bleeding and when they are not, he was bleeding.*"[147]

122. Professor Jones was very frank in his evidence particularly when he said that he certainly should have spoken to the intensive care physician Dr French and to Dr Evans on the 26th or 27th. Professor Jones said that had it been just up to him he would have instructed Ms Lai to take Mr Brown to theatre for surgery at midnight although "…*not with as much enthusiasm as I did at 8 o'clock because I thought that the intervening four hours had significantly reduced his chance of recovery.*"

---

[143] T.641.

[144] A reference to the time when he thought that Ms Lai first telephoned him.

[145] T.644.

[146] T.641.

[147] T.642.

When asked to "…*put yourself back in the position at midnight is there a basis, apart from the concerns of other doctors and his risk factors for cardiac disease …is there a basis on which you can tell His Honour that it was reasonable to agree to an echocardiogram instead of insisting that Mr Brown was taken back to the theatre*?" Professor Jones simply said "*No.*" [148]

123. Professor Jones gave evidence that he could not precisely recall what Ms Lai told him when she again called him at about 2.00am on the 27 March 2013. He was unsure if Ms Lai told him what the results of the ECG but agreed that the results in the medical record were to the effect that the cardiologist recommended that Mr Brown's abdomen be looked at for the cause of his illness. Professor Jones gave evidence that "…*nothing had been done.*" and that Mr Brown's condition had deteriorated and he thought that "…*we were missing the boat*" and reiterated that given subsequent events they should have operated on him at 8.00pm.[149]

124. Dr Keeling put to him that Dr French gave evidence to the effect that he, Dr French, had been told by Dr Pham that "…*the surgical opinion… was either that he was not bleeding or that it was unlikely that he was bleeding*."[150] Professor Jones made clear that that was not his opinion.[151] I note here evidence that at 2.00am Ms Lai considered that cardiogenic shock was still a possibility[152] and that she then considered that Mr Brown was more likely to have cardiogenic shock.,[153]

125. Professor Jones gave evidence that he was aware of Mr Brown receiving 'massive doses' of noradrenaline and adrenaline and that he did not order Mr Brown into surgery because "…*we were talking about him not surviving at midnight, certainly at 2.00am he was considerably worse.*" Professor Jones gave evidence that any surgery would have been futile, and taking into account that he thought then that Mr Brown was going to die, it was inappropriate to undertake futile surgery.

---

[148] T.644.

[149] T.634. The time that he thought the Ms Lai had first called him.

[150] T.645.

[151] T.647.

[152] T.300.

[153] T.306.

126. Professor Jones agreed that his understanding as at about 2.00am was not that Mr Brown's noradrenaline had been turned down from 100 micrograms per minute to 30 micrograms per minute, rather it was that at this time Mr Brown was receiving massive doses of noradrenaline and adrenaline.[154] Professor Jones said that at about 2.00am he did not tell Ms Lai to take Mr Brown into theatre because "…*it's a terrible thing but I think we missed the boat. He is continuing to deteriorate.*"[155]

127. Dr Keeling asked one of the main questions at the root of Mr Brown's death,

> "*Who was in charge? Which doctor or doctors were making the definitive decisions about Mr Brown's care?"*

Continuing, Professor Jones replied:

> "*In actual practise a lot of people were giving their opinions. Ultimately the decision, I believe was mine, but it gets a bit blurred. If a patient of a surgeon goes to intensive care, for example, the intensivists tend to usurp that responsibility and I don't think that that is necessarily a good thing. They can certainly contribute but they shouldn't usurp the responsibility."* [156]

128. Professor Jones was asked more questions about who the ultimate decision maker would be if a surgeon wanted to operate and the anaesthetist thought such an operation was too dangerous for the patient. Professor Jones said that had such circumstances applied in Mr Brown's case he would have gone into the Hospital.[157] As Mr Harper pointed out in an objection that was not the case in this matter.

129. Dr Keeling asked Professor Jones why he didn't go into the Hospital at midnight to which Professor Jones replied:

> "*Ah, I think we ought to just clarify something, a lot of the facts that you're bringing out now were not available to me at the time, they weren't available until I was reading you know, what Craig French thought or what Bronwen Evans thought…*

---

[154] T.646.

[155] T.646.

[156] T.648.

[157] T.651.

I , I was not fed this information at the time, it all came through Ms Lai. Um, I mean, that issue is why didn't I go in, and that was the issue that Paul…..Cashin also raised, and I would've raised if ah, situations were different."[158]

130. Dr Keeling pursued this issue with Professor Jones and he responded:

"…She (Ms Lai) didn't suggest to me that I come into the hospital. If she had I certainly would've, and that is my custom, that's what I do. Um, If Bronwen Evans had suggested that I go into the hospital and Craig French had suggested that I come in, I certainly would've done that, but these were not raised at the time. And I was there trying to balance all these options and at midnight I honestly didn't think that I, I could've offered anything else."[159]

131. Professor Jones' position is understandable, although in the circumstances given:

(a) His initial opinion right from when Ms Lai first called him was that Mr Brown was bleeding internally and this opinion never changed.

(b) His knowledge of the complexity of Mr Brown's presentation.

(c) His knowledge of the other specialist held opinions based on their first-hand knowledge.

(d) Mr Brown's deteriorating condition between when Ms Lai first called him and at midnight.

(e) Professor Jones' knowledge of the potential fatal consequences if Mr Brown was bleeding internally.

(f) His concern at midnight that "*…we were missing the boat.*"[160] and "*…it was very likely that we had missed the boat.".*[161]

perhaps Professor Jones ought not have waited for someone to suggest that he go to the Hospital.

132. Professor Jones agreed with propositions Dr Keeling put to him from Professor Cashin's expert report that:

---

[158] T.651.

[159] T.651-652.

[160] T.634.

[161] T.653.

(a) It is not unusual to see tachycardia not develop in patients until they have lost up to 25% of their blood volume from the circulation.

(b) A further confounding factor was a lack of vigorous, aggressive fluid resuscitation and the late or delayed haemoglobin drop. Haemoglobin drop may have occurred if the appropriate aggressive fluid resuscitation occurred.

(c) Decision making was of a poor quality and very confused, even with some slightly unusual and confounding factors.

(d) Given evidence available on the night, cardiogenic shock would seem unlikely.

(e) A confounding factor in this case was the lack – likely the lack of an early significant tachycardia.

(f) The transfer to ICU was appropriate. A 56-year-old man, four hours after an operation with known haemorrhagic complication with no clinical signs of left or right cardiac failure, with no chest pain albeit that there was some chest pain and no known ischaemic heart disease despite his significant risk factors in this clinical scenario is bleeding until proven otherwise.

(g) Most surgeons in this situation would be looking at an immediate return to theatre.

(h) A very good case could be made to investigate no further at this point and return immediately to theatre, so as to delay risks and end organ and vital organ damage.

(i) In the early phases of his deterioration a window of opportunity existed.

(j) Professor Cashin could find no supportive evidence in the notes to suggest a working diagnosis of primary cardiac dysfunction over and above the diagnosis of post-operative haemorrhage.

(k) Professor Cashin did not feel that the diagnosis of primary cardiogenic shock was a reasonable one.

(l) The management of Mr Brown's post-operative haemorrhage leading to his death was suboptimal and his death was potentially preventable.[162]

[162] T.658.

133. Professor Jones disagreed with Professor Cashin that following the echocardiogram that the chances of a successful surgical repair of the internal bleeding would have remained high in the order of 70-80 % but said that in his view this would have been in the order of 20%.[163] Professor Jones gave evidence that the chances of successful repair at midnight were better than 50%.[164]

134. Professor Jones agreed with Associate Professor David Brewster's[165] report that there appeared to have been a fixation bias of multiple senior and junior medical staff on the incorrect assumptions that there was a cardiac cause primarily responsible for Mr Brown's severe shock. Professor Jones gave evidence that he didn't know where the opinion that Mr Brown didn't have a significant haemorrhage that required urgent return to the operating theatre came from. He remained of the view that Mr Brown was bleeding. Notwithstanding this, he thought at about midnight that Mr Brown would survive for about the hour it would take to undertake the echocardiogram and still be able to go to theatre if needed afterward.[166] Professor Jones agreed with Associate Professor Brewster's proposition that the diagnosis of hypovolemic shock could have been made given that there did not appear to be substantial objective evidence for cardiogenic shock, chest pain (amongst other things) is known to occur during hypovolaemic shock and it is known that a drop in serum haemoglobin is not necessarily seen early in hypovolaemic shock.[167]

135. In answer to Ms Ellis' question about when there are changes in decision making in what constitutes or ought to constitute the trigger for a consultant such as him or Dr French to make a 'face to face' assessment of a patient Professor Jones said that he should have gone into the hospital at that point.[168] Professor Jones agreed with Ms Ellis' proposition that when, there are disagreements during telephone discussions between senior medical staff, and consultants about a patient's condition and treatment, that disagreement might be a trigger for one or more of the consultants to go into the hospital.

[163] T.664.

[164] T.665.

[165] Intensivist & Anaesthetist.

[166] T.667-668.

[167] T.670.

[168] T.672.

Allowing the doctor to examine the patient themselves or discuss treatment options directly, face to face, with other senior treating staff. Professor Jones explained that being asked to go into the hospital was one of the triggers for him going in – the main trigger. [169] It is to be borne in mind however that awaiting the result of the echocardiogram rather than taking Mr Brown back into surgery was at least accepted by Professor Jones, Dr Evans, Dr French and Ms Lai and that when the results became known shortly after 2.00am Professor Jones thought that surgery would be futile. Ms Lai thought that the results were equivocal, that Mr Brown may have been suffering from cardiogenic shock and Dr French thought Mr Brown was going to die in the short term.

136. Dr Keeling put to Professor Jones a number of conclusions set out in Professor Cashin's Report:

(a) With which Professor Jones agreed including:

(i) Mr Brown exhibited many of the symptoms of hypovolemic shock in the early stages when he was on the ward including that he was sweaty, he was faint, and he had decreased blood pressure.

