FINDINGS of Coroner Andrew McKee following the holding of an inquest under the *Coroners Act* 1995 into the death of:

Nicholas John Summers

Contents

Record of Investigation into Death (With Inquest)

Coroners Act 1995
Coroners Rules 2006
Rule 11

I, Andrew McKee, Coroner, having investigated a death of Nicholas John Summers with an inquest in Launceston and Hobart make the following findings.

Hearing dates

28 February 2019

29 and 30 March 2021

7 and 19 April 2021

26 August 2021

20 September 2021

15, 16, 18 and 19 May 2022

Representation

Counsel Assisting – 28 February 2019 Ms V Jones, balance of inquest Ms E Bill

Counsel for Ms A Harper – 28 February Ms Harper self-represented, Ms B Davies balance of inquest

Counsel for Dr M Mathew – Mr A Crocker

Counsel for Mr A Hui and Royal Melbourne Hospital – 15, 16, 17 and 19 May 2022: Mr R Harper

Introduction

Nicholas John Summers died on the 16 February 2016, when an aneurism on an AV fistula situated on his right arm perforated and he bled to death.

Mr Summers was born in Queenstown, Tasmania. At the date of his death he was 41 years of age. He had been in relationship with his long term partner, Ms Amanda Harper, for a period of some 25 years.

The couple resided together in Longford Tasmania. Mr Summers had two stepchildren Mathew and Peter Harper. The couple had three children, Jake, Zac and Amy. Mr Summers had another child from a relationship he entered into during a brief separation from Ms Harper.

Mr Summers held employment as a handyman in the Longford area. He retired from that occupation due to being diagnosed with kidney disease.

Diagnosis of kidney disease

Mr Summers was formally diagnosed with IgA nephropathy in 2008 following a kidney biopsy. He was referred by the Emergency Department of the Launceston General Hospital to nephrologist Dr Mathew. He remained under the care of Dr Mathew until his death, except for periods when he failed to attend for treatment.

Dr Mathew first saw Mr Summers on 17 March 2009. At that time Mr Summers had a kidney function of about 17%. Mr Summers was prescribed blood pressure medications and his kidney function was stabilised. A fistula was created in his left arm on 12 November 2009. Throughout 2010, Mr Summers missed a number of clinical appointments. From March 2011 to 2012, Mr Summers did not attend clinical appointments.

When he recommenced clinical appointments in March of 2012, he had a kidney function of 7%. The fistula in his left arm was non-functioning and another was created in his right arm in April of 2012. He started on haemodialysis in June of 2012.

Mr Summers attended the Kings Meadows renal clinic to undergo dialysis on Mondays, Wednesdays, and Fridays. Mr Summers' condition continued to deteriorate and he was placed on the transplant list.

Mr Summers' medical records indicate that he was reviewed by vascular surgeons whilst on dialysis.

The transplant operation

A transplant operation occurred at the Royal Melbourne Hospital in December of 2015. The transplant was successful. Mr Summers spent a period of time in Melbourne as both an inpatient and outpatient of the Royal Melbourne Hospital. He was discharged to the care of Dr Mathew and returned to Launceston on 8 January 2016.

The course of the inquest

This inquest has taken a considerable time to complete and below is the history of the course of the inquest and the reasons as to why it took a considerable period of time for the inquest to reach finalisation.

After a consideration of the coronial file relating to Mr Summers' death, a decision was made that an inquest into his death needed to be held. That decision was made because there was a conflict between Ms Harpers and Ms Chloe West's (Mr Summers' step daughter in law) recollection of certain events compared to the recollection of Dr Mathew as to the same events.

It was Ms Harper's position that post-transplant, Mr Summers' fistula significantly changed and a scab developed on the fistula. This observation was corroborated by Ms Chloe West.

Ms Harper recalls that Mr Summers showed the fistula to Dr Mathew at a review on 19 January 2016. According to her, Dr Mathew indicated that he did not like the look of the fistula and that it needed vascular review. Such a review did not take place before Mr Summers' death.

Dr Mathew's position is that he did not observe a scab on the fistula. He made contact with a renal nurse to confirm that Mr Summers had undergone a review with a vascular surgeon prior to transplant. Upon learning such a review had occurred, he did not believe any further action needed to be undertaken in relation to the fistula.

The above represents the state of the evidence as at the date the decision was made the matter needed to proceed to inquest.

The inquest into the death of Mr Summers was listed for hearing on 28 February 2019. The hearing of the inquest was assigned to me by the Chief Coroner upon my transfer to the Coronial Division of the Court from the general division of the Court in January of 2019.

The preparation of the file for hearing and the scope of the inquest was settled by others.

The scope of the inquest as outlined by Ms Jones in her opening address on 28 February 2019 is summarised as follows:

a) The appearance of the fistula in the weeks preceding Mr Summers death and whether a scab had formed on the fistula; and
b) The response and treatment provided to Mr Summers by officers of Ambulance Tasmania on 16 February 2016.

At that time Ms Harper had not raised any issues with the care received by Mr Summers at the Royal Melbourne Hospital. Dr Anthony Bell, a medical advisor attached to the Coroner's Office and who was called as a witness on 28 February 2019 had reviewed Mr Summers' medical records from the Royal Melbourne Hospital and noted *"the Royal Melbourne Hospital notes contain no useful information concerning the AV fistula."*

As a result of the above, the scope of the inquest did not include did any consideration of the treatment Mr Summers received as either an inpatient or outpatient at the Royal Melbourne Hospital.

During the hearing on 28 February 2019, coronial exhibits C1–C22 were tendered.

The following witnesses gave evidence:

a) Ms A Harper, partner of Mr Summers;
b) Ms C West, step daughter in law of Mr Summers;
c) Dr M Mathew, treating nephrologist of Mr Summers;
d) Dr C Georgakas, Director of Medical Services for Ambulance Tasmania; and
e) Dr A Bell, medical advisor attached to the Coronial Division.

A significant portion of the hearing on 28 February 2019 revolved around the state of Mr Summers' fistula; what occurred at the appointment on the 19 January 2016; and what occurred post that appointment.

At the conclusion of the hearing on 28 February 2019, I reserved my decision.

In the course of considering my findings it became clear to me that post mortem photographs of Mr Summers' fistula, taken during the autopsy, which were tendered as an exhibit at the hearing on 28 February, had not been put to any of the witnesses.

A consideration of those photographs depicted areas on Mr Summers' fistula which in my view should have been shown to the witnesses for their comment.

As such, I determined it was appropriate to reopen the inquest. A case management conference was conveyed in October of 2019. I ordered a photograph of the fistula taken at autopsy be provided to Ms Harper and Ms West for comment and a further affidavit be obtained from both of them. Their affidavits were then to be provided to Dr Mathew for review and comment.

That process took until February 2020. After the affidavits were obtained, a further report was obtained from Dr Bell and a further affidavit from Dr T Brain, forensic pathologist who conducted the autopsy, was obtained. It was decided further evidence needed to be taken

on the inquest. It was also decided that Dr Brain would give evidence at the resumed inquest. During this period COVID–19 caused delays as Dr Mathew's counsel was based interstate.

Prior to the commencement of the resumed inquest, Ms Harper indicated she would be represented by counsel. The resumed inquest was initially lengthier than anticipated as Ms Harper's counsel cross examined Dr Mathew on issues that would have or should have been canvassed at the hearing on 28 February 2019.

This potentially placed Dr Mathew at a disadvantage as he was being subjected to a further cross examination after having already given evidence on 28 February 2019.

The inquest resumed on 29 March 2021 and continued on the following dates:

a) 30 March 2021;
b) 7 and 19 April 2021;
c) 26 August 2021;
d) 20 September 2021; and
e) 15, 16, 18 and 19 May 2022.

During the reconvened hearing during April, it became apparent that the state of the fistula was considered by nursing staff and medical practitioners at the Royal Melbourne Hospital. The medical records maintained by the Royal Melbourne Hospital had not previously been distributed to the parties because Ms Harper made no complaints regarding the treatment received by Mr Summers at the Royal Melbourne Hospital and Dr Bell had reviewed the medical records and concluded *"the Royal Melbourne Hospital notes contain no useful information concerning the AV fistula."*

The Royal Melbourne Hospital medical records were distributed to the parties and confirmation was sought that the Coroner's Office was in possession of all medical records relating to Mr Summers' transplant procedure, including outpatient notes.

Dr Mathew reviewed the Royal Melbourne Hospital records. In the course of his review, he located notes made by Mr Aaron Hui (then a trainee surgical registrar). Dr Mathew prepared a further statement. That statement outlined that Mr Hui had seen Mr Summers on 5 January 2016. At that time, Mr Summers had signed a consent form to undergo a procedure to tie off his fistula. At the same time, Mr Hui had completed a request for admission for that procedure to occur. Mr Hui recorded the urgency of the proposed procedure as category two–semi urgent.

Dr Mathew in his further statement outlined his interpretation of the notes. As a result of Dr Mathew preparing that statement, Ms Davies applied for him to be recalled as a witness.

A decision was made by counsel assisting to try and locate Mr Hui and call him as a witness. Again this process took time. Mr Hui had moved to Scotland. He was located and he agreed to give evidence.

A statement was prepared by counsel assisting and circulated to the parties. Mr Hui gave evidence via zoom from Scotland on 26 August 2021.

His evidence was not completed on that date. Mr Hui was returning to Australia and arrangements were made for him to give evidence upon his return to Australia.

I ruled on Ms Davies application to recall Dr Mathew, despite Mr Hui giving evidence, on 15 September 2021.

