CORONER'S COURT
OF NEW SOUTH WALES

Inquest:	Inquest into the death of Anthony Barrett
Hearing dates:	7 to 11 March 2022
Date of findings:	25 March 2022
Place of findings:	Coroner's Court of New South Wales at Lidcombe
Findings of:	Magistrate Derek Lee, Deputy State Coroner
Catchwords:	CORONIAL LAW – care and treatment, Fairfield Hospital, left total knee replacement surgery, superior mesenteric artery stent, coeliac artery stent, vascular consult, pre-admission clinic, pre-operative care, medical clearance prior to surgery antiplatelet therapy, clopidogrel, cartia, tranexamic acid
File number:	2019/188251
Representation:	Dr P Dwyer, Counsel Assisting, instructed by Ms T Bird (Crown Solicitor's Office) Ms K Burke for Dr T Sehgol, instructed by Moray & Agnew Lawyers Mr M Lynch for Dr C Dave, Dr Y Levy, Dr T Shih & Dr S Weston, instructed by Holman Webb Lawyers Mr P Rooney for South Western Sydney Local Health District, instructed by McCabes

Findings:

Anthony Barrett died on 30 September 2018 at Liverpool Hospital, Liverpool NSW 2170.

The cause of Anthony's death was bowel ischaemia which occurred as a result of acute thrombosis of Anthony's superior mesenteric artery and coeliac artery stents leading to occlusion of both stents.

Anthony's death was the unexpected outcome of a medical procedure. Although a pre-operative consultation to obtain medical clearance for Anthony prior to left total knee replacement surgery had been requested, this request was not identified and actioned prior to the surgery. Had such a pre-operative consultation occurred it would have mitigated against the risk of occlusion of Anthony's superior mesenteric artery and coeliac artery stents.

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1. Introduction

1.1 In November 2017 Anthony Barrett was placed on a waiting list for elective left total knee replacement surgery. As part of the preparations for surgery, Anthony's orthopaedic surgeon requested that Anthony be reviewed by a vascular surgeon to determine his readiness for surgery. This review was requested because two years earlier Anthony had stents inserted in his mesenteric artery. However, the review never took place.

1.2 On 28 September 2018 the left total knee replacement surgery proceeded at Fairfield Hospital without complications. However, after being transferred to a recovery ward Anthony began to experience severe abdominal pain and his blood pressure was noted to be elevated. Investigations revealed that Anthony had developed bowel ischaemia and he was transferred to Liverpool Hospital for emergency surgery. Further surgery took place on 29 September 2018. Despite these interventions, Anthony's condition continued to deteriorate irreversibly and he was tragically pronounced deceased on the morning of 30 September 2018.

2. Why was an inquest held?

2.1 Under the *Coroners Act 2009* (**the Act**) a Coroner has the responsibility to investigate all reportable deaths. This investigation is conducted primarily so that a Coroner can answer questions that they are required to answer pursuant to the Act, namely: the identity of the person who died, when and where they died, and the cause and the manner of that person's death.

2.2 Certain deaths are reportable to a Coroner. Some examples of reportable deaths are where the cause of a person's death is not due to natural causes, or where the cause or manner of person's death may not immediately be known. In Anthony's case, his death was not reported to a Coroner. Instead, a medical certificate as to the cause of Anthony's death was issued by a doctor. However, a determination was later made to assume coronial jurisdiction over Anthony's death so that an investigation could be conducted regarding the manner of, or the circumstances surrounding, Anthony's death. The coronial investigation focused on the steps taken to prepare Anthony for surgery on 28 September 2018 and why the surgery proceeded despite a critical step not being taken. In addition, the coronial investigation also sought to understand more broadly what factors contributed to this step not being undertaken and to identify potential areas of learning and improvement within the South Western Sydney Local Health District (**SWSLHD**), the Local Health District within which both Fairfield Hospital and Liverpool Hospital are situated. For all of these reasons, an inquest was required to be held.

2.3 In this context it should be recognised at the outset that the operation of the Act, and the coronial process in general, represents an intrusion by the State into what is usually one of the most traumatic events in the lives of family members who have lost a loved one. At such times, it is reasonably expected that families will want to grieve and attempt to cope with their enormous loss in private. That grieving and loss does not diminish significantly over time. Therefore, it should be acknowledged that the coronial process and an inquest by their very nature unfortunately compels a family to re-live distressing memories several years after the trauma experienced as a result of a death, and to do so in a public forum. This is an entirely uncommon, and usually foreign, experience for families who have lost a loved one.

2.4 It should also be recognised that for deaths which result in an inquest being held, the coronial process is often a lengthy one. The impact that such a process has on family members who have many unanswered questions regarding the circumstances in which a loved one has died cannot be overstated.

2.5 Inquests have a forward-thinking, preventative focus. At the end of many inquests Coroners often exercise a power, provided for by section 82 of the Act, to make recommendations. These recommendations are made to organisations and individuals in order to draw attention to systemic issues that are identified during a coronial investigation, and examined during the course of an inquest. Recommendations in relation to any matter connected with a person's death may be made if a Coroner considers them to be necessary or desirable. Where an inquest is able to identify issues