(ii) It is not unusual for patients bleeding (as Mr Brown was) not to become tachycardic until they have lost up to 25% of their blood volume.

(iii) The transfer of Mr Brown from the ward to ICU after an operation with known haemorrhagic complication with no clinical signs of left or right cardiac failure four hours after surgery was appropriate given that he was 56 years old. Such a patient with no known ischaemic heart disease despite his significant risk factors in this clinical scenario is bleeding till proven otherwise.

(iv) With Professor Cashin's view that most surgeons in this situation would be looking at an immediate return to theatre.

(v) A very good case could be made to investigate no further at this point and return immediately to theatre as to delay risks and end organ and vital organ damage.

(vi) The decision-making process in this case was of poor quality and very confused even with some slightly unusual and confounding factors.

---

[169] T.672-673.

(vii) Mr Brown did not exhibit any signs beyond shock, no signs of right or left hear failure, no troponin rise in the early and reversible stages, no pulmonary oedema on chest x-ray and no worrying change on a transthoracic echocardiogram. Given this body of evidence cardiogenic shock would seem unlikely.

(viii) In relation to a window of opportunity for laparotomy it existed in the early phases of Mr Brown's deterioration.

(ix) There is no supportive evidence in the notes to suggest a working diagnosis of primary cardiac dysfunction over and above the working diagnosis of post-operative haemorrhage.

(x) On balance, the diagnosis of cardiogenic shock was not reasonable.

(xi) Recognising the benefit of hindsight, the management of Mr Brown's post-operative haemorrhage leading to his death was sub-optimal and his death was potentially preventable.

Professor Jones added that this was the case "…*if the right action had occurred at the right time.*".[170]

(b) With which Professor Jones disagreed:

(i) There was a window of opportunity at 2.00am.

Professor Jones said that in his view Mr Brown's clinical condition prevented an opportunity at that time.

(ii) His decision-making was coloured by what Ms Lai told him about what she was told. Professor Jones considered this '*a little bit unkind to Ms Lai'* because he, felt that he was well informed by her and nothing came out subsequently leading him to disagree with that.[171]

---

[170] T.663-664.

[171] T.663. To some degree that may not be completely consistent with what Professor Jones said when Dr Keeling asked him about why he didn't go into the hospital during the night of 26 March 2013 as set out in paragraph 128 above.

4.6(d) Dr Bronwen Evans, anaesthetist

137. Dr Evans gave evidence that as at 26 March 2013 she was a consultant anaesthetist and that she was then supervising Dr Long, the anaesthetist during Mr Brown's cholecystectomy.

138. Dr Keeling asked Dr Evans questions about Mr Brown having had an episode of bradycardia 8 days before the cholecystectomy on 18 March 2013, after the ERCP. Dr Evans agreed that he had such an episode and that it lasted several hours[172] but that the it did not necessitate Mr Brown having further investigation before he was anaesthetised on 26 March 2013.[173]

139. Dr Evans gave evidence that at some time in the evening of 26 March, possibly at about 9.30pm, she received a telephone call from Ms Lai or Dr Tham telling her of a plan to return Mr Brown to the operating theatre. Dr Evans believed that she was told that Mr Brown had had a laparoscopic cholecystectomy earlier that day and that he may have been bleeding and was likely scheduled for return to theatre.[174] Dr Evans gave evidence that, in such circumstances, she would expect an anaesthetist to assess a patient such as Mr Brown as soon as they were free to do so.[175]

140. Dr Evans described the procedure by which an operating theatre is booked. The booking is made by the surgical registrar who would also contact an anaesthetist. Dr Evans had no recollection of a theatre having been booked for Mr Brown.[176]

141. Dr Evans gave evidence of having seen Mr Brown when he was in the ICU with the PACU chart and the operation notes at approximately 11.40pm.[177] It is at least likely that this was the pre-surgery anaesthetic assessment Dr Evans earlier referred to. Dr Evans gave evidence that that she did not look at Mr Brown's central venous pressure but should have, although she said, somewhat inconsistently, that she was uncertain whether her having seen it would have made any difference to her opinion.

---

[172] T.435.

[173] T.435-436.

[174] T.444.

[175] T.446.

[176] T.447-448.

[177] T.449-450.

Dr Evans gave evidence the central venous pressure readings recorded made it seem unlikely at 11.00pm that the right side of Mr Brown's heart was failing, and that these readings were an important consideration when determining whether Mr Brown was suffering from cardiogenic shock or haemorrhaging. Dr Evans gave evidence that she was concerned about a lack of tachycardia, usually seen as a result of bleeding, and a drop in blood pressure, high inotrope requirement, stability of haemoglobin, severe sleep apnoea with some right heart impairment or failure – a cardiac issue. Dr Evans did not take into account Mr Brown's previous bradycardia in response to undergoing the ERCP on 18 March 2013.

142. Dr Evans agreed with Dr Keeling's proposition that looking at the central venous pressure was critical to an assessment of whether Mr Brown was suffering a right heart failure. Dr Evans said that a diagnosis of cardiogenic shock was not supportable on the basis of Mr Brown's central venous pressure readings as recorded in his medical file. [178]

143. Dr Evans gave evidence that an increasing noradrenaline infusion does not of itself indicate that there must be a cardiac issue and that she had considered the rate of noradrenaline infusion at about midnight to have been an indication of the severity of how unwell Mr Brown then was, as well as the aetiology of his illness. Dr Evans went on to correct this position and stated that she now considered the noradrenaline infusion rate to have been an indication only of how unwell he was and not the aetiology of his illness. [179]

144. Dr Evans was frank in her assessment of her own conduct and gave evidence that she was concerned that Mr Brown was bleeding internally and may die, as well as being concerned that he had or may have significant heart failure and may die if anesthetised in order to deal with possible internal bleeding.

145. Dr Evans agreed with Dr Keeling's proposition that if Mr Brown was bleeding internally that he would die without an operation.

---

[178] T.452-454.

[179] T.461.

146. Although not being sure of the words she used, that she accepted that the 'message' that she conveyed to Ms Lai was that bearing in mind her concern about Mr Brown suffering cardiogenic shock, that if he was taken to theatre, that he would die from the anaesthetic – she was very concerned that he would die.[180]

147. Dr Keeling asked Dr Evans about Mr Brown's clinical picture at midnight in the ICU. Dr Evans agreed that Mr Brown had hypotension but that in and of itself, it did not indicate whether it was caused by a cardiac issue or bleeding. Dr Evans gave evidence that there were other matters that caused her to be concerned about right heart failure. That Mr Brown's haemoglobin level "*…took away weight from bleeding as a cause.*'. [181] Dr Evans gave evidence that she did not compare ECG evidence of right bundle branch block with earlier ECG results to establish whether prior to the surgery Mr Brown had the same signs of right bundle branch block then as earlier. [182] Dr Evans gave evidence that a normal troponin level at 10.30pm spoke against a myocardial infarction although she explained there can be delay in that elevation. Dr Evans gave evidence of Mr Brown being acidotic, having a raised lactic acid level, at midnight didn't differentiate the cause of the lactic acidosis. Dr Evans drew comfort from her sense of what she said that Ms Lai told her about bleeding being less likely after she, Ms Lai, examined a surgical port wound. Bearing in mind Ms Lai's evidence that the result of her examination of the surgical port wound provided no evidence supporting the contention that Mr Brown was less likely to be bleeding. How such evidence informed the basis of Dr Evans' 'comfort', is at best unclear.

148. Dr Evans gave evidence that Ms Lai told her that she thought that Mr Brown was bleeding and ought to be returned to the operating theatre. Dr Evans said that Ms Lai was always concerned that Mr Brown was bleeding and wished to return him to theatre and that she was very concerned about the trajectory of the investigation. Dr Evans gave evidence that at the time, her understanding of her memory, is that:

> "*I'd preference cardiogenic because there seemed to be, it seemed to be the most a highly possible cause of his shock and its really as I sit here today I can't offer*

[180] T.469-470.

[181] T.476-477.

[182] T.478.

a very cogent explanation. I wish that I could, I just know that that was my thought at the time".[183]

149. Dr Evans agreed that about 2.00am on 27 March 2013 after the ECG that the 'cardiology team' considered it unlikely that Mr Brown had a major ischemic cardiac event and that she knew this, and further that an abdominal cause - bleeding - was more likely than a cardiac one. Dr Evans gave evidence that despite this information she continued to believe that Mr Brown had cardiogenic shock rather than bleeding on the basis that the cardiology investigations were difficult to do, there was a mildly moderate increase in the size of the right ventricle and when Ms Lai examined the port site she saw no bleeding.[184]

150. Dr Evans gave evidence that she did not then consider whether any cardiac dysfunction that she perceived may have been caused by Mr Brown having been bleeding, but that if she had considered this, she may have reached the view that bleeding could have caused the cardiac signs seen on the ECG.[185]

151. Dr Evans gave evidence that she believed that as at 2.00am on 27 March that the presence of bleeding was unsupported by the examination of the wound site, and that in any case it may then have been futile to undertake surgery.[186] Dr Evans gave evidence that she left the Hospital shortly afterward and left Mr Brown in the care of Dr French.

152. Dr Evans also gave evidence of having spoken to 'Hannah', the overnight anaesthetic registrar at about 6.10am, who had been asked to review Mr Brown regarding the possibility of a laparotomy given a drop in haemoglobin. Dr Evans agreed that it was likely that she told Hannah that the drop was largely due to hemodilution and should be treated with red blood cells and fresh frozen plasma. Dr Evans agreed that the drop in haemoglobin was significant and said that she was uncertain why that wouldn't immediately [187] have suggested to her that Mr Brown was bleeding.[188]

---

[183] T.483.

[184] T.487.

[185] T.488.

[186] T.489.

[187] T.556.

[188] T.494.