On the day that Mr Hui was due to complete his evidence, Ms Davies, on behalf of Ms Harper, indicated that Ms Harper had located a phone previously used by Mr Summers and had accessed it. She had located text messages and as a result of considering those messages and providing further instructions to Ms Davies, it was now Ms Harper's position that I would be requested to make findings critical of Mr Hui and the Royal Melbourne Hospital at the conclusion of the inquest.

I directed that the phone referred to by Ms Harper be seized and examined. Ms Harper made a further statement. In that statement, Ms Harper outlined that various doctors at the Royal Melbourne Hospital had examined Mr Summers and indicated that the fistula needed to be tied off because they did not like the look of it and it was proposed that procedure would occur when a stent was being removed.

She also stated that the procedure to tie off the fistula was delayed because staff were going on holidays for Christmas.

Other matters were outlined, which I will detail in the balance of the finding.

Given that submission, it was incumbent on me to provide Mr Hui and the Royal Melbourne Hospital with procedural fairness and advised them of the position being adopted by Ms Harper. The inquest was further delayed whilst materials were provided to Mr Hui and the Royal Melbourne Hospital.

I also directed Ms Davies to identify the deficiencies in treatment and care provided to Mr Summers by the Royal Melbourne Hospital and Mr Hui. She did so by letters dated 4 October 2021 and 28 March 2022.

The Royal Melbourne Hospital and Mr Hui were represented by counsel on the resumption of the inquest in May of 2022.

By the conclusion of the inquest, it would be fair to say that the scope of the inquest had extended to consider:

a) The state of Mr Summer's fistula in the weeks preceding his death;
b) The appropriateness or otherwise of the treatment Mr Summers received whilst a patient under the care of the Royal Melbourne Hospital; and
c) The appropriateness or otherwise of the treatment he received from Mr Hui.

The evidence concluded on 19 May 2022 and submissions were made by counsel both orally and in writing.

I reserved my decision until 15 July 2022.

Rather unusually I will deal with the Royal Melbourne Hospital and Mr Hui at this point. The basis upon which it was submitted I could be satisfied it would be appropriate to make adverse finding against the Royal Melbourne Hospital and Mr Hui are identified above.

By the conclusion of the inquest, I did not understand Ms Davies to be maintaining any submission critical of the care of the Royal Melbourne Hospital or Mr Hui other than a failure to communicate a proposed procedure to Dr Mathew in a timely manner (that was the decision to tie off the fistulas).

Whilst I accept that procedure was not relayed to Dr Mathew in a timely manner, the failure to do so was explained by Mr Hui, the failure to relay the information had no impact on Dr Mathew's clinical decision making and certainly was not causative of Mr Summers' death.

Given counsel abandoned their criticisms of the Royal Melbourne Hospital and Mr Hui in closing submissions I do not intend addressing the submissions in any detail.

The *Coroners Act* 1995

My role under the *Coroners Act* 1995 is to make factual findings surrounding Mr Summers' death in accordance with section 28 of the Act.

Over the course of the hearing the following witnesses gave evidence:

a) Ms Amanda Harper, Mr Summers' partner;
b) Ms C West, Mr Summers' step daughter in law;
c) Dr M Mathew, Mr Summers' treating nephrologist;

d) Ms L Evans, renal nurse;
e) Dr A Bell, medical advisor who provided expert opinion;
f) Dr T Brain, forensic pathologist who conducted the autopsy;
g) Mr A Hui, medical practitioner who provided treatment to Mr Summers at the Royal Melbourne Hospital; and
h) Dr Con Georgakas, Director of Medical Services for Ambulance Tasmania.

In making my findings I am satisfied that this matter has now been comprehensively investigated and the relevant issues have been fully explored. I have taken into account the evidence tendered at the inquest namely:

C1. Report of Death – Constable K Springer;
C2. Life Extinct Affidavit – Dr J C Power;
C3. ID Affidavit – Constable S Smith;
C4. Post Mortem Report – Dr T Brain;
C5. Report – Ambulance Tasmania;
C6. Medical Report – Dr M Mathew, Blackfields Specialist Group;
C7. THS Records – Dr M Mathew, Launceston General Hospital;
C8. Affidavits – A Harper, sworn 16 February 2016, 11 October 2017, and 12 April 2018;
C9. Affidavit – G Knight, sworn 13 March 2018;
C10. Affidavit – J Stott, sworn 15 March 2018;
C11. Affidavit – K Smith, 9 April 2018;
C12. Affidavit – P James, sworn 19 March 2018;
C13. Report – N Kirby, Chief Executive, Ambulance Tasmania, dated 5 December 2017;
C14. Report and Annexures – P Templar, Acting Chief Executive, Ambulance Tasmania, dated 9 November 2016;
C15. Report – Registered Nurse L Evans, Renal Unit, Launceston General Hospital, dated 26 September 2018;
C16. Affidavit – C West, sworn 20 September 2018;
C17. Photo of Fistula;
C18. Medical Report – Dr A Bell, dated 13 November 2018;
C19. Consultation Notes – Dr S Mahjoor;
C20. Outpatient Notes – Launceston General Hospital;
C21. Post Mortem Photographs;
C22. Statement and Annexures – Dr M Mathew, dated 26 February 2019;
C23. Affidavit – A Harper, sworn 21 November 2019;
C24. Affidavit – C West, sworn 21 November 2019;

C25. Addendum Statement – Dr M Mathew, dated 14 February 2020;
C26. Affidavit – Dr T Brain, sworn 9 March 2021;
C27. Medical Report – Dr A Bell, dated 12 June 2020;
C28. Medical Report – Dr A Bell, dated 10 March 2021;
C29. Additional Photographs;
C30. Marked Photograph – Dr T Brain;
C31. Article – Aneurysms and Pseudo aneurysms in Dialysis;
C32. Article – Clinical Practice Guideline for Vascular Access;
C33. Statement – Dr M Mathew, dated 7 April 2021;
C34. Article – Fatal Dialysis Vascular Access;
C35. Statement and Annexures – Dr M Mathew, dated 22 April 2021;
C36. Medical Records – Royal Melbourne Hospital;
C37. Report – Dr S Mahjoor, dated 23 August 2021;
C38. Statement and Annexures – Mr A Hui, dated 9 August 2021;
C39. Records – Launceston Pathology;
C40. Phone Examination Report and Images of Text Messages – Senior Constable D Shaw;
C41. Additional Medical Records – Royal Melbourne Hospital;
C42. Statement – A Harper, dated 27 September 2021; and
C43. Statement – Mr A Hui, dated 13 May 2022.

The significance of the presence of a scab on the aneurysm on the fistula

The significance of a scab developing on the aneurysm on the fistula is that there is unanimous agreement from all medical practitioners who gave evidence at the inquest that the presence of a scab on the aneurysm would indicate that urgent medical intervention was required as the fistula was at significant risk of rupture.

Was a scab present on the aneurysm on the fistula and the appointment of 19 January 2016?

Upon his discharge from the Royal Melbourne Hospital, Mr Summers returned to Tasmania under the care of Dr Mathew.

Dr Mathew reviewed Mr Summers on the following dates in 2016:

a) 12 January;
b) 15 January;
c) 19 January;
d) 22 January;

e) 25 January;
f) 29 January;
g) 2 February;
h) 5 February;
i) 6 February; and
j) 12 February

Dr Mathew reviewed pathology results on various occasion on the above dates. The pathology records have been tendered as exhibit C39.

Ms Harper gave sworn evidence at the inquest. Taken in as exhibit C8 were three affidavits sworn by Ms Harper. She confirmed the contents of the affidavits she had sworn as being true and correct, except the portion of the affidavit sworn 16 February 2016 regarding her travelling to the Launceston General Hospital in another ambulance. That was incorrect. She travelled to the hospital in her own motor vehicle.

The effect of her evidence was that the appearance of Mr Summers' fistula had changed quite significantly post-transplant and that a scab had developed on the fistula. In her affidavit sworn 16 February 2016, Ms Harper indicated that Mr Summers was waiting to see a specialist to tie the fistula off permanently but that no one had made an appointment for him to see the specialist.

In the same affidavit Ms Harper gave the following description of the fistula:

> *"When we came home from Melbourne after the transplant which was about six weeks ago, Nicholas formed a scab on the bottom fistula which we were waiting to see the specialist to tie it off permanently. Nicholas was meant to go to the doctor last week however no one made an appointment for him to see the specialist."*

The description she gave of the fistula in her affidavit dated 11 October 2017 was as follows:

> *"I have spoken previously about the three fistulas that Nicholas had in his arms. He had two in his right arm and one in his left upper arm. The left arm fistula was blocked and not functioning and was never used.*
>
> *We first noticed a scab starting to form on the right lower arm fistula which was the main one that was used. We notice this when we came back from Melbourne in early January, Nick started to see a change it became annoying and somewhat scary for him.*
>
> *The scab itself was the size of a five cent coin, it was raised or swollen and most of the time was red and brown and looked very dry. "*

Ms Harper gave a further description of the fistula in an affidavit sworn the 12 April 2018. In that affidavit she described the fistula as follows:

> *"I have been asked did the fistula on Nick's arm change appearance post-transplant, I would say that fistula did change appearance after the transplant. It became redder and appeared to have form scabs. We notice this probably a couple weeks after we came home from Melbourne.*
>
> *As I stated above, the fistula stayed the same size, however, it became redder and formed a significant scab which would have been a bit smaller than a five cent coin.*
>
> *I have only got one photo that really does not show the scab unfortunately, I will arrange this photo to be supplied to the coroner's office."*

In that affidavit Ms Harper made further comment about the appointment of 19 January:

> *"I believe it was on the 19 January at an appointment with Dr Mathew that Dr Mathew looked at the fistula and told us he did not like the look of it. He contacted the renal staff at the LGH and arranged for staff there to make an appointment for Nick to see the specialist on Thursday the 21 January 2021, just two days later. He told us that he believed the fistula needed to be tied off and that is why we needed to see the vascular surgeon.*
>
> *The appointment for the Thursday was never made by the renal staff that is why we never went. When we attended Dr Mathew after this he told us to make our own appointment and contact the renal staff, we did, however, and we were told the lady who makes the appointments was on holidays for a week. We did not make any more attempts to make an appointment because I believe this was close to when the incident at home occurred. We did not see the vascular surgeon."*

In the same affidavit Ms Harper made the following comment about the Royal Melbourne Hospital:

> *"I remember before we left Melbourne after the transplant that one of the doctors told Nick he would like him to return in March to have the fistulas tied off because he did not like the look of them."*

Clearly that must have been a reference to all the fistulas.