153. Dr Evans agreed with various parts of Professor Cashin's report which Dr Keeling put to her including:

(a) The hallmarks of a post-operative haemorrhage leading to hypovolaemia and shock are the same in any blood loss situation but often masked by the fact that it is hidden in the body cavity.[189]

(b) What the hallmarks of hypovolaemic shock were and that Mr Brown exhibited these signs in the early stages of him being on the ward.[190]

(c) It is not unusual to fail to see tachycardia in patients until they have lost 25% of their blood and when Dr Evans was looking at Mr Brown at approximately 7.30pm until before midnight he had not developed tachycardia because he hadn't lost 30% - 50% of his blood. Dr Evans gave evidence that she did not think that she took this into account at midnight and 2.00am.[191]

(d) Mr Brown was a 56-year-old man, four hours after an operation with known haemorrhagic complications and no clinical signs of left or right cardiac failure even taking into account chest pain, should be presumed to have been bleeding until proven otherwise. When giving evidence Dr Evans said that she now believed that, but did not believe it as at March 2013, because of the then relative stability of Mr Brown's haemoglobin, lack of tachycardia and the high inotrope requirements.[192]

(e) Haemoglobin levels will be seen to drop in acute bleeding in the early to intermediate stage until fluid resuscitation occurs, bringing the intravascular volume up to normal.[193]

(f) Mr Brown had a lack of vigorous aggressive fluid resuscitation.[194]

(g) Dr Evans agreed that her own management was very confused, and she 'now' sees that it was poor quality.[195]

---

[189] T.500.

[190] T.500-501.

[191] T.501.

[192] T.501-502.

[193] T.503.

[194] T.502-503.

[195] T503-504.

(h) Mr Brown did not exhibit any sign of cardiogenic shock other than chest pain.[196]

(i) That the body of evidence available as at March 2013 was that cardiogenic shock was unlikely. Dr Evans agreed with this proposition 'now'.[197]

(j) Blood tests were used as a decision-making tool to rule out bleeding when in the setting of inadequate fluid resuscitation, they could not be used to do so.

154. When asked whether there was a basis on which she could say that she wouldn't have agreed with the proposition that as at 26 March 2013, given the body of evidence then available, that cardiogenic shock was unlikely, Dr Evans said:

> "I*t's very difficult to divorce what I know now from what I think I knew then. I can only offer that at the time I thought what I did, um, and I thought I was supported in that by my Intensive Care Unit colleagues, including Dr French. Um, and there was no strong argument being put to me to the contrary and so I believed I had support and was not failing in my duty of care to Mr Brown."*[198]

155. Dr Evans gave evidence that she held a very strong view that Mr Brown had cardiogenic shock, not bleeding, and this was the primary cause of his 'illness'; that she was not challenged in her thinking and that it was possible that Ms Lai and Dr Pham as junior doctors may have felt that they were unable to challenge her.[199]

156. Similar to Professor Jones, Dr Evans was, if I also may say so, frank in her assessment of her conduct. Dr Evans agreed with the proposition that on the basis of the evidence that was available as at March 2013, which she looked at and that was available to her, and that she should have looked at that the decision not to proceed to laparotomy was the wrong decision.[200]

157. Dr Evans agreed with the proposition in Associate Professor Brewster's report that her care of Mr Brown did not fall below the standard of care that would be expected of an anaesthetist and with Associate Professor Brewster's assertion that it seemed that Dr Evans made a poor assessment of Mr Brown's clinical cause of hypotension at 1.01am

---

[196] T.504.

[197] T.505.

[198] T.506.

[199] T.510.

[200] T.511-512.

on 27 March 2013, and that a diagnosis of hypovolaemic shock could have been made given that there did not appear to have been substantial objective evidence for cardiogenic shock.

158. Dr Keeling put to Dr Evans that Professor Brewster's report asserts that given what was available or what she should have known at the time (26 & 27 March 2013), with the facts then available, it was unreasonable to prefer cardiogenic shock. Dr Evans replied that:

> "*This was a very complex case. It was very late at night and this is – this was what I thought, um, when you're the person at the bedside, when you're dealing with a lot of information coming, um you don't necessarily have the luxury to have it all put down page by page as it currently is in the brief, um and so at the time its not what I – its not what I thought. I can see now that I should have thought otherwise but it not what I thought at the time.*"[201]

159. Dr Evans agreed with the proposition that appears to have been a fixation bias of multiple senior and junior medical staff on two incorrect assumptions, that there was a cardiac cause primarily responsible for Mr Brown's severe shock. Dr Evans agreed she decided first and early on that Mr Brown had cardiogenic shock and that she was unwilling or unable to and didn't change her mind, that she had a fixation bias and second that Mr Brown did not have significant haemorrhage that required urgent return to the operating theatre and that she had that fixation bias.[202]

160. Dr Evans agreed with Mr Halley's proposition that from when she first saw Mr Brown at around midnight on 26 March until 6.00am on 27 March she held the view that the risk of going to theatre and the harm of a general anaesthetic out-weighed the potential benefit of going to theatre.[203] Dr Evans also agreed with Mr Halley's proposition that she understood that there was an agreement amongst both the junior and senior ICU clinicians that this was indeed cardiogenic shock.

---

[201] T.515.

[202] T.515.

[203] T.533.

161. Dr Evans reiterated that it was her view at mid-night on the 26th that there were cardiac factors at play and that to proceed to exploratory laparotomy would not have been prudent.[204] And that, at 2.00am Mr Brown's condition had deteriorated to the point where surgical intervention would likely to have been futile.[205] Dr Evans also agreed with Mr Halley's proposition that her statement set out that she was and when giving evidence, was still of the opinion that;

> *"I was extremely concerned that his clinical state as at the time of my first review was so grey that on balance due to suspected cardiogenic failure rather than slowly the bleed and hypovolemia…that to subject him to exploratory laparotomy under general anaesthetic would not be survivable….and quite rightly you said to Ms Lai, because that was your assessment. You can't take him to surgery until I've excluded or we have excluded cardiogenic shock---it would not be prudent to go to surgery.*"[206]

162. Dr Evans also accepted that she told Ms Lai that it was important to do the ECG and then if she took Mr Brown to surgery without excluding cardiogenic shock that he would die.[207] Mr Halley took Dr Evans to page 46 of the Inquest Brief (Dr Evans' first statement) in which she set out her belief that, as there described, she thought that a return to theatre for a laparotomy would subject Mr Brown, who was then gravely ill, to a significant preoperative stress which may not have been survivable either in the immediate hours, or that he would have died on the table over the ensuing days.

163. Mr Harper put to Dr Evans that when a multidisciplinary team, in this case comprising of surgical, anaesthetic and ICU team members, deals with a patient's care what should and did occur in so far as Mr Brown is concerned is that teams get together to discuss their respective viewpoints and that a consensus is reached. In Mr Brown's case that consensus was that in order to exclude a cardiogenic cause an ECG was required. Dr Evans agreed that this had occurred and that 'no-one' objected to this course of action.[208]

---

[204] T.535.

[205] T.535.

[206] T.536.

[207] T.537.

[208] T.543.

164. Dr Keeling asked Dr Evans' view about Professor Cashin's opinion set-out on p.65 of the Inquest Brief that had Mr Brown been returned to surgery relatively soon following admission to the ICU on 26 March, that his chances of successful repair of internal bleeding was extremely high – in the order of 90%. Dr Evans replied that knowing what she knew when she was giving evidence that she thought Professor Cashin's assessment "…*somewhat optimistic.*" and agreed with Dr Keeling's proposition that it was more likely than not, 51% that he would have survived.[209] Dr Evans also considered Professor Cashin's assessment that as at 2.00am the chances of successful surgical repair of the internal bleeding was high in the order of 70%-80% optimistic, although Dr Evans said that she felt unqualified to say if it was more likely than not that Mr Brown would have survived.[210]

4.6(e) Dr C. French, intensive care physician

165. Dr French was the intensive care physician at the Hospital who was on-call when Mr Brown went into ICU. Dr French gave evidence that he spoke to Dr Pham on the telephone on 26 March 2013 at about 11.30pm and from that conversation understood Dr Pham's view to be that Mr Brown was suffering from an acute myocardial event in the setting of possible intra-abdominal bleeding.[211] Dr French gave evidence of having spoken to Dr Evans at least once after Mr Brown had been intubated, which he thought occurred at about midnight on 26 March, but before Mr Brown had undergone an ECG.[212] During this discussion Dr French explained that Dr Evans outlined her assessment and her opinion that Mr Brown ought to undergo an ECG to exclude 'a cardiac cause'. Dr French gave evidence that he agreed with Dr Evans' assessment that an ECG was a reasonable thing to do to exclude, or to largely rule out a cardiac cause prior to returning to theatre. Dr French also gave evidence that he was told that Ms Lai was uncertain as to the aetiology of Mr Brown's shock and that there was agreement between the treating clinicians at the bedside that an ECG should be performed before consideration of a return to theatre.

[209] T.547.

[210] T.548.

[211] T.557-558.

[212] T.559.

Dr French gave evidence that until about 2.00am on 27 March that he thought that a cardiac cause was potentially more likely than a haemorrhagic cause.[213]

166. Dr French gave evidence that he did not recall Dr Pham telling him that he thought that Mr Brown's primary diagnosis was bleeding or that he, Dr Pham thought that Mr Brown's chest pain was or may have been caused by bleeding, although Dr French made clear that he "*…never excluded bleeding as a cause of this man's clinical condition.*" Dr French explained that "*…it was a balancing of risk, competing risks – whether this was a primary cardiac cause, whether it was a haemorrhagic cause or whether it was indeed a combination"*.[214]

167. Dr French agreed that he told Dr Pham at approximately 2.00am, following the ECG, that as well as maintenance of other treatment, palliative treatment measures should also be instituted to ensure Mr Brown's comfort as death appeared likely in a short period of time.

168. Dr French agreed with Dr Keeling's proposition that, other than hypotension and chest pain, that at 11.30pm on 26 March, Mr Brown showed no signs of cardiac failure[215] and Dr French also agreed with Dr Keeling that upper abdominal bleeding can be associated with chest pain, and chest pain does not exclude intra-abdominal bleeding.