In her evidence in chief Ms Harper could not recall when she first noticed the scab on the fistula. Her evidence was clear that by 19 January 2016, the fistula had a scab on it, which she described as being brown on top and red around the centre of the fistula.

Counsel assisting Ms Jones confirmed with Ms Harper that her reference to a scab was a reference to what is commonly understood to be a scab. Counsel assisting used the commonly understood idea of a scab by referring to it as the dried blood that forms when you skin your knee. Ms Harper accepted that description.

The photograph of the fistula referred to in Ms Harper's affidavit dated 12 April 2018 is a photograph that was taken by Mr Summers on 3 February 2015. The photograph was downloaded from Mr Summers' phone by Ms C West. The photograph was taken in and marked as exhibit C17.

The photograph is of limited use as it was taken 12 months before the event that led to Mr Summers' death. The photograph is of a reasonable quality. What the photograph does show is the position of the fistula and a raised area on the fistula.

Subsequently the autopsy photograph was provided to Ms Harper. That photograph clearly shows the fistula, but it was cropped to cover portions of the photograph that may have caused distress to Ms Harper. In her affidavit dated 21 November 2019 and tendered as C23 Ms Harper stated:

> *"Nick had kidney issues and was having dialysis three times a week in Kings Meadows. He had two fistulas to enable that dialysis. Nick had a kidney transplant in December of 2015 in Melbourne. When we got back he no longer needed dialysis. After he got back I recall an area of thin skin on the fistula closest to the wrist. It proceeded to rise a bit off the skin, the scab over. The area just outside the scab was red, I am unsure if it was infected and would describe it as a scab rather than anything else.*
>
> *I can't really remember there may have been a pimple on the area were the scab later formed.*
>
> *Nick was worried about the scab as he didn't want it to lift. To him lifting meant he may bleed to death. He used to bandage it of a night when he went to bed to ensure it didn't get bumped.*
>
> *On 21 November I attended the Coroner's Office to view some photographs of Nick's inner arm. The photograph is not consistent with my memory. I have marked on a copy of the photo where the scab was, in the larger wound in the centre of the fistula. The larger wound area is the same size as the scab and the redness was to the outside of this. I do not recall the smaller wound towards the wrist area. I don't remember the white area but can see the area has been shaved as Nick was quite a hairy man."*

As noted Ms Harper identified on the photograph the position of the scab on the fistula. This area became known as site A when being discussed by the medical experts.

Ms West was called as a witness at the inquest. She confirmed the contents of her affidavit sworn on 20 September 2018 as being true and correct. Her affidavit was taken in and marked as exhibit C16. In that affidavit she gave the following description of the fistula:

> *"I can remember from that photo I supplied Constable Anderson the fistula grew and his skin surrounding the fistula became very thin in spots. This was prior to the scab forming. When this scab formed it was the size of a five cent coin and was red brown colour and looked like it was going to lift and burst open."*

In her evidence at the inquest Ms West stated the scab started as a scaly spot, that became a scab as the skin thinned out. She described it as being the size of a five cent piece. She utilised exhibit C17 to explain where on the fistula the scab formed. Her evidence was that the scab formed on the shiny spot depicted on the fistula.

Ms West stated she first noticed the scab some two to three weeks after Mr Summers returned from Melbourne. She clarified that answer by stating she first noticed the scab at the end of January or the beginning of February 2016. Her attention was drawn to the scab because Mr Summers started wrapping the fistula in a bandage.

During cross examination she confirmed that the appearance of the fistula had not significantly changed from what was depicted in the photograph other than the skin thinned out in some spots until Mr Summers left to travel to Melbourne for the transplant. Ms West rejected the proposition the fistula had not changed in appearance post-transplant.

Ms West also swore a further affidavit dated 21 November 2019 as a result of being shown the autopsy photograph.

In that affidavit she made the following comments:

> *"I recall first seeing the injury from dialysis on 10/1/2016 when he got back from Melbourne from a kidney transplant. It was about the size of a 5 cent piece and was located in his inner arm between the wrist and elbow.*
>
> *I saw it on a daily basis as we were in each other's houses every day.*
>
> *Nick died on 16 February 2016 and over that time the injury was "angry", red just past the wound line and was scabbed over and the scab was lifting slightly, it was also scaly. Nick had started to wrap it as he didn't want to knock or rupture it. He was going to the doctor regularly regarding all the issues.*

On 21 November 2019, I attended the Coroner's Office in Launceston where I viewed two photographs. My initial reaction is that the wound ruptured since I saw it. It did not look like that from my memory as there is no scab present in the photo. The scab was over the larger hole, it didn't extend past the wound and I do not recall the two smaller holes at the bottom towards the wrist. There is a lump further up the arm is a previous fistula. I have marked a photograph with were the scab was."

Once again the scab location was the site which the medical experts referred to as site A.

It is clear from the evidence of Ms Harper and Ms West that the appearance of the fistula (having formed a scab) was of concern to Mr Summers. Ms West stated that Mr Summers was constantly worried about the fistula and bumping it. She noted that he avoided picking up his grandson.

Ms Harper stated that Mr Summers became paranoid about the fistula. He avoided certain activities he believed placed the fistula at risk. He avoided contact with his grandchild. He would bandage the fistula at night to reassure himself.

According to Ms Harper's affidavits given the state of the fistula, Mr Summers mentioned it to Dr Mathew when he reviewed him on 19 January 2016. Her affidavit sworn 11 October 2017 records the following occurring at that appointment:

"Nick showed the scab to Dr Mathew on an appointment around 19th of January, Dr Mathew didn't like the look of the fistula and told us that it had to be tied off, so he contacted the Renal Unit at the LGH and informed them that he would like Nick to see the specialist on the following Thursday. Due to circumstances this appointment was never made. Nick did ring the LGH and asked to see the specialist, however, he was told that they were away on holiday."

In her affidavit sworn on 12 April 2018, Ms Harper gave the following description of the appointment with Dr Mathew on 19 January 2016:

"Nick would see Dr Mathew twice a week once we returned from Melbourne, during these visits Dr Mathew would weigh Nick, and he would check his bloods and medication and adjust it accordingly. He did not examine the fistula every visit only occasionally or if I mentioned something.

I believe it was on 19 January at an appointment with Dr Mathew that Dr Mathew looked at the fistula and told us he did not like the look of it. He contacted the Renal Staff LGH and arranged for staff there to make an appointment for Nick to see the specialist on Thursday

the 21 January 2018, just two days later. He told us that he believed the fistula needed to be tied off that is why we need to see the Vascular Surgeon.

The appointment for the Thursday was never made by the Renal Staff that is why we never went. When we attended Dr Mathew after this he told us to make our own appointment and contact the Renal Staff, we did, however, and were told the lady who makes the appointments was on holidays for a week. We did not make any more attempts to make an appointment because I believe this was close to when the incident at home occurred. We did not get to see the vascular surgeon.

Nick never attended the Renal Unit to get his fistula examined because you only go there if you have an appointment or are on dialysis.

Nick did not visit his GP on return from Melbourne.

I accompany Nick to all of his appointments."

In her evidence in chief Ms Harper's recollection of the review of 19 January 2016 was that Mr Summers showed Dr Mathew the fistula. She could not recall exactly what Dr Mathew said when shown the fistula but he did not like the look of it. She recalled that he said it needed to be tied off and he rang the Renal Unit and wanted Mr Summers to be seen by a specialist on the Thursday. In her evidence in chief Ms Harper could not remember any more about the proposed appointment but it is clear from her affidavits the appointment was to be with a vascular surgeon.

Ms Harper recalls that Mr Summers was told he would be contacted by "the girls" with an appointment time. Thursday came and went and no appointment was made for Mr Summers. About a week later Mr Summers raised with Dr Mathew that he had not been contacted by "the girls" with an appointment time and Ms Harper recalls that Dr Mathew told Mr Summers that he would need to make the appointment himself.

Ms Harper could not recall if Mr Summers showed Dr Mathew the fistula again or raised any concerns about the fistula at a subsequent appointment.

Ms Harper recalls Mr Summers contacted the Renal Unit about an appointment. Her evidence is that when Mr Summers hung up the phone he stated "*that's great, whoever makes the appointments is on holidays*." Mr Summers only made the one attempt to contact the Renal Unit for an appointment with the specialist.

Ms Harper was unaware that she and Mr Summers could attend the Renal Unit and have a staff member examine the fistula.

In relation to the appointment Mr Summers had with his general practitioner on 8 February 2016, Ms Harper had no recollection of that appointment.