169. Dr French gave evidence that at about 11.30pm that he formed the view that Mr Brown needed stabilisation and after speaking with Dr Evans thought it reasonable to wait for an ECG, but that he was always considering the possibility that Mr Brown was bleeding.[216] Dr French gave evidence that he considered there was sufficient time to undertake the ECG and then take Mr Brown to theatre if a decision was made that he was bleeding. Dr French based his opinion on the material with which he had been remotely provided and his understanding that there was a consensus view that it was reasonable to wait because of competing risks.

---

[213] T.560-561.

[214] T.565-566.

[215] T.578.

[216] T.580.

Dr French agreed with Dr Keeling's proposition that he had not himself made a truly independent decision, saying that he could not, as he was not at the Hospital and relied on the information provided by those at the bedside.[217]

170. Dr French gave evidence of having spoken to Dr Pham at about 2.00am, of understanding that the transthoracic echocardiogram had been completed and that the cardiologist had identified that there was no reversible cardiac cause for Mr Brown's shock – that Mr Brown did not have a cardiac cause for his hypotension.[218] Dr French gave evidence that at this time of the morning and on the basis of what he was told, he thought that Mr Brown would not then have survived surgery.[219] When asked by Dr Keeling about Mr Brown's level of inotropic support and his hypotension at 2.00am Dr French said that:

> "*He was now profoundly hypotensive, and in my experience someone on that degree of vasopressin support with that degree – with that degree of hypotension um, that death is unfortunately likely to occur shortly thereafter. That is what I was told at the time.*"[220]

171. Dr Keeling took Dr French to Mr Brown's file and referring to the reduction in the rate of the noradrenaline infusion with which Mr Brown was being provided at 2.00am and the commencement of an adrenaline infusion, asked if reducing the level of inotropes was consistent with palliating a patient. Dr French said that it was, and that the usual thing is to cease them rather than reducing them. Dr French agreed with the proposition that it was possible that palliation would include reducing inotropes and then ceasing them.[221]

172. Dr French gave evidence that he did not instruct Dr Pham to cease inotropic support but could not give any reason why it should have been reduced as it was.[222] It is to be recalled of course that Dr French had told Dr Pham at about 2.00am, after the ECG that palliative treatment measures should be instituted.

---

[217] T.581-582.

[218] T.582-583.

[219] T.583.

[220] T.583.

[221] T.590.

[222] T.584-585.

Dr French gave evidence that a reduction in inotrope support was possibly consistent with Mr Brown being palliated, and when asked by Dr Keeling whether he told Dr Pham by telephone at about 2.00am that Mr Brown was to be 'palliated' Dr French said that he did not recall instructing Dr Pham to cease life-sustaining therapies and that his recollection was that life sustaining therapies were to be continued.

173. When asked by Dr Keeling about which doctor was ultimately responsible for making decisions regarding Mr Brown, Dr French said that he believed it to be shared between the intensive care consultant, himself, and the admitting specialist, Professor Jones. Dr French agreed that neither the surgical registrar, Dr Tham nor the ICU registrar Dr Pham, were responsible for the 'decision-making'.[223]

174. Dr French agreed with a number of propositions in Professor Cashin's report including what the hallmarks of hypovolaemic shock were and that Mr Brown had exhibited many of these hallmarks early, when he was on the ward.[224]

175. Dr French disagreed with Dr Keeling's proposition that based on what he knew at the time, that it was unreasonable for him to have given preference to a diagnosis of cardiogenic shock over bleeding, but said that on the basis of what he ought to have known that it was unreasonable to have favoured cardiogenic shock over bleeding.[225]

176. To Professor Cashin's assertion that the decision-making process was of a poor quality and very confused even with some slightly unusual and confounding factors, Dr French responded that in retrospect if different clinical decisions had been made there is a possibility, a real possibility, that Mr Brown could have survived. Dr French gave evidence that his understanding of Mr Brown's condition would have been improved if he had a picture of the progression of Mr Brown's condition post-surgery rather than 'snapshots'.[226]

177. Dr French disagreed with some of Professor Cashin's assertions and qualified others, but agreed that the transthoracic echocardiogram effectively excluded, albeit perhaps not entirely, a cardiac or reversible cardiac cause.[227]

---

[223] T.593.

[224] T.597.

[225] T.601.

[226] T.597-598.

[227] T.600-605.

178. Dr French gave evidence that post the ECG he understood that the surgical opinion was that Mr Brown was thought unlikely to be bleeding and that he thought that Dr Pham told him at about 2.00am that it was unlikely that Mr Brown was bleeding.[228] Once again it is to be recalled that at this time Ms Lai considered that Mr Brown was more likely to have cardiogenic shock.[229] Dr French gave evidence that at this time he was concerned that it was more likely that Mr Brown was bleeding rather than that he was suffering from cardiogenic shock. Dr French gave evidence that he did not tell Dr Pham to tell Ms Lai of his opinion, nor did he call Professor Jones to discuss the matter because:

> "*...I felt the death was likely to occur shortly thereafter and that therefore, the – I did not make – I regret but I did not make the decision to question the surgical decision at the time because I felt that death was likely to occur in the next hour.*"[230]

179. To Professor Cashin's assertion that he, Dr French, should have spoken to Professor Jones, Dr French said that such a discussion would have been preferable.[231]

180. Dr French gave evidence that when he first spoke to Dr Pham at about 11.30pm, he couldn't recall if he asked Dr Pham what the surgeon said about Mr Brown possibly bleeding, and that he regretted not challenging what he saw as the opinion that the patient was not bleeding, after the results of the ECG were known.[232] He gave evidence that he regretted not telephoning Ms Lai.[233]

181. When asked questions by Mr Harper, Dr French gave evidence that the ECG result was abnormal and was potentially consistent with right heart failure and possibly with mildly decreased left ventricle function.[234]

---

228 T.605.

229 T306.

230 T.606.

231 T.608.

232 T.610.

233 T611.

234 T.617.

4.6(f) Associate Professor D. J. Brewster, independent expert intensivist and anaesthetist

182. Associate Professor Brewster gave evidence of being a dual medical specialist practising in both intensive care medicine and anaesthetics and made two statements, he read both of them and they were tendered as exhibit 14.[235]

183. Associate Professor Brewster was frank in his evidence that a diagnostic error occurred leading to Mr Brown's death. That the more timely availability of a bedside ECG would have made a significant difference and, at about 7.30pm on 26 March when Mr Brown's blood pressure drop was seen, a call ought to have been made to a doctor and if there was no response in 15 minutes a Code Blue call ought to then have been made. This evidence reflected Nurse Lewis' evidence but not the events of the night.

184. Associate Professor Brewster gave evidence that those treating Mr Brown were faced with a difficult clinical scenario and that it was not unreasonable for them to intubate him, ventilate him, stabilise him and obtain urgent cardiac investigations to prove that it was cardiogenic shock, and if then it was found not to be, to take Mr Brown to the operating theatre to look for bleeding.

185. Associate Professor Brewster gave evidence that given the medical record, Mr Brown should have been seen by a senior doctor immediately when he arrived in the ICU, or within 30 minutes during the time his condition was deteriorating, that is earlier than when Ms Lai first saw him at about 11.30pm and Dr Evans at 11.40pm.[236]

186. Associate Professor Brewster gave evidence that Mr Brown was administered Hartman's solution and Gelofusion at 8.15pm and 8.45pm, that is 45 minutes after his hypotension was detected was not appropriate, and that he should have been given intravenous fluid immediately the blood pressure drop was seen.[237]

187. Associate Professor Brewster gave evidence that if Mr Brown's central venous pressure had been checked at 10.00pm, before he was intubated, and he had been examined for pulmonary oedema including his chest x-ray being checked, the results would not have

[235] T682-684.

[236] T.687.

[237] T.688, 693.

supported the diagnosis of cardiogenic shock over internal bleeding, also taking into account that any bradycardia may have been associated with a response to anaesthetic.[238]

188. In response to Dr Keeling's direct questions about clinical decision-making at about midnight on 26 March Associate Professor Brewster gave evidence that:

(a) Escalating requirement for inotropes does not differentiate between cardiogenic shock and bleeding.

(b) Lack of tachycardia does not differentiate between cardiogenic shock and bleeding.

(c) Mr Brown's central venous pressure should have made bleeding more likely.

(d) A drop in haemoglobin makes bleeding more likely.

(e) An episode of chest, epigastric and right upper quadrant pain at about 10.30pm does not differentiate between cardiogenic shock and bleeding.

(f) Mr Brown's troponin level would not be used to rule out transient cardiac ischemia and when combined with the ECG results and with the absence of other objective evidence, a question as to why cardiogenic shock was the diagnosis arises.

(g) Mr Brown being acidotic at around midnight doesn't differentiate between cardiogenic shock and bleeding. [239]

189. Associate Professor Brewster gave evidence of there clearly being a 'fixation bias' on cardiogenic shock"*…someone has made a diagnosis of cardiogenic shock and the others have all followed.*".[240]

190. Associate Professor Brewster described taking patients into operating rooms knowing that they may die and some hopeless cases such as major trauma, bleeding, aneurysms being an 'awful scenario'. Associate Professor Brewster distilled the dilemma to whether there was any chance of survival by not going into the operating room and gave evidence that he thought that there was not, and so that it may have been better to try surgery knowing that Mr Brown may have died.[241]

---

[238] T.690-691.

[239] T.704-706.

[240] T.708.

[241] T.712.