In her statement dated 27 September 2021, Ms Harper states that at some point Dr Mathew was advised that a decision had been made in Melbourne to tie off the fistulas. Ms Harper believes that occurred on the first or second appointment. I note the appointment regarding the discussion to refer Mr Summers to a vascular surgeon occurred on the 3rd appointment (19 January 2016) according to Ms Harper.

Dr Mathew's recollection of the appearance of the fistula and the review on 19 January 2016 differs from Ms Harpers.

In response to a letter from the then Coroner, Dr Mathew in a letter dated 20 December 2017 made the following comment about the fistula:

> *"The nature of the fistula had not changed in appearance after his transplant. He also had lesions on his arm which were confirmed as Purring Nodular is after a biopsy while he was on dialysis."*

In a further letter to the Coroner's Office dated 8 March 2018, Dr Mathew made the following comments:

> *"When I saw Nic in the clinic following his transplantation I did notice a small area of slightly thinned out skin on top of the fistula. I will not call this a scab. I do not remember it to be raised or swollen or red. It is not uncommon to see this where repeated cannulation has been done in the past for dialysis. I did not think there was a significant change from his dialysis days, but I wanted to make sure that this was seen by a vascular surgeon. I contacted our vascular nurse who confirmed that he was seen by a vascular surgeon prior to his transplant and advised no intervention. Also there is no need to cannulate the fistula for dialysis any more after the transplantation. No appointment was made with the vascular surgeons after his transplantation. As I had mentioned in my earlier letter, he was also seen by the transplant surgeons in Melbourne who also do fistulas, and they also did not think any intervention needed to be done urgently."*

Dr Mathew clarified the reference to *"I wanted to make sure this was seen by a vascular surgeon"* to mean that he wanted to confirm that Mr Summers had been seen by a vascular surgeon prior to his transplant.

Dr Mathew provided a signed statement dated the 26 February 2019, which was two days before the commencement of the inquest on 28 February 2019.

Dr Mathew gave evidence at the inquest on 28 February 2019. In his evidence in chief he confirmed the contents of his statement as being true and correct. The statement was taken in as exhibit C22. The statement contained a number of annexures.

Dr Mathew's statement outlines his professional qualifications and background material as to how Mr Summers became his patient and the treatment Mr Summers was provided prior to his transplant.

Dr Mathew in his sworn evidence and his statement outlined the status of Mr Summers' fistulas prior to the transplant. He outlined in detail the input of vascular surgeons in treating Mr Summers' fistula.

Dr Mathew was aware that Mr Summers had two aneurisms at the needling sites of his fistula. He was also aware that Mr Walker, a vascular surgeon had reviewed him on 3 December 2015 and performed a fistulogram. Mr Walker indicated that no vascular follow up was required.

Dr Mathew last saw Mr Summers pre-transplant on 24 November 2015. There does not appear to be any issues with his fistula on that date.

After the transplant, Dr Mathew received correspondence from the renal transplant unit at the Royal Melbourne Hospital dated 18 December 2015 and 6 January 2016. Neither letters mentioned the fistula nor the aneurysms.

Dr Mathew's statement provides a detailed outline of what is best described as his usual practice when reviewing transplant patients. The most relevant issues raised in paragraphs 31 to 37 of C22 are as follows:

a) Given the frequency within which he sees patients initially post-transplant he does not make detailed notes at consultations but rather notes changes from appointment to appointment, such as change in medications;
b) Fistulas are not tied off in the first 3 months post-transplant unless absolutely necessary due to risk of infection and problems with wounds healing; and
c) Some patients' fistulas naturally resolve, others are tied off if necessary and some are never tied off.

Dr Mathew's recollection of the consultation of 19 January 2016 is set out in detail at paragraphs 38 to 50 of exhibit C22 and I repeat the paragraphs in full below:

"38. I saw Mr Summers on 19 January 2016. I went through all the parameters which I mentioned above. We discussed the renal functions, drug levels, doses of medications et cetera.

39. Before he left, he showed me the fistula. It had the aneurysm which he always had during his dialysis days. Before the transplant, Mr Summers had very dry skin, with skin lesions called puritis nodularis. These lesions are often seen in renal failure patients. On 10 February 2015 Mr Summers' GP had excised some skin from his left arm and sent it to histopathology. The report was copied to me and is attached as annexure `D.'

40. As noted above, I saw Mr Summers on 24 November 2015, about 16 days before the transplant. When I looked at the fistula on 19 January 2016, I did not think there was any significant change to the nature of the fistula. It looked the same as it had when I last saw Mr Summers before the transplant.

41. Skin normally becomes 'healthier' following the transplantation and the dryness of Mr Summers skin had almost disappeared. As the dryness disappears, this gives a shiny appearance, especially to the skin above the fistula. There was no bleeding or ulcer or scab formation on 19 January 2016. There was no clear indication to tie off the fistula immediately. I told Mr Summers and his partner Ms Harper, that we will tie this off at some stage in the future. I had in mind. Not earlier than three months, for the reasons described above.

42. I wanted to make sure that a vascular surgeon had seen the aneurysm before the transplant. I telephoned a vascular nurse and asked her whether a vascular surgeon had seen the aneurysm before the transplant. She said she would get back to me after going through the chart for Mr Summers. She rang me back. She told me that Mr Summers had been seen by the vascular surgeon prior to his transplant. The surgeon saw the aneurysm and advised no interventions.

43. Mr Summers and Ms Harper were in my rooms when I made the call to the nurse. I am reasonably certain they left by the time the nurse rang me back.

44. The vascular surgeons usually come for clinics to see dialysis patients in the renal unit on alternate Thursdays or sometimes once a month, but always on Thursdays.

45. During my conversation with the vascular nurse, I asked her when the next vascular clinic was to be held. She told me it was on the Thursday, in two days. It is possible Mr Summers and Ms Harper heard me say something to the nurse about a vascular clinic on the Thursday.

46. When the nurse rang me back and told me a vascular surgeon had seen the aneurysm before the transplant, and because I did not consider it had changed appearance since before the transplant, I did not consider it was necessary for any appointment to be made for Mr Summers to see the vascular surgeon on the coming Thursday.

47. From our conversation, Ms Harper may have misunderstood about an appointment for Thursday. During my conversation with the nurse, it is likely I was confirming with her that there was a vascular clinic on the coming Thursday. That did not mean I would want to have Mr Summers booked into the clinic, I would make that decision when the nurse advised me as to whether Mr Summers had been seen before the transplant. Ms Harper may well have heard me mention Thursday in this context, but I do not refer Mr Summers to an appointment at the Thursday clinic.

48. I did not make a note about the appearance of the fistula or the aneurysm. I would have done so if I was concerned about their appearance. I do not make a note of my call to the nurse. It was just a conversation towards the end of the consultation, after I went through all Mr Summers transplant parameters. I do however remember my called to the nurse and her call back to me.

49. As I have mentioned, most of the dialysis patients who had a fistula while on dialysis, come back with the working fistula. Also, it is not uncommon for patients to ask about the fistula when they come back after transplant.

50. Mr Summers did not mention any further concerns about his fistula in the subsequent consultations. Neither did Ms Harper."

Dr Mathew's evidence in chief on 28 February 2019 was in accordance with C22. He reiterated that he had not received any correspondence from the Royal Melbourne Hospital that alerted him to any issues regarding Mr Summers' fistula or the aneurism.

Dr Mathew also gave evidence that there is a preference for not performing any procedures for the first three months post-transplant in a transplant patient, unless essential because the patient is immune suppressed.

Dr Mathew confirmed that he did not notice an ulcer or scab on Mr Summers' arm. He accepted that a scab or ulcer indicated a breakage of the skin and a risk of the fistula rupturing. Dr Mathew was clear that if he had noted a scab or ulcer on Mr Summers' fistula he would have sent him for an urgent vascular consult.

Dr Mathew had no recollection of Mr Summers, at a subsequent consultation, stating to him the nurses had not contacted him with an appointment time to see a vascular surgeon. He

expressed the view he has no recollection of this conversation because the issue was not discussed.

Dr Mathew in his evidence in chief on 28 February 2019 confirmed that when he received a further referral from Dr S Mahjoor in the form of a letter dated the 8 February 2016, that letter made no mention of any issues with the fistula, or the aneurism on the fistula. The letter made no mention of the fact that Mr Summers had concerns about the state of the fistula and that he was bandaging it at night. Dr Mathew confirmed that had those issues been raised or addressed in the letter he would have examined the fistula at the next review. The letter was taken in and marked as exhibit C19.

Dr Mathew, like Ms Harper and Ms West, was requested to review the autopsy photographs. A result of considering the autopsy photographs was that he prepared a further statement dated 14 February 2020 which became exhibit C25.

Dr Mathew described the following points on the photograph:

a) Point A was an area of scar tissue from repeated cannulation during dialysis;
b) Pont B was the site from which Mr Summers bled; and
c) Point C was dried blood.

When giving evidence at the inquest in April 2021, Dr Mathew, like Ms Harper and Ms West, indicated the appearance of point A in the post mortem photograph was different to the appearance whilst Mr Summers was alive. He stated in his view the difference in opinion may have been caused by the bleed, the process of resuscitation and the pressure applied and use of a tourniquet.

His evidence was that point A was not an ulcerated area, nor was the skin broken at point A. His evidence was that he had observed point A previously, although point A's appearance was different. He had not observed point B which was the site of the bleed.

In April 2021, he confirmed his earlier evidence from 28 February 2019 and on some points elaborated. The following issues were of note:

a) That after transplant it is common for skin colour to improve and become more pinkish;[1]
b) That Mr Summers had a "*relatively big fistula*". It was positioned close to the wrist and prone to trauma;[2]

[1] Transcript, pages 193-194.
[2] Transcript, pages 200-201.

c) Patients on dialysis have their fistulas checked every couple of days by nursing staff. He would check the patients' fistula every six to eight weeks when they attended for an appointment. In his view it was best practice for a nephrologist to check the fistula on every appointment;[3]

d) That post-transplant the dialysis nurse no longer check the fistula on a regular basis. That patients should report concerns to their nephrologist, but as fistulas are not being repeatedly cannulated they do not need to be monitored as closely;[4]

e) That post-transplant, the flow rates; and checking the fistula for stenosis, do not need to be monitored;[5]

f) That post-transplant the fistula risk factors remained;[6]

g) That post-transplant Mr Summers was only being reviewed by Dr Mathew and his general practitioner; and

h) At an unascertained point in time, but it is assumed post-transplant, Dr Mathew indicated he was able to pinch the skin over Mr Summers' fistula. He would not have described it as paper thin;[7]

As to the appointment on 19 January 2016, Dr Mathew confirmed that he was aware Mr Summers had seen Mr Walker (the vascular surgeon) sometime in December 2015 and that no further vascular follow up was required.

Dr Mathew was questioned at length about the appointment on 19 January 2016.

He was questioned as to the following issues:

a) Why he wanted to confirm that Mr Summers had seen a vascular surgeon prior to the transplant, if he had decided that there was no issue with the fistula that required attention; and

b) Why he did not contact the Royal Melbourne Hospital for a more recent evaluation of the fistula if he had decided he should contact the vascular nurse in Launceston.

In response to those issues Dr Mathew stated:

[3] Transcript, page 217.
[4] Transcript, page 219.
[5] Transcript, page 223.
[6] Transcript, pages 223-224.
[7] Transcript, page 258.

a) He had viewed the report from Mr Walker, the vascular surgeon, and he wanted to obtain Mr Walker's thoughts on the procedure. He would obtain those thoughts through the vascular nurse;[8] and
b) That there was no harm in consulting with a colleague prior to making decisions (that being in the context of obtaining the surgeons' views through their vascular nurses about the procedure performed in December 2015);[9]
c) That it was easier to speak with his own vascular nurse rather than Melbourne;[10]
d) At the time he rang he was still making a decision about whether Mr Summers needed to see a vascular surgeon. He had decided there was no need to tie off the fistula or that urgent intervention was warranted. He simply wanted to confirm that the vascular surgeon was content with the fistula and its position on the wrist[11] and whether the vascular surgeons had raised any issues about the aneurysm;[12] and (T 416)
e) He also noted that no issue had been raised by Royal Melbourne Hospital in its letter to him dated 6 January 2016.

Dr Mathew's evidence was that he was unaware that Mr Hui had obtained Mr Summers' consent to tie off his fistulas and had completed a request for admission until he reviewed their Royal Melbourne Hospital notes in April 2021. I accept his evidence on that point.

I also accept his evidence that had he contacted the Royal Melbourne Hospital after the consultation on 19 January 2016 and been advised of the decision to tie off the fistulas, it would not have changed his clinical decision making on 19 January 2016. The provision of that information would have confirmed his views that there was no necessity to refer Mr Summers to a vascular surgeon for an urgent review.

The only effect of receiving that information from Royal Melbourne or Ms Harper would have been to cause him to contact Melbourne and make the arrangements for the tie off procedure to occur in Melbourne rather than Hobart.

Finally, Dr Mathew gave evidence regarding the pathology results obtained for Mr Summers' various appointments with him in January and February of 2016. It was his evidence the C–Reactive Protein (CRP) test results in the pathology records indicate that Mr Summers was not suffering from any form of infection prior to his death. His evidence was that the CRP

[8] Transcript, page 368.
[9] Transcript, page 380.
[10] Transcript, pages 399-400.
[11] Transcript, page 402.
[12] Transcript, page 416.

would be elevated if there was a scab, ulcer or breakage of the skin of the fistula. Thinning of the skin would not elevate the CRP.

Ms Evans, a nurse attached to the Renal Unit who had been involved in Mr Summers' haemodialysis was called to give evidence. Taken in and marked as exhibit C15 was a letter she had authored addressed to the Coroners Associate dated 26 September 2018. She confirmed the contents of that letter as true and correct.

Ms Evans in her evidence in chief outlined that all patients, including Mr Summers, receive education on managing a fistula bleed and are provided with an emergency kit. She stated that patients also receive education on identifying risks and are encouraged to immediately report any changes to their fistula. Ms Evans stated that patients could telephone or attend the Renal Unit if they wanted their fistula checked.

Ms Evans also gave evidence about the procedure for a Renal Unit patient to obtain an appointment with a vascular surgeon.

She outlined the procedure as follows:

a) Referrals can be made by the patient's general practitioner or nephrologist;
b) Nurses assisting with haemodialysis can refer the patient to the nephrologist, who can refer the patient to the vascular surgeon; and
c) Nurses assisting with haemodialysis can refer the patient to the Emergency Department and the patient can be reviewed by a junior vascular doctor, who might refer the patient to a vascular surgeon.

The final issue addressed by Ms Evans in her evidence in chief was what effect if any would an individual being on leave have on the making of an appointment with a vascular surgeon. Her evidence was clear that an individual being on leave would not disrupt the process for appointments being made with vascular surgeons.

The medical evidence

Other than Dr Mathew, the following medical practitioners gave evidence at the inquest:

a) Dr A Bell, an experienced medical advisor attached to the Coroner's Office;
b) Dr T Brain, the pathologist who performed the autopsy; and
c) Mr A Hui, consultant surgeon and current Head of Transplant Surgery at St Vincent's Hospital Melbourne, who at the relevant time was training as a surgical registrar.

The combined effect of the medical practitioners' evidence was that:

a) The presence of a scab;
b) The presence of a break in the skin, an ulcer or bleeding or other signs of infection; and
c) The presence of paper thin skin.

on a fistula required the immediate referral to a vascular surgeon for review. Further there was consensus that unless absolutely necessary, surgery would not be performed on a transplant patient for the first three months post-transplant as they are immune compromised.

Dr A Bell prepared a number of reports dated 13 November 2018 (C18), 12 June 2020 (C27) and 10 March 2021 (C28). The last two mentioned reports were made after the autopsy photographs were provided to him.

Dr Bell expressed the view that the presence of a scab on the aneurysm on the fistula required urgent medical attention.

His evidence on 28 February 2019 confirmed this and he accepted that he could not assist in the factual dispute that then existed as to whether a scab was present on 19 January 2016.

After being shown the autopsy photographs he expressed the view that point A was an eschar. An eschar is a *"slough or piece of dead tissue that is cast off from the surface of the skin, particularly after a burn injury or seen in gangrene ulcer, fungal infections, over which the tissue is not viable. In other words some people would call it a scab."* Dr Bell expressed the view that the presence of an eschar should have caused Dr Mathew to undertake an ultrasound of the fistula.

Dr Bell accepted that he could not rule out the possibility that point A was scar tissue. Dr Bell also stated that if point A looked like it did on the autopsy photograph in real life, it was his opinion that it should have been ultra-sounded.

Dr Brain was the pathologist who performed the autopsy upon Mr Summers. The autopsy report he prepared was tendered as C4.

He made the following comments regarding the appearance of the fistula:

> *"The aneurysm involved is a disc of raised skin, some 5.0x4.0x possibly 2.0cm and on the lower margin there is a 4.0-5.0mm diameter deficient which is probed and enters this dilated vessel with some surrounding mural thrombi's. With this sized hole and an aneurysm with mural thrombus making it unlikely to be totally collapsible. It would be extremely difficult to totally impeded blood flow."*

Dr Brain was asked to comment on the autopsy photographs. An affidavit was prepared and sworn on 9 March 2021.

He noted that point B was the site of the bleed. The top area or Point A was not the site of the bleed and could not be probed.

He described the top area as a circular patch of scar material, with no granulation over its surface, it had a flat white surface. It had an attached underlying vessel; the skin was very thin and any trauma would have resulted in it bursting.

He stated point A may have given the lay person an appearance of a scab like wound but it was not.

Dr Brain gave evidence at the resumed inquest on 29 March 2021. At the inquest, C30 was tendered. Dr Brain marked point A, B and C on the lower aneurysm and D as the upper aneurysm on Mr Summers' fistula. Points A and B were in accordance with his affidavit.

His evidence can be summarised as follows:

a) Medical intervention and compression would not have changed the nature of the aneurysm;[13]
b) In his opinion the vessel wall was damaged with a thrombus and had been for some time;[14]
c) It was a large aneurysm and would probably have appeared larger in life;[15]
d) The area of scarring surrounding points A, B and C was very thin and any trauma would have resulted in it bursting (this area was circled on C30);[16]
e) He said, "*Point A is in a little circular patch of pink. The overlying skin is very white and scarred*."[17];
f) He was unable to guarantee the pink area was a scar;[18] and
g) The thinned out skin over the aneurysm would have looked much the same for some time prior to Mr Summers' death.

Mr Hui was called to give evidence in August 2021 to assist in the interpretation of notes prepared by him and in May 2022 to respond to the alleged criticisms of himself and the Royal Melbourne Hospital. Mr Hui made two statements. The first dated 9 August 2021,

[13] Transcript, pages 134-135.
[14] Transcript, page 135.
[15] *Ibid.*
[16] *Above n* 14.
[17] Transcript, pages 135-136.
[18] Transcript, page 146.

prepared by counsel assisting and a second statement dated 13 May 2022, prepared by his solicitors.