Associate Professor Brewster gave evidence that as at 12.30am if the ECG machine was to arrive within 15 minutes and such a test would take 10 minutes it may have been appropriate to wait but if:

> "*…it's another hour away it doesn't appear that this gentleman … is going to survive if you keep waiting longer and I would have just gone to the operating theatre…there was no anaesthetic reason not to take him to the operating room. Yes, he may have died, yes, he was critically unwell but he was already on a ventilator and intubated and so all you had to do was wheel him down and continue your ventilation in the operating room.*"[242]

Associate Professor Brewster's evidence was that whilst it may have been reasonable to wait 15 minutes for an ECG it was not reasonable to wait one hour or two hours, and that given Mr Brown's condition the ECG could have been ordered when he arrived in the ICU. [243]

191. Whilst Associate Professor Brewster was clearly grappling with difficult issues he gave evidence that Dr French should have gone into the Hospital to assess the patient himself, although at the same time acknowledging that it is reasonable for the intensivist who has a consultant in the department and an anaesthetist providing them with information not to attend.[244] As at 2.00am after the ECG, bearing in mind that there had been real difficulty obtaining a 'good view' of the results, Associate Professor Brewster said that ECG didn't solidify the diagnosis of cardiogenic shock, identifying the comment in the report that "*…Would recommend CT to exclude abdominal* cause." can be interpreted as meaning that those who administered the echocardiogram thought that Mr Brown was bleeding.[245] After having been taken to the medical records describing Mr Brown's condition at 2.00am and being asked about the decision that ought then to have been made, Associate Professor Brewster replied that he would have asked the surgeons to take Mr Brown to theatre to investigate for bleeding.[246]

---

[242] T.713.

[243] T.685-686.

[244] T.714.

[245] T.718-719,

[246] T.722.

4.6(g) Professor P. A. Cashin, independent expert upper abdominal and hepatobiliary surgeon

192. Dr Keeling asked Professor Cashin to consider whether, Professor Jones having been told by Ms Lai between 11.30pm and midnight that the plan to take Mr Brown to the operating theatre for surgery had changed to having an ECG, should have been a trigger for Professor Jones to go into the Hospital. Professor Cashin said that:

 "*…such a radical change in a critically ill patient where, um a correct discussion had occurred with regard to post-operative bleeding, would in my opinion necessitate the senior surgeon attending to have that discussion. Um, I'm not sure whether that subsequently was something that needed to be done before going into surgery or whether that was going to replace the diagnosis of – of intrabdominal bleeding. Um, but I would be of the opinion in a situation like this, with a radical change in the pathway of management that I, as a senior surgeon would – would need to attend. I think that's a general standard amongst the surgical community.*"

 Dr Keeling:

 "*So on the change of in – or should I say on the delay of the proposed postponement, at least of surgery, for the purposes of an echocardiogram, is it your opinion that Professor Jones ought to have attended?*"

 Professor Cashin

 "*Yes.*"[247]

193. Professor Cashin gave evidence that Mr Brown being reviewed by a senior person four hours after he first "*…dropped his blood pressure…*" was not reasonable and that a reasonable time by which Mr Brown should have been taken back into the operating theatre was an hour to an hour and a half from when Mr Brown first dropped his blood pressure.[248]

194. Professor Cashin gave evidence that it would be very rare for two clips to not be correctly placed or to fall off the cystic artery.

[247] T.757.

[248] T.760.

195. Dr Keeling recounted Ms Lai's evidence that she may have clipped two arteries[249] and the clip from one had come off and asked Professor Cashin about this. Professor Cashin gave evidence that the cystic artery sometimes bifurcates with a branch going to each side of the gallbladder. In such circumstances a surgeon may miss clipping one of the branches. Professor Cashin gave evidence that given the tempo with which this developed, the suddenness and the speed with which it developed, it would be slightly suggestive more of a major vessel arterial bleed than of ooze from the gallbladder.[250]

196. Professor Cashin agreed that it was certainly possible that two clips found in a blood clot 'came off' such that it was unlucky in the context of a competently performed operation.[251]

197. Professor Cashin gave evidence that from 7.30pm until 11.30pm or thereabouts, Mr Brown's fluid resuscitation was not adequate and that in circumstances where there is a working diagnosis of a non-acute post-operative bleed that 'vigorous fluid resuscitation was required'.[252]

198. Professor Cashin gave evidence that you might want to 'fluid restrict' if you were considering a cardiac cause but said that there was enough evidence available to absolutely entertain a cause of post-operative bleeding, and if that is the situation, Ms Lai should have been vigorously resuscitating the patient with fluids in conjunction with the discussion with intensive care and the anaesthetist in preparation for returning to the operating theatre.

199. Professor Cashin gave evidence that Ms Lai should have reviewed Mr Brown's fluid balance charts herself when she arrived at the ICU and assessed him – that she should have been absolutely aware of the total volume that Mr Brown had received intravenously over that period.

200. Professor Cashin gave evidence that if a person were in cardiogenic shock, one would expect their central venous pressure to be elevated.

---

[249] T.326.

[250] T.766.

[251] T.768.

[252] T.775-776.

Mr Brown's venous pressure between 10.00pm and 11.00pm was normal, and such would be within the knowledge of a surgeon.[253]

201. Dr Keeling asked Professor Cashin to consider a number of factors and say something about whether they tipped the balance towards bleeding as a cause or cardiogenic shock. Professor Cashin gave evidence that Mr Brown's:

   (a) hypotension was more likely bleeding;

   (b) escalating requirement for inotropes was more likely to be bleeding;

   (c) lack of tachycardia – more as a conductivity problem than myocardial failure or bleeding but cannot make a determination in isolation;

   (d) drop of haemoglobin indicated bleeding;

   (e) chest pain as described, does not point in one direction or the other;

   (f) ECG with no acute ischemic changes more recently would be more likely to be bleeding;

   (g) at 8.30pm the normal troponin swayed his thinking to bleeding, although a single normal level is not indicative of a heart attack rather the pattern from a series of measurements is an indicator; and

   (h) lack of signs of cardiac failure on clinical examination is indicative of bleeding.[254]

202. Dr Keeling put Mr Brown's heart rate, arterial blood pressure, level of infused noradrenaline and fluid levels at 11.30pm to Professor Cashin, asking, "*Is that a patient who has an hour to wait for an echocardiogram considering all of the circumstances?*"

   Professor Cashin answered "*No.*".[255]

203. Professor Cashin added:

   "*…If the professional opinion from the intensive care team and the cardiologists were unclear that there was to be a benefit to that and that was being communicated to the surgical team and that in a sense if this was communicated as being something that was essential to be done that might change the way that you would look at it but when*

---

[253] T.779-780.

[254] 782.

[255] T.783-784.

you look at the raw numbers alone I don't believe that an echocardiogram was appropriate. We're talking about multiple team management and – and discussion here and that can be very, very difficult."[256]

204. Professor Cashin gave evidence of who was in charge of Mr Brown's treatment explaining that once Mr Brown arrived in the ICU, the intensive care doctors, the anaesthetists and to a point the cardiologists were the primary decision makers.[257] He also gave evidence that the primary bed-card holder was the person who is responsible for the patient, the person who performed the surgery or the team or the hierarchy associated with that team should be the ones making the ultimate decisions. Professor Cashin gave evidence that he didn't believe that the surgeons were making the ultimate decisions once Mr Brown arrived in ICU.[258]

205. In answer to Mr Halley's question, Professor Cashin gave evidence that if hypotension suggested a post-operative bleed it would not be expected surgical practice that the consultant would go into the Hospital if a fellow was dealing with the patient. Professor Cashin gave evidence that after the first conversation between Ms Lai and Professor Jones it would have been reasonable for Professor Jones to have expected that Mr Brown would have been taken into the operating theatre in line with Professor Jones' clear instructions to Ms Lai.

206. Professor Cashin gave evidence about 'learned biases' occurring when surgeons and intensivists disagree on a course of action and the difficulties that arise, and indeed of him having had to "*…push to override what you see or to have the discussion, um is sometimes quite difficult…*"[259]

207. Professor Cashin gave evidence of it being remiss of a surgeon not to be at least listening to ICU staff and the anaesthetist, in particular, if the surgeon is junior and the other staff senior. Whilst Professor Cashin agreed with Mr Halley that it would have been reasonable for Professor Jones and Ms Lai to agree to await the exclusion of cardiogenic shock at about midnight after having been told that if Mr Brown had cardiogenic shock and underwent surgery he will die.

---

[256] T.785.

[257] T.794.

[258] T.794.

[259] T.799.

Professor Cashin referred his belief of a then lack of evidence of cardiogenic shock.[260] Professor Cashin conceded that this assessment was with the benefit and space of hindsight and maintained his opinion that the likelihood of successful surgical repair post ECG was in the order of 70% - 80%. Professor Cashin was not however critical of Professor Jones' assessment that the likelihood was about 20% or Dr French's view that Mr Brown was unlikely to survive.

208. Professor Cashin made clear though that evidence at the Hospital on 26 and 27 March 2013 led the team down one path and that it had become clear that on the balance of probabilities that path was wrong.[261] Professor Cashin posits the probably fundamental utilitarian position: "*I don't – in a sense, I don't care what the survivability is… a patient is bleeding …I will guarantee you that if they don't stop bleeding they are going to die …if they' got a 5 percent chance…and they're bleeding, that I can fix them in the operating theatre I will take them into the operation theatre.*[262] Professor Cashin continued giving evidence that he has "…*some issue…*" with Dr French's assessment that Mr Brown was unlikely to survive if he was returned to theatre at 2.00am. Professor Cashin reasoned that once cardiogenic shock has been excluded internal bleeding was the most likely problem.

209. Professor Cashin confronts the dilemma of taking into account on one hand Dr Evans' position that if Mr Brown underwent surgery that he was likely to die and on the other hand, his stated position was that Mr Brown would certainly die if he was bleeding. Professor Cashin reasoned that one would choose the course involving a likelihood of Mr Brown surviving, being surgery, even if that likelihood was low rather than the certainty of death absent surgery.[263] This thesis was advanced when Professor Cashin gave evidence that on the basis of the evidence available at the time to the treating doctors his opinion was that as at 2.00am Mr Brown had about a 20% chance of survival, with aggressive blood and fluid management to restore circulation may have provided a slim chance of survival.

---

[260] T.800-801.

[261] T.804.

[262] T.804.

[263] T.806.

Professor Cashin gave evidence that Mr Brown should have been diagnosed as bleeding and was of the view that, absent intervention, it was highly likely he would die.[264]

5. CONCLUSIONS AND FINDINGS

210. That Mr Brown slowly bled to death over approximately 15 hours post-surgery, including a 10-hour period in intensive care in a major Melbourne Hospital while all the time under the care of experienced physicians is considerably concerning. Than Mr Brown's death was avoidable is more than considerably concerning.