As noted earlier the criticism of Mr Hui and the Royal Melbourne Hospital were abandoned by Ms Davies, except the one issue I have identified.

At the time, Mr Summers was a patient at the Royal Melbourne Hospital, Mr Hui was two and a half years into his training as a surgical registrar. Not surprisingly, Mr Hui had no actual recollection of treating Mr Summers and was reliant upon the medical records maintained by the Royal Melbourne Hospital.

The relevant aspects of Mr Hui's evidence can be summarised as follows:

a) Mr Hui assessed Mr Summers' fistula as an inpatient on 11, 14, 15 and 16 December 2015 and outpatient clinic 5 January 2016. He confirmed the functioning of the fistula by looking at it, palpating it, assessing the thrill and bruit and assessing the integrity of the overlying skin;
b) Similar assessments were conducted by other members of the renal and surgical teams over the course of Mr Summers' admission;
c) No issues of concern were identified;
d) Mr Summers was placed on a category two waitlist for excision by Mr Hui on 5 January 2016 and Mr T Furlong authorised the procedure. That was an elective procedure. Mr Summers was placed on the category two waitlist on the basis that a category three waitlist would mean Mr Summers' procedure would not occur for years and a category two designation meant that the surgery would most likely be performed in six to twelve months rather than the designated three months. Such a designation was consistent with there being no urgency to the procedure;
e) That there was no mention of the proposed procedure in the two letters generated by the Royal Melbourne Hospital addressed to Dr Mathew and that it would have been good practice to do so;
f) That he agreed with the interpretation and description given by Dr Mathew in C35 of the Royal Melbourne Hospital notes;
g) That the classical indicators of an unstable aneurysm are, sudden increase in size, infection, ulceration or bleeding;
h) Mr Summers did not present with any of these indicators whilst a patient of the Royal Melbourne Hospital;
i) A nephrologist would be able to identify and convey to a vascular surgeon any change in an aneurysm;

j) The risk to an aneurysm related more to changes than its specific size. Utilising a fistulogram was the gold standard for assessing structural changes;

k) An ultrasound would not have been of any utility in identifying clinical signs of risk; and

l) The fistula was Mr Summers' lifeline should he reject the transplant and as such it was necessary to make sure that the fistula remained functioning in the first three months after transplant. That was achieved by assessing the fistula in a similar manner as pre transplant.

Based upon Mr Hui's evidence which was not challenged by Ms Harper's counsel, no finding can be made criticising the treatment of care provided by Mr Hui or the Royal Melbourne Hospital. As to the failure to provide information regarding the tie off procedure, I note the evidence of Dr Mathew that the provision of that information to him would not have altered his clinical decision making on 19 January 2016.

There can be no suggestion the failure to provide the information was in anyway causative of Mr Summers' death.

Mr Hui declined to provide an opinion as to what point A was on the autopsy photograph and indicated Dr Brain was best placed to comment on point A.

Resolution of the issue as to whether a scab was present on Mr Summers' fistula on 19 January 2016

For the reasons which follow, I cannot make a finding that a scab was present on Mr Summers' aneurysm on his fistula on 19 January 2016.

Where the evidence of Dr Brain's conflicts with Dr Bell's, I prefer Dr Brain's evidence.

Whilst I accept based on Dr Brain's evidence that point A on C30 may appear to a lay person to have the appearance of a scab and I accept that is how Ms Harper and Ms West described what they observed, I am not satisfied it was a scab.

I note Mr Hui declined to provide an opinion as to what was depicted at point A and indicated that I should defer to the opinion of Dr Brain on this issue.

I agree with the assessment made by Mr Hui that the only medical practitioner to examine the fistula and surrounding tissue post death was Dr Brain.

Dr Brain's description of point A is recorded above. He described the area around points A and B as scar tissue although Dr Brain was less certain about the pink area. Both Ms Harper and Ms West nominated point A as the site of the scab.

I am further satisfied that there was no scab on the aneurysm on 19 January 2016 because given the consensus of the medical evidence that a scab presents as an emergency situation requiring immediate attention, it is inconceivable that Dr Mathew would observe a scab on the aneurysm and not take immediate action.

Mr Summers did not mention the presence of a scab to his general practitioner when he reviewed him on 8 February 2016. Those notes are as contained in exhibit C17 and they make no mention of the fistula or the presence of a scab on the fistula. It appears from the notes Dr Mahjoor obtained a history from Mr Summers and took his blood pressure. The only inference to be drawn, despite Ms Harper's recollection that Mr Summers was concerned about his fistula, is that he made no mention of it to Dr Mahjoor. That is inconsistent with the level of concern Ms Harper claims Mr Summers had about his fistula.

Despite the facts that there are many deficiencies in Ms Harper's evidence which would affect the reliability of her recall regarding various issues, I am satisfied that both she and Ms West observed something on Mr Summers arm at point A that they both described as a scab. Ms Harper's and Ms West's observations and description of point A is consistent with Dr Brain's evidence that point A would look like a scab to a lay person.

That 'something' was of sufficient concern for Mr Summers to raise its existence with Dr Mathew.

There is no doubt that Mr Summers discussed the state of his fistula with Dr Mathew on 19 January 2016 and that is accepted by Dr Mathew.

What happened at the appointment on 19 January 2016

There is a clear conflict in the evidence given by Dr Mathew and Ms Harper regarding what occurred at the consultation of 19 January 2016.

Where there is any conflict in the evidence between Dr Mathew and Ms Harper, I prefer the evidence of Dr Mathew.

I should note and commence with the observation that I accept that Ms Harper was doing her best to recall traumatic events that occurred a significant period of time ago.

I have also taken into account the fact that she and Mr Summers have spoken to, received advice from, and have attended upon multiple medical professionals in various fields in various hospitals over a lengthy period of time.

Notwithstanding those observations I find myself in a position that I am not able to rely upon her recollections of events.

I will outline the deficiencies in her evidence that lead to that conclusion.

Ms Harper identified on or around 19 January 2016 as the date that Mr Summers raised the state of his fistula with Dr Mathew. The identification of that date was important as it set the time frame Dr Mathew was required to consider. It identified this conversation occurring shortly after Mr Summers returned from Melbourne. If that date was accurate it was the 3rd consultation between Dr Mathew and Mr Summers. The date sets a time frame within which the scab had developed.

As such according to Ms Harper's timeline the scab developed within 8 days from discharge from the Royal Melbourne Hospital. The medical evidence suggested that it could take weeks for an aneurysm or pseudo-aneurysm to change. The timeframe identified by Ms Harper is inconsistent with the observations of medical practitioners at the Royal Melbourne Hospital.

When questioned about this date by Dr Mathew's counsel and after being given the opportunity to consider her affidavit, Ms Harper replied "*I know what I said in the affidavit, but the dates I don't remember when we actually said about the scab. I mean I know I've said the 19th in my affidavit but I mean it could have been the 1st of February I mean the dates in my head are just messed up. I don't know when it was, I just said the 19th.*"

This arbitrary nomination of such an important date affects her credit considerably.

I also note that her timeframe in which the "scab "developed is not consistent with Ms West's recollection. Ms West recalls the "scab" developed near the end of January early February. She recalls this because Ms Summers started wearing a bandage to protect the fistula.

Another issue which affects Ms Harper's credibility is what I would describe as attributing similar comments to various individuals and offering the same reasons for things not occurring.

For example in her affidavit dated 11 October 2017 she stated as follows:

> *"Dr Mathew didn't like the look of the fistula and told us that it had to be tied of, so he contacted the Renal Unit at the LGH and informed them he would like Nick to see the specialist on the following Thursday. Due to circumstances this appointment was never made. Nick did ring the LGH and ask to see a specialist, however he was told that they were away on holiday."*

In her affidavit dated 12 April 2018 the following statement was made:

> *"The appointment for Thursday was never made by the Renal Staff that is why we never went. When we attended Dr Mathew after this he told us to make our own appointment and contact the Renal Staff, we did, however, and we were told the lady who makes the appointments was on holidays for a week."*

Further in the same affidavit:

> *"I remember before we left Melbourne after the transplant that one of the doctors told Nick that he would like him to return in March to have the fistulas tied off because he did not like the look of them."*

In her statement dated 27 September 2021 Ms Harper said:

> *"I recall on one occasion the Dr actually had a look at Nick's fistula and said they would like to try and tie of fit off when he gets his stent taken out. I remember he said to tie it off because they didn't like the look of how big it was. I do not recall the name of the Drs Nick saw as he saw different Drs each time.*
>
> *One of the Drs also told Nick that when he got his stent taken they would try and do the procedure then so it was all in one.*
>
> *Then a couple of days later I think Nick seen another Dr and asked about the fistulas and he said he was not sure because everyone's going on holidays for Christmas."*

The above passages are relevant in that there is a recurring theme of doctors not liking the look of the fistula and procedures or appointments not being made because people are on holidays.

It seems to me that even if such conversations occurred I could not attribute the conversations to occurring in either Launceston or Melbourne. With respect I believe Ms Harper has no real recollection of when such conversations occurred and with whom. The statements appear to be a reconstruction rather than a true recollection.

Further the above statements are in direct conflict with the statements of Ms Evans, Mr Hui and the medical records maintained by the Royal Melbourne Hospital.

It is incomprehensible that a hospital such as the Royal Melbourne would delay surgery on a fistula because "e*veryone's going on holidays*". That is in direct contrast to Mr Hui's evidence in response to that suggestion.

The comment about the fistulas needing to be tied of because of how big it was being made by an unknown doctor in Melbourne is contrary to the observations of Mr Hui when he assessed the fistula and obtained Mr Summers consent for the tie off procedure to occur.

Ms Evans was clear that an appointment for a vascular surgeon in Launceston would not be affected by any individual being on leave.

Ms Harper indicated in her evidence in chief that she and Mr Summers were unaware a fistula could be checked at the Renal Unit. In her affidavit dated 12 April 2018 she stated *"Nick never attended the Renal Unit to get his fistula examined because you only go there if you have an appointment or are on dialysis."* This passage of evidence conflicts with the evidence of Ms Evans.

Ms Evans made it clear that patients were advised they could call or attend the Renal Unit if they wanted to have their fistula checked.

The most generous explanation is that Ms Harper has repeatedly misunderstood conversations with treating medical practitioners and nurses.

I also had the opportunity of observing Ms Harper in the witness box. She was a poor historian, when asked for detail as to events from counsel she would retreat to answers of *"don't recall, or can't remember."*

Whilst Dr Mathew at times gave inconsistent evidence I note that he gave evidence on a number of occasions and was cross examined at length by counsel assisting and Ms Davies.

Where the evidence of Ms Harper conflicts with that of Dr Mathew, I prefer the evidence of Dr Mathew.

I prefer Dr Mathew's evidence that he examined the fistula, contacted the renal nurse to confirm Mr Summers had been reviewed by a vascular surgeon prior to the transplant and thereafter decided no further action was warranted.

I am satisfied that he made a proper assessment of the fistula on 19 January 2016 and accept the conclusion he reached that there was no necessity for Mr Summers to be referred to vascular review.

I do not accept Ms Harper's evidence that Dr Mathew stated he did not like the look of the fistula and that it needed to be tied off. I do not accept her evidence that he requested the renal clinic nurses to obtain an appointment with a vascular surgeon and that at some later point told Mr Summers he would need to arrange that appointment himself.

Appearance of the fistula on 19 January 2016

Dr Mathew's evidence was the fistula had not changed appearance post-transplant. He did not observe a scab or ulcer on the fistula .Once he was advised by the Renal Unit nurse that Mr Summers had seen a vascular surgeon pre-transplant he saw no necessity to have a vascular surgeon review the fistula. As noted above I accept that evidence.

He has since stated that with the knowledge of the prosed tie off procedure recommended by Mr Hui, his clinical decision making would have remained the same. I accept that evidence.

The events of 16 February 2016

At approximately 5.20am on 16 February 2016 Mr Summers woke up and went to the toilet. Whilst on the toilet his fistula has perforated. He called out to Ms Harper for assistance. She responded immediately. Upon entering the toilet she observed a significant quantity of blood. She ran to the bathroom, obtained a towel and wrapped it around the perforated fistula and tied the towel tightly.

She then ran to the kitchen, located her phone and called 000. Ms Harper then returned to the toilet, moved Mr Summers off the toilet, elevated his arm and applied pressure to the towel.

Her actions were in accordance with the advice she had received from the Renal Unit to control a bleeding fistula.

Mr Greg Knight, who is a Volunteer Ambulance Officer, received a pager call at 5.36am advising him to attend a haemorrhage/laceration incident at 15 Catherine Street, Longford.

He collected his partner Jeremy Stagg from his residence at Longford and arrived on scene at 5.41am.

Upon entry to the premises Mr Knight observed a considerable quantity of arterial blood on the floor of the toilet. He estimated the blood to have formed a pool with a circumference of 400mm. A trail of blood led from the toilet to the bathroom where Mr Summers was situated. Mr Summers was leaning against a pedestal hand basin with his elbow on the edge of the bath.

Mr Knight formed the view there was little he could do by way treatment. He advised Ms Harper to keep pressure applied to the towel.

An ambulance crew consisting of Intensive Care Paramedic Jillian Stott and Kahlua Smith arrived at the scene at 5.54am.

Ms Stott and Ms Smith entered the premises and made similar observations as to Mr Knight regarding the amount of blood Mr Summers had lost. Ms Stott estimated that by the time they had arrived Mr Summers has lost a litre of blood.

Ms Smith immediately applied pressure to Mr Summers' arm. Ms Stott took a history from him and Ms Harper. At this time Mr Summers was still conscious and capable of communicating with Ms Stott. Ms Stott described Mr Summers as being distressed, emotional and pale.

Prior to removing the towel Ms Stott prepared bandages and dressings so they could be applied immediately upon the towel being removed.

Ms Stott removed the towel and blood spurted from the wound. Ms Stott immediately applied a dressing and began bandaging the site. The bandage and dressing was insufficient and Ms Stott applied further bandages and dressings. The wound continued to seep so Ms Smith applied manual pressure above the site of the bleed. This action was effective and stopped the blood flow.

At 5.58am Mr Peter James, an intensive care paramedic arrived at the scene as backup. He made similar observations of the scene as the earlier arriving paramedics. He assessed that Mr Summers had suffered an arterial bled from the colour of the blood he observed. When he first arrived he would have given Mr Summers A GCS of 15[19] but noted he was deteriorating rapidly.

Both he and Ms Stott applied further dressings and bandages. Mr James applied a broad bandage as tightly as possible above the site. That slowed the blood but did not stop it. He then applied another bandage directly over the bleeding site. He assessed Mr Summers' jugular veins to see if they were an option for cannulation. He formed the view they were not.

Ms Stott noted that Mr Summers had a pulse rate of 60 bpm.

Mr Summers was moved from the house to the ambulance. Ms Stott recalls Mr Summers was losing consciousness. He was placed in the back of the ambulance. Ms Stott described him as pale, grey looking. Mr James assessed his GCS as 3. Mr Summers began to slur his words then stopped speaking.

[19] An assessment of patient's consciousness, in this instance, a score of 15 means that Mr Summers was fully conscious.

Mr Summers lost consciousness. Further treatments were attempted to be administered that could not be administered whilst the ambulance was in transit. An attempt was made to obtain IV access via his neck. IO access was attempted but was unsuccessful as only paediatric needles were available. Those needles could not penetrate Mr Summers' bone. Mr Summers' pulse rate fell below 60 bpm. He suffered seizure activity and stopped breathing. Ms Stott noted PEA (pulseless electrical activity) on the ECG, however Mr Summers had no pulse and had stopped breathing. His pupils were fixed and dilated.

He was intubated and CPR commenced. Adrenalin was administered. Ms Stott and Mr James continued with CPR until Mr Summers was handed over to the resuscitation unit at the Launceston general Hospital.

Sadly Mr Summers could not be resuscitated and was pronounced dead.

The cause of death

Dr Brain in the autopsy report opined that Mr Summers' cause of death was *"Heart failure related to exsanguination due to accidental rupture of an A-V fistula right forearm*."

Ms Harper indicated that the 'scab' had come off and the fistula had burst.

The information relayed to attending paramedic Ms Stott was *that "recently (maybe days ago) the skin over the right [Fistula] was a bit scabby. The patient had put a bandage on this. He got up to go to the toilet at 5:30 ish and had either pulled or bumped the bandage and this had caused an arterial bleed."*

Paramedic Ms Smith received similar information but cannot recall from whom. She recalls someone said that *"he had a fistula, the skin had broken down and he bumped the scabs off which caused the bleeding"*.

I have made a finding that there was no scab on the fistula. I am satisfied that site A, which is the area identified as the' scab', was not the site of the bleed.

Further the intact nature of site A at autopsy is inconsistent with the cause of death being as described above.

Dr Brain's opinion was that the area around points A and B on the fistula was very thin and that any trauma would have caused a spontaneous bleed.[20]

[20] Transcript, pages 137-139.

In Mr Hui's opinion the most likely cause of death, after a pseudo aneurysm and infection, was trauma to the aneurysm/fistula.

Dr Brain ruled out a pseudo aneurysm and infection as a cause of death.

Mr Hui noted that the dimension of point B and the time that elapsed before Mr Summers' death pointed to the fact it was trauma rather than a spontaneous bleed that led to the rupture of the fistula.

If the aneurysm spontaneously burst Mr Hui opined that the size of the hole would have been much larger (the size of a 20 or 50 cent piece) resulting in death in a matter of minutes.

It was known that Mr Summers was bandaging the fistula. Mr Hui opined that the bandaging of the fistula would not be recommended by him and the removal of the bandage itself could be sufficiently traumatic to cause the bleed.

Mr Hui's evidence was that what occurred to Mr Summers is not that uncommon and he treats 5 to 6 cases a year.

On all these issues I accept the evidence of Mr Hui.

I therefore find the cause of Mr Summers death was heart failure related to exsanguination due to a traumatic rupture of an AV fistula on the right forearm.

Should Dr Mathew have examined the aneurysm/fistula after 19 January 2016?

I have made a finding that as at 19 January 2016, no scab was present on the aneurysm on Mr Summers' fistula and that the state of his fistula did not require a referral to a vascular surgeon.

I note in his response to the Coroner's Office dated 8 March 2018 that Dr Mathew recorded that he observed *"slightly thinned out skin on top off the fistula."*

That observation must have related to the examination on 19 January 2016.

Based on the evidence that other than the one appointment with Dr Mahjoor for a referral, Dr Mathew was primarily responsible for Mr Summers' medical treatment post-transplant.

Dr Mathew has confirmed in his evidence the dates he reviewed Mr Summers. His evidence based on the pathology records is that there was no evidence of infection, which included any suggestion of a scab, ulcer or break of the skin.

His evidence regarding his examination of the fistula other than on the 19 January 2016 was contradictory but ultimately that it was not his practice to routinely examine the fistula post-transplant as in his view, the risks were reduced as the fistulas was no longer being cannulated. His evidence was that he saw the fistula when Mr Summers attended for appointments.