5.1 Mr Brown's treatment before he arrived at the Intensive Care Unit.

211. The evidence is that when Nurse Lewis first noticed Mr Brown's blood pressure drop, she did not follow the Hospital processes for notifying a doctor or calling a 'Code Blue'. Had she done, so Mr Brown's subsequent treatment may have been different although the evidence does not allow me to conclude that had Nurse Lewis followed the Hospital processes for notifying a doctor that Mr Brown may have survived.

5.2 First Doctor's examination of Mr Brown and Notification of Ms Lai

212. The evidence is that after Nurse Lewis noticed Mr Brown's drop in blood pressure at about 7.30pm on 26 March 2013, Mr Brown was first examined by a doctor in the ward at some time before 8.15pm.[265] and then by Dr Tham the general surgical registrar at approximately 8.30pm.

213. By 9.00pm, Mr Brown had been transferred to the ICU where he was first examined by Dr Pham the intensive care registrar at approximately 10.30pm and by Ms Lai at some time shortly before 11.30pm and Dr Evans shortly before 11.40pm. Dr Evans intubated Mr Brown at approximately 12.05am on 27 March 2013.

214. Associate Professor Brewster gave evidence that given Mr Brown's condition he should have been examined by a doctor sooner and by a senior doctor immediately when he arrived in the ICU.

215. Dr Lai should have been notified of Mr Brown's deteriorating condition earlier than 9.30pm and she should have first examined Mr Brown earlier than she did.

[264] T.811.

[265] T.40.

The evidence does not allow me to conclude however that had any of these elements occurred as they should that Mr Brown may have survived.

5.3 Lack of adequate fluid resuscitation

216. Medical records and the evidence reveal that Mr Brown did not receive fluid resuscitation until 8.15pm, being some 45 minutes after his lowered blood pressure was first noticed. Associate Professor Brewster gave evidence that Mr Brown should have been given fluid resuscitation immediately after his low blood pressure was noticed rather than 45 minutes later. Associate Professor Brewster gave evidence that this lag was not appropriate. Professor Cashin said it was 'a fraction slow'. Mr Brown's fluid resuscitation generally was inadequate. Once again it is not possible to say that, had the delay in the administration of intravenous fluids not occurred, Mr Brown would have survived. However, the evidence is that aggressive fluid resuscitation was appropriate, and its absence contributed to a preference of cardiogenic shock over hypovolaemic shock.

5.4 Dr Evans' & Dr French's Roles

217. After having been telephoned by Dr Tham, Ms Lai telephoned Professor Jones; they were of one mind that Mr Brown was likely bleeding internally. Ms Lai hung-up from Professor Jones, telephoned Dr Tham and told her that Mr Brown was to be taken back into the operating theatre to be checked for internal bleeding and that Dr Tham should book an operating theatre. For reasons that remain unclear whether such booking was made or not is unknown. What time Ms Lai arrived at the Hospital is also unknown but the evidence is that she first assessed Mr Brown at about 11.30pm and up to this time the evidence is that Mr Brown was to go back to an operating theatre for surgery to see if he was bleeding internally.

218. Dr Evans went to see Mr Brown, at least as she understood it, because it was thought that he was bleeding internally, and he was to go back into surgery. Dr Evans examined Mr Brown and spoke to Ms Lai some-time around 11.40pm. Dr Evans' evidence was that she was concerned that Mr Brown's declining condition was due to a 'cardiac concern' because of his high dose of noradrenaline, that he had not experienced tachycardia, and his haemoglobin had remained relatively stable.

Dr Lai's evidence was that Dr Evans told her that Mr Brown was too sick for surgery and that if she took him back to theatre, he would die on the table.

219. Dr Evans gave evidence that she recognised that when she spoke to Ms Lai in the ICU at about 11.40pm that she conveyed to her that Mr Brown would die from the anaesthetic if he was taken to theatre. Dr Evans' evidence was that it was always her opinion that Mr Brown was suffering from a primary cardiac condition rather than bleeding internally, and that she also knew that if Mr Brown was bleeding internally and did not go back for surgery that he would certainly die. Dr Evans said:

> "*At the time my understanding of my memory is that had he – that I'd preference cardiogenic because there seemed to be – it seemed to be the most – a highly possible cause for his shock and its really – as I sit here today I can't offer a very cogent explanation. I wish that I could, I just know that was my thought at the time.*"[266]

220. In considering whether her preference for cardiogenic shock was reasonable Dr Evans said:

> "*This was a very complex case. It was very late at night and this is – this was what I thought, um, when you're the person at the bedside, when you're the person dealing with as a part of the team, when you're dealing with a lot of information coming, um, you don't necessarily have the luxury to have it all put down page by page as it currently is in the brief, um, and so at the time its not what I – it's not what I thought. I can see now that I should have thought otherwise, but it's not what I thought at the time.*"[267]

221. Dr Evans gave evidence of having left the Hospital at about 2.00am after having been informed of the result of the ECG and leaving Mr Brown in the care of Dr French. Dr Evans gave evidence of having been telephoned at approximately 6.00am and updated about Mr Brown's condition and of still then not considering that Mr Brown was bleeding.

---

[266] T.483.

[267] T.515.

222. Dr Evans frankly gave evidence that she was uncertain why that which she was then aware of didn't suggest to her that Mr Brown was bleeding and that Mr Brown was being managed by the intensive care unit doctors including Dr French and Dr Pham and her being "*…still on the track of the cardiogenic shock.*".

223. The evidence contained considerable criticism of the diagnosis of cardiogenic shock. Dr Evans said that she should have, but did not, check Mr Brown's central venous pressure and that its level did not support cardiogenic shock. Associate Professor Brewster gave evidence that had Mr Brown's central venous pressure been checked before he was intubated and had he been examined for pulmonary oedema, including by chest x-ray, the preference of cardiogenic shock over hypovolemic shock may not have prevailed.

224. Dr Evans gave evidence that when contemplating Mr Brown's possible cardiogenic shock that she considered that the increasing noradrenaline requirements indicated how sick Mr Brown was, as well as the aetiology of his illness. Dr Evans later conceded that such increases were indicative of how sick Mr Brown was but were not indicative of the aetiology of his illness.

225. Dr Evans also conceded that despite Ms Lai maintaining her view that she thought that Mr Brown was bleeding she, preferred the diagnosis of cardiogenic shock because it seemed to be the most highly possible cause of Mr Brown's shock. Dr Evans explained that even after the results of the ECG were known, she continued to believe that Mr Brown was suffering cardiogenic shock because the study was difficult to do, there was a mildly moderate increase in the size of the right ventricular, Ms Lai saw no bleeding when she examined the port wound. Dr Evans gave evidence that she did not consider whether Mr Brown bleeding could have caused cardiac disfunction, but that if she had, she may have reached the view that the bleeding could have caused the cardiac signs seen on the ECG.

226. When asked about Associate Professor Brewster's opinion that given the evidence available at the time and what she should have then known, Dr Evans said that her preference for cardiogenic shock was reasonable on the basis of what she knew at the time but unreasonable on the basis of what she ought to have known.[268] Dr Evans also said that that was what she thought then, but that she could see when giving evidence that she should have thought otherwise.

---

[268] T.596.

227. Dr Evans agreed with Associate Professor Brewster's opinion that her care of Mr Brown did not fall below the standard of care expected of an anaesthetists but that in retrospect her assessment of Mr Brown's clinical condition at about 1.00am on 27 March 2013 may have been poor and that a diagnosis of hypovolemic shock could have been made given that there did not appear to have been substantial objective evidence for cardiogenic shock.

228. Dr Evans conceded that the evidence available to her, when she was discussing 'a primary cardiac cause' for Mr Brown's hypotension with Ms Lai and Dr French, was insufficient to support a diagnosis of cardiogenic shock. Dr French relied on the information with which he was provided and did not form his own diagnosis. Similarly, Professor Jones relied on, the information provided to him by Ms Lai.

229. Professor Jones was clear that throughout the night that he thought the cause of Mr Brown's hypotension was internal bleeding and Mr Brown ought to be returned to the operating theatre for the bleeding to be stopped. On the basis of what he was told by Ms Lai of what Dr Evans and Dr French thought, Professor Jones agreed to postpone returning Mr Brown to the operating theatre pending an ECG.

230. Dr Evans gave insightful and frank evidence. She did not shy from close analysis of her own conduct, nor did she balk at criticism. Dr Evans gave evidence that Mr Brown's was a very complex case – it was late at night. With great respect, her candour reveals a caring thoughtful, careful professional required to make a difficult assessment in difficult circumstances. Dr Evans was not alone in her very real concern that Mr Brown was suffering from cardiogenic shock and that surgery presented a potential threat to his life. Dr Evans insightfully referred to having experienced 'fixation bias' which prevailed in the absence of strident contrary views.

231. Dr French gave evidence that Dr Pham told him in a telephone call at about 10.30pm that he was concerned about Mr Brown having a myocardial event and that he was also possibly bleeding internally. Dr French formed the view that a cardiogenic shock sounded more likely than haemorrhagic shock. Dr French again spoke to Dr Pham at approximately 11.30pm and ordered the ECG and perhaps an angiogram. He knew Mr Brown was to be intubated.

Dr French gave evidence that he believed that there was time to conduct an ECG and take Mr Brown to theatre if necessary, on the basis of what he was told by Dr Evans and Dr Pham and his belief that this was the consensus view at the time. Dr French conceded that he did not make an independent assessment himself.

232. Dr French gave evidence that he had, he thought, one discussion with Dr Evans after she intubated Mr Brown and had assessed him just after midnight, but before the transthoracic echocardiogram. Dr French gave evidence that agreed with Dr Evans' assessment, that an ECG was reasonable to rule out cardiac cause before returning Mr Brown to theatre, a plan with which Ms Lai was said to agree. Dr French gave evidence that up until 2.00am he believed that a cardiac cause was potentially more likely than a haemorrhagic cause. Dr French gave evidence of speaking to Dr Pham on the telephone at about 12.30am and given Mr Brown's inotrope dose, his prognosis was poor.

233. Dr French spoke to Dr Pham again at approximately 2.00am when Dr Pham told him that the transthoracic echocardiogram had showed not acute reversible myocardial cause for Mr Brown's condition. Dr French gave evidence that at this time he believed, once again on the basis of what he was told by Dr Pham, that Mr Brown would not then survive surgery, telling Dr Pham that palliative treatment measures should be instituted because death appeared likely.

234. Dr French gave evidence that he relied on what he was told by Dr Evans and Dr Pham to make assessments, and that given that Mr Brown was being treated by a consultant anaesthetist and a fellow of the Australian College of Surgeons he did not need to go to the Hospital. Dr French conceded that on the basis of what he ought to have known at the time, his preference for cardiogenic over bleeding was unreasonable.[269]

235. Dr French did not accept Professor Cashin's opinion that decision-making was of poor quality and very confused, but neither did he explicitly repudiate it. Dr French said that he had relied on 'snapshots' of Mr Brown's condition and if he had a better picture of the trajectory of the change in his condition, he would have been better informed. Dr French agreed that it would have been preferable if he had spoken directly to Professor Jones.

[269] T.596.

Dr French gave evidence that he thought it tragic that after the ECG he didn't challenge the opinion that Mr Brown was not bleeding and that if he had spoken to his opposite number (Professor Jones) he would have spoken about the likelihood of bleeding. He said that one of his regrets was that he didn't telephone Ms Lai himself. Dr French conceded that at 2.00am his view then was that Mr Brown might die within an hour, risks to his life from surgery take on a different context, but the decision about whether Mr Brown went to theatre for surgery was a matter for the surgeons. Dr French gave evidence that if different clinical decisions had been made Mr Brown's outcome could have been different, and profred the view that highlighting 'confirmation bias' to the broader medical community would be useful.

236. Dr Evans assessment of Mr Brown was seriously affected by a confirmation bias and Dr French's decisions were made on the basis of information provided to him by Dr Pham that was infected with that bias.

5.5 Waiting for an echocardiogram before returning Mr Brown to the operating theatre

237. Associate Professor Brewster made clear that, whilst it may have been reasonable to wait for a short time for an ECG to be conducted, in the circumstances of Mr Brown's condition, waiting for an hour or two was not reasonable.

238. This is especially so, said Associate Professor Brewster, when the ECG could have been arranged much earlier than it was. It is clear from the evidence that the doctors at Mr Brown's bedside considered the dangers posed by cardiogenic shock sufficiently serious to wait longer than what Associate Professor Brewster considered appropriate. It is not clear that there was a proper basis for the perception of such dangers in deed the evidence is that assessment of all relevant information would not support that serious danger.

239. At about midnight Professor Jones acceded to the plan to have the ECG undertaken rather than taking Mr Brown straight back to theatre. Professor Jones thought that this procedure would take about an hour and gave evidence that Mr Brown might survive if he were taken to theatre if the echocardiogram did not support the diagnosis of cardiogenic shock. Professor Jones gave evidence that, at midnight, he thought that Mr Brown would survive for another hour.

240. Whilst it was appropriate to wait for a short time, perhaps an hour for the ECG to be performed the decision to wait longer was seriously undermined by the confirmation bias.

5.6 Confirmation bias

241. How very senior doctors and their junior doctors communicate was an issue in the management of Mr Brown. Showing considerable insight, Dr Evans gave evidence about how more junior doctors, in this case perhaps, Ms Lai, may have felt uncomfortable at the prospect of enthusiastically advancing a diagnosis of internal bleeding in the face of her diagnosis of cardiogenic shock.

242. It was clear from Professor Jones' and Dr French's evidence that doctors not at the bedside are in an inferior position to diagnose than those who are. Professor Jones made clear that his concession to await the ECG, rather than ensure that Mr Brown was taken back to theatre immediately, was based on what Ms Lai told him, and he ultimately considered what he had been told was inadequate.

243. Professor Jones only spoke to Ms Lai, and Dr French only spoke to Dr Pham, as was established practice or protocol, and that their opinions and advice were based on what they had each been told. Both also considered that had they spoken directly to each other or gone into the Hospital, that they would likely have been better informed and that their decisions and advice may have been different. Professor Cashin made clear in his report that they should have spoken to each other directly.

244. Of those assessing Mr Brown, Dr Evans was the only senior doctor actually present in the ICU at the relevant times. Professor Jones and Dr French were and remained remote, with their opinions being heavily influenced by Dr Evans' view and the information provided to them by their respective associated practitioners. In Professor Jones' case by Ms Lai, and for Dr French, Dr Pham. The effect of the 'fixation bias' under-which Dr Evans laboured inhibited Dr Evans ascribing more weight to Ms Lai's opinion. Professor Jones too was of the view that Mr Brown was bleeding and Dr Evans was aware of that. Professor Jones was prepared not to insist that Mr Brown be taken into surgery during the evening and night of 26 March 2013 because of the information provided to him by Ms Lai including Dr Evans' opinion. Ms Lia providing information to Professor Jones was infected with the fixation bias under-which Dr Evans laboured. So too was the information that Dr Pham provided to Dr French.

245. Dr Evans gave evidence that she was not "…*challenged in her thinking…*" and that it was "…*possible that* [Dr Lai and Dr Pham] *felt uncomfortable for whatever reason… that they unable to challenge…*" her.[270] The evidence makes clear that effective challenge could certainly have been provided by Professor Jones or Dr French, both of whom gave evidence that on 26 and 27 March 2013, despite having spoken to Dr Lai and Dr Pham by telephone, they had not been made fully aware of the Mr Brown's presentation.

246. Confirmation bias was ongoing without effective check and undermined assessments made by Professor Jones and Dr French.

247. Associate Professor Brewster explained a 'confirmation bias' or 'fixation bias' occurs when a doctor having made a decision or diagnosis only sees subsequent evidence as confirming that diagnosis or decision when such evidence may indicate another diagnosis or decision.[271] Associate Professor Brewster agreed with the proposition that when 'confirmation bias' is in play other doctors at the bedside passing on information to consultants may pass on information that is "… *inherently infected…*" by that bias and so consultant's going into the hospital adding "… *fresh eyes*…" would be a way to deal with any inherent bias.[272]

248. It is clear from the evidence[273] that Dr Evans was the first person to raise cardiogenic shock as the cause of Mr Brown's declining condition shortly after she first saw Mr Brown in the ICU at approximately 11.40pm on 26 March. Thereafter by her own admission and effected by 'confirmation bias' she interpreted all evidence as supporting this assessment. In a frank review of her analysis Dr Evans gave evidence that on 26 and 27 March there was insufficient evidence then available to support her conclusion that the cause of Mr Brown's declining condition was cardiogenic shock.

249. Dr Evans' bias was affected by her understanding that there was an agreement, amongst both the junior and senior ICU clinicians that this was indeed cardiogenic shock. Dr Evans gave evidence that:

---

[270] T.509-510.

[271] T.723-724.

[272] T.728-729.

[273] T.363 -363, 515, 615-619, 66 -617, 708, 722-723, 728-748, 792-799, 815.

"*Yes I – I didn't feel that I was on my own in making this decision. I didn't feel that I stood alone. I felt that I was in unison with – with um – with Dr French and – and the surgeons. When - you know at around 2 o'clock or soon after, there – there seemed to be some – there was a decision made that not for theatre and I cannot recall the specifics of what said what to whom."*[274]

250. The difficulties arising from this understanding are twofold. First, the agreement of which Dr Evans speaks was considerably generated by her expertise, seniority and her being the only senior doctor at Mr Brown's bedside. All that was conveyed to Professor Jones and Dr French was unconsciously 'infected' by the confirmation bias. Second, both Professor Jones and Dr French made clear that their assessments and decisions were based on the information provided to them respectively by Ms Lai and Dr Pham including Dr Evans' views. Both Professor Jones[275] and Dr French[276] lamented at the inquest that they did not have directly to hand all the material available to Dr Evans at the Hospital on the night which would have allowed them to reach truly independent conclusions. This is significant, because Dr Evans conceded that the material that was available to her at the Hospital on 26 and 27 March 2013 (that which she considered and that which she could or should have considered), was insufficient for her to have preferred cardiogenic shock over internal bleeding. [277]

251. In answer to a questions from Ms Ellis in relation to evidence available from the medical record to support a differential diagnosis of a cardiac cause, Associate Professor Brewster gave evidence that looking back there didn't appear to be enough evidence to support that diagnosis.[278] A particular concern of Professor Brewster was that "…*there was no test done to disprove the theory that the patient was not bleeding*."[279]

252. Professor Jones gave evidence that he didn't go into the Hospital because Ms Lai, an experienced fellow of the college, was conveying information to him but as a result of which his assessment was affected by a 'confirmation bias' and to some degree by

---

[274] T.534.

[275] T.651

[276] T.582.

[277] T.483, 515.

[278] T.731, 744.

[279] T.735.

Ms Lai not challenging Dr Evans' assessments at least in a manner that may have influenced Dr Evans' conclusions.[280]

5.7 Senior Medical Staff / Consultants Attending the Hospital After Hours

253. Professor Jones made clear in his evidence that he didn't go into the Hospital initially, that is, after Ms Lai first called him, because he was confident Ms Lai could deal with what they both thought needed to be done – surgery. Ms Lai gave evidence that she spoke to Professor Jones just before midnight and told him of Dr Evans' concerns and the plan for an ECG to establish if Mr Brown needed surgery or if his declining condition was as a result of cardiogenic shock. Professor Jones reluctantly conceded and whilst his evidence was that he didn't turn his mind specifically to how long it would take to conduct the ECG, he said that he thought it would take about an hour.[281] Professor Jones made clear in his evidence that he thought that Mr Brown was bleeding and that there was no reason to invoke the alternative diagnoses. The ECG was delayed and didn't occur until shortly before 2.00am. In Professor Jones' view that two-hour delay and concomitant decline in Mr Brown's condition seriously affected Mr Brown's ability to survive surgery.[282]

254. Professor Jones gave evidence that he didn't go into the hospital because nobody asked him to. He said that he had provided his opinion to Ms Lai and that he didn't think that he could have contributed further; Ms Lai was there. He also gave evidence that he wished that he had gone in and said that he should have gone in. Professor Jones considered that a trigger for a consultant such him to go into the Hospital and contribute face to face was when for example Ms Lai wanted him to look at what was going on, on the floor, or to better inform himself of the case when there had been input into the decision making that was not consistent with his own. [283]

255. Associate Professor Brewster gave evidence that Dr French should have attended the intensive care unit. Dr French considered that his attendance was unnecessary because Mr Brown was being attended to by senior staff – he had spoken to Dr Evans and Dr Pham.