His evidence was that dialysis patients are well versed about the risks of fistulas and the monitoring of changes. This evidence is corroborated by the fact Mr Summers raised with him the state of his fistula on 19 January 2016.

Based on the evidence it is clear Mr Summers did not raise the state of the fistula with Dr Mathew after 19 January 2016. He appears not to have mentioned the fistula to Dr Mahjoor.

What is known is that by the date of his death Dr Brain described the skin as very thin.

Mr Hui gave evidence that "*paper thin skin*" was something that would have been considered on routine examinations. A finding of paper thin skin would prompt immediate action and surgical exploration because it poses a risk of rupture.

His evidence was in the absence of a pseudo aneurysm or infection skin over the fistula would not deteriorate rapidly and allow for the skin to be monitored. Pseudo aneurysms and infections could cause the skin to deteriorate rapidly (in a matter of hours).

The thinness of skin could only be assessed on a clinical examination. Whilst an inpatient Mr Summers' fistula was examined regularly. The frequency with which it was examined as an outpatient is not known with any certainty.

The fistula was examined to confirm that it remained functioning, as if the transplant organ was rejected Mr Summers would require use of the fistula.

The evidence of Mr Hui does not sit comfortably with Dr Mathew's evidence regarding the practice of Dr Mathew.

Dr Mathew clinically examined the fistula on 19 January 2016 and reached the conclusions that I have made finding about.

Other than observing the fistula at the balance appointments no further examination of the aneurysm/fistula was undertaken.

I accept that if Dr Mathew observed anything of concern in relation to the fistula he would have acted promptly.

The question is, should he have undertaken further examinations of the fistula and aneurysm after 19 January 2016?

I have no evidence as to the frequency with which a nephrologist should examine a fistula with aneurysms post-transplant after discharge from the care of a transplant hospital. I have the evidence regarding the frequency with which the fistula was examined as an inpatient. I have limited evidence as to the frequency with which the fistula was examined as an outpatient. Ms Harper did not provide evidence on this issue. The only inference open to me is that the examination of the fistula was not as regularly performed once Mr Summer's became an outpatient.

I cannot make a positive finding that the failure by Dr Mathew to examine the aneurysm/fistula post 19 January 2016 was causative of Mr Summers death because:

a) I know that as at 19 January 2016 there were no issues with the aneurysm/fistula;
b) I am unable to ascertain a date the skin began to thin;
c) I am unable to make any finding as to how quickly the skin thinned;
d) On Ms West's timeline the 'scab' appeared late January early February;
e) It appears no mention was made of the scab to Dr Mahjoor on 8 February 2016; and
f) The pathology results did not suggest any sign of infection.

Depending on when the skin commenced to thin, according to Ms West's timeline, Dr Mathew saw Mr Summers a maximum of 5 further times: 29 January, and 2, 5, 6, 12 February 2016; or a minimum of 3 times: 5, 6 and 12 February 2016.

Whilst no criticism can be made of Dr Mathew for not conducting further clinical examinations for the reasons I have advanced above, I do comment that any opportunity to identify the skin thinning on the aneurysm/fistula by a clinical examination was lost as no further clinical examinations occurred.

Review by Ambulance Tasmania

As a result of Mr Summers' death a review was conducted by Ambulance Tasmania. That review encompassed the response of the volunteer and paramedic crews who attended upon Mr Summers. In particular a review of the training they had received to control arterial haemorrhage and the equipment available to the responding crews.

The following exhibits were tendered addressing these issues:

a) C14 – letter from Ambulance Tasmania, dated 9 November 2016 to the Coroner's Associate with annexures comprising the following documents:
   i. Clinical Case Review Report;
   ii. Ambulance Tasmania–Clinical Work Instruction CAT;
   iii. Learning Package 2017 Bone Injection Gun;
   iv. Learning Package 2017 Combat Application Tourniquet; and
   v. Ambulance Tasmania–Clinical Work Instruction Bone Injection Gun.

Dr Georgakas, the Director of Medical Services for Ambulance Tasmania gave sworn evidence at the Inquest. I accept his evidence.

Dr Georgakas confirmed that in February of 2016, both volunteer and employed paramedic crews had received training in haemorrhage control. The volunteer members have First Aid level training and qualifications which broadly encompasses haemorrhage management, but not specifically AV fistulas.

The methods taught to volunteers and employed paramedics to control haemorrhaging as at 16 February 2016 was as follows:

(a) Application of direct pressure to the site (gloved fingers);
(b) Tight bandaging; and
(c) Manual compression of arterial supply to the limb.

Dr Georgakas confirmed that a review was conducted as a result of Mr Summers' death and a number of recommendations were made and implemented. They were as follows:

(a) Training in the use of and inclusion in ambulances of Combat Tourniquets;
(b) Training in the use of and inclusion in ambulances of Bone Injection Guns (BIG); and
(c) Haemorrhage control was introduced into the annual continuing professional development programme.

All recommendations have been implemented by Ambulance Tasmania.

No criticisms can be made of the volunteer crew members or the employed paramedics who attended upon Mr Summers. Based on the evidence of Dr Georgakas, I am satisfied that attending paramedics took all appropriate steps to control Mr Summers' perforated fistula. I accept Dr Georgakas opinion that it is extremely difficult to control an arterial bleed.

I am satisfied from the evidence of Dr Georgakas that volunteer and employed crews had received appropriate training in haemorrhage control and that continued training in

haemorrhage control now occurs as part of a crew member's annual professional development.

Mr James, one of the attending paramedics, in his affidavit sworn 19 March 2018 made the following comments which are relevant to this inquest:

> "*The patient was conscious and talking at this point, however, he was pale and in trouble in my view. Estimated he had a GCS of around 15 but he was deteriorating rapidly.*
>
> *At this point my preference would have been to apply an arterial tourniquet but it was not available as Ambulance Tasmania had removed them from the vehicles sometime earlier, perhaps a few years earlier.*
>
> *I have dealt with a bleeding fistula before, in a particular case I placed a broader rubber arterial bandage above the haemorrhage site which actually stopped the haemorrhage."*

Ms Stott in her affidavit dated 15 March 2018 made the following comments:

> *"When I arrived at the scene I could see the situation was serious as the patient was pale and there was a lot of blood loss. As things continued and the fact three of us could not get IV access I knew that his body was starting to shut down. The whole time we could not get a blood pressure. The priority was to stop his bleeding. We worked on the patient to stem the flow, while the others were preparing for us to remove him to get him into the ambulance.*
>
> *At the time Peter had access to paediatric intraosseous needles, he tried two but they did not have enough force to be effective. Since this incident we now have BIG's (bone injection guns) for adults and combat application tourniquets. I have received training in how to use both of these items. If these items were available they may have been of assistance for this patient and improved his outcome."*

As a result of the review following Mr Summers' death and based on the sworn testimony of Dr Georgakas, I am satisfied that Ambulance Tasmania have trained paramedics in the use of Combat Arterial Tourniquets (CAT) to control haemorrhages and that CATs now form part of the inventory of ambulances.

Whilst I cannot state with any certainty that if a CAT had been available to paramedics to use on Mr Summers he would have survived, I am satisfied on the balance of probabilities that his chance of survival would have been improved.

I note Mr James asserts tourniquets formed part of ambulance Tasmania inventory but had been removed prior to Mr Summers' death. This statement in his affidavit conflicts with Dr Georgakas' evidence. Dr Georgakas confirmed on two separate occasions that tourniquets,

to the best of his recollection, did not form part on an ambulances inventory. Prior to Mr Summers' death, tourniquets were being assessed as to whether they would form part of Ambulance Tasmania's inventory.

I note that the attending paramedics had difficulty in obtaining intravenous access as Mr Summers' veins were collapsing due to loss of blood. Mr James attempted to utilise a paediatric intraosseous needle to obtain access. The paediatric needles were unable to penetrate Mr Summers' bone. As a result of the review into Mr Summers' death, Bone Injection Guns (BIG) have been introduced into Ambulances and paramedics have received training in the use of these devices. These devices allow intravenous access to be gained after a needle is injected directly into a bone.

Again whilst I cannot say with any certainty that had a BIG been available to paramedics, Mr Summers would have survived, I am satisfied on the balance of probabilities that Mr Summers' chance of survival would have been improved.

I am satisfied Ambulance Tasmania has taken appropriate steps to address issues raised by Mr Summers' unfortunate death.

Formal findings

The following findings are made pursuant to Section 28 of the *Coroners Act* 1995:

(a) The identity of the deceased is Nicholas John Summers;
(b) How Mr Summers died is addressed in detail in these findings;
(c) The cause of Mr Summers' death was heart failure;
(d) Mr Summers died on the 16 February 2016 at the Launceston General Hospital situated at Launceston Tasmania; and
(e) *Births Deaths and Marriages Act* 1999 provides no guidance as to the particulars required to register a death under the Act, something which has been commented upon several times in the past. I am unable to make a finding under 28(1)(e) of the Act.

Comments and Recommendations

I am satisfied that Ambulance Tasmania have conducted a full review into the circumstances surrounding Mr Summers' death. I note the introduction of CATs and BIGs into Tasmanian Ambulance inventory and that officers have received appropriate training. I therefore do not need to make any further recommendations regarding Ambulance Tasmania.

I express my thanks to Ms Jones and Ms Bill, counsel assisting along with the helpful submissions on counsel.

In concluding, I convey my sincere condolences to the family of Mr Summers.

Dated 15 July 2022 at Hobart in the State of Tasmania.

Andrew McKee
CORONER