[280] T.509-510.

[281] T.640.

[282] T.639,646-647.

[283] T.652, 666, 673, 674.

256. I am conscious that both Professor Jones and Dr French said that had they known all that the medical record revealed that their decisions may have been different.

257. I am also conscious of Dr French's evidence that after he became aware of the ECG results, he considered the source of Mr Brown's problems was more likely to be bleeding than cardiogenic shock and that he regretted not making the decision to question the surgical decision because he thought that Mr Brown's death was imminent.

258. Dr French agreed with the proposition that it would be useful to have an intensive care consultant on duty and present at hospital overnight.[284] Dr French was of the view that making medical staff more aware of the existence of confirmation bias across the broader medical community would be a useful exercise.

259. Dr French and Professor Jones being at the Hospital may have encouraged a more forthright and frank exchange of opinions. I note Professor Jones' direct manner when giving evidence. I am unable to say what would have occurred on 26 March 2013 had Professor Jones been at the Hospital.

5.7(i) Who was the ultimate decision-maker regarding Mr Brown's management?

260. On the issue of who is the ultimate decision-maker when there are a number specialist doctors caring for a critically ill patient as Mr Brown was, the gravamen of Associate Professor Brewster's evidence was that it is a decision made as a team; it is a shared responsibility. Associate Professor Brewster gave evidence that if all three specialists were physically present at the Hospital, there may have been a different decision made.[285] Associate Professor Brewster said that it wasn't unreasonable that Professor Jones and Dr French didn't go into the Hospital because "*…that's what happens in - in the real world…*". Associate Professor Brewster acknowledged that where confirmation biases are in place, knowledge passed on to consultants may be tainted with that bias ans so consultants physically attending hospital may obviate the effect of any confirmation bias.[286]

[284] T.618.

[285] T.724-725.

[286] T.728.

Associate Professor Brewster acknowledged that had Professor Jones gone in to the Hospital, as he gave evidence that he now wished he had, or had Dr French attended, "*…a fresh set of eyes may well have had a different outcome because they may have picked up a different diagnosis. In other words they may have said the patient is bleeding.*"[287] I can see no logic in Professor Jones and Dr French not going into the Hospital to examine Mr Brown simply because as said Associate Professor Brewster "*…that's what happens in the real world*.".

5.8. Mr Brown's Chances of Surviving Surgery at Midnight, 2.00am and Afterward.

261. Ms Lai last spoke to Professor Jones at about 2.00am after the results of the ECG were known. Professor Jones thought that surgery was futile, and that Mr Brown was going to die. Dr Lai left the hospital sometime shortly afterward as did Dr Evans knowing that the 'cardiology team' considered it unlikely that Mr Brown had a major ischemic cardiac event, but despite this continued to believe the Mr Brown's declining condition was due to cardiogenic shock. Medical record notes[288] by Ms Lai at 2.10am refer to Professor Jones 'agreeing no further surgical intervention' and Dr Evans 'agreeing' so as at shortly after 2.00am, Professor Jones and Dr Evans thought that Mr Brown was soon to likely to die. The only reason then for not then undertaking surgery was that they thought that surgery was futile or it may kill Mr Brown. Associate Professor Brewster thought that at 2.00am Mr Brown had 20%-30% chance of surviving surgery taking into account possible complications including multi-organ failure, stress on his heart,[289] and Professor Cashin thought that Mr Brown then had a chance of surviving surgery.

262. On one view then, if at 2.00am Mr Brown's condition was likely to further deteriorate and he was going to die, and there was even a slim, or very slim chance that surgery would save him, it should have been undertaken. It is to be recalled that at this time Professor Jones thought surgery futile and that futile surgery ought not be undertaken. With respect, Professor Jones is clearly right. Dr French was less clear about this but having been told by Dr Pham that the surgical team did not think Mr Brown was bleeding and not being a surgeon, did not suggest surgery.

[287] T.729.

[288] I.B .248.

[289] T.723-724.

Dr Evans called the Hospital at about 6.00am to be told that Mr Brown was still very unwell. Dr Evans canvassed Mr Brown being given blood. Mr Brown died at 7.15am.

263. I have no doubt that on 26 and 27 March 2013 all of the doctors who provided statements and who gave evidence at the inquest acted conscientiously in what they believed to be Mr Brown's best interests.

264. The evidence is that had Mr Brown been returned to theatre before midnight on 26 March 2013, he is likely to have survived. As time passed beyond midnight the likelihood of Mr Brown surviving surgery lessened. That said, it is not clear that at 2.00am Mr Brown would not have survived such surgery.

265. The problem was that Dr Evans' sincerely held belief that Mr Brown was suffering from cardiogenic shock rather than bleeding internally was not supported by the information recorded in the medical record. Dr Evans belief of the nature of Mr Brown's condition over the 26th and 27th was affected by a confirmation bias which caused Dr Evans to interpret her observations of Mr Brown's condition as supporting her belief. This confirmation bias was contributed to by the actual cause of his condition, internal bleeding, not being 'enthusiastically' debated at the Hospital. This lack of debate was at least contributed to by Professor Jones and Dr French not being present at the Hospital and aggravated by the information provided to them by Dr Pham and Ms Lai being infected with confirmation bias.

266. Both Professor Jones and Dr French lamented not having directly spoken to each other and of not having gone into the Hospital themselves so as to be able to consider data relevant to Mr Brown's condition, and from that construct their own opinions of the cause of his deteriorating condition. The evidence revealed a lack of clear Hospital guidelines dealing with when 'on-call' and consultant medical staff ought to directly communicate with each other and when they ought to go into the Hospital. There was evidence that the arrangements that were in place had been in place for some considerable time. It is appropriate that they now be reconsidered

267. Confirmation bias is an insidious and dangerous phenomenon that clearly played a significant a part in Mr Brown's death. It is eminently desirable that its dangerous and creeping effects be front of mind to physicians and processes be in place to ensure that it does not hold sway.

268. With respect, I concur with Professor Jones' normative assertion that futile surgery ought not be permitted. However, in circumstances where, absent surgery, death is sure, perhaps 'futility' should be considered very narrowly and a slim, or very slim or perhaps even a parlous chance of survival might justify surgery. It may be appropriate that in such circumstances, patients' families might be consulted. I note that witnesses did not refer to having spoken to any members of Mr Brown's family during 26 or 27 March 2013.

269. Some good will flow from Mr Brown's death and the inquest. I set out below recommendations aimed effectively dealing with confirmation bias and improving communication between treating physicians.

6. MATTERS IN RELATION TO WHICH FINDINGS MUST, IF POSSIBLE, BE MADE

270. Having investigated the Mr Brown's death and held an inquest pursuant to 67(1) of the *Coroners Act* (2008), I find:

(a) The identity of the deceased was Barry Brown born 27 June 1956;

(b) Mr Brown's death occurred:

(i) On 27 March 2013 at The Western Hospital, 160 Gordon Street, Footscray, Victoria;

(ii) as a result of internal blood loss which was a complication of laparoscopic cholecystectomy, and

(iii) in the circumstances set out in paragraphs 208 – 265 above.

7. RECOMMENDATIONS

271. Some of the recommendations I set out below may be thought to be unnecessary because they are an implicit part of understandings between physicians. This matter evidences that any implicit understanding is not as clear as it may be thought to be.

272. Pursuant to section 72 of the Act I recommend that:

(a) The Western Hospital:

(i) Provide specific periodic training to nursing staff reinforcing the significance of strict compliance with the 'escalation algorithm' first referred to in paragraph 58 above and the circumstances under which various 'codes' including 'code blue' ought to be 'called'.

(ii) To the extent that it is not currently explicitly part of Hospital procedure and protocols, explicitly include in relevant procedure and protocols the requirement that a surgeon who has operated on a patient be immediately notified if that patient experiences post-operative hypotension and that in such circumstances the surgeon (or a nominee) be required to go to the Hospital and assess the patient as soon as is possible.

(iii) Formulate and promulgate written policy setting-out when 'on-call' physicians, consultant physicians, specialist physicians admitting physicians and otherwise relevant physicians, or other senior treating physicians, or all or any of a combination of them, are treating one patient they should;

(A) Speak directly to each other, rather than managing a patient's treatment indirectly through more junior physicians, or remotely by technology For example, if one or other of such medical specialists proposes treatment or a management plan with which another has reservations, or if the patient's condition precipitously changes and there is uncertainty about aetiology or treatment.

(A) Themselves go to the hospital and assess a patient.

(b) The Australian Medical Council include in the syllabus for training those who wish to practise as physicians (and to the extent that it is included highlight) explicit and detail material analysing 'confirmation bias', its nature, manifestation and potentially fatal effects.

PUBLICATION

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

DISTRIBUTION

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

Mr Jason Brown. (Mr Brown's Senior next of kin.)

Ms N Brown.

Professor T. Jones.

Dr C.J. French.

Dr. B.E Evans.

Ms J. M. Lai.

Dr S.B.T. Pham.

Dr L.Y.N Tham.

Chief Executive Officer Western Hospital.

Chair of the Australian Medical Council.

Dr Iles Victorian Institute of Forensic Medicine.

Associate Professor D.J. Brewster.

Professor P.A. Cashin.

Ms Jeanette Lewis.

Signature:

DARREN J BRACKEN

CORONER

Date: 20 July 2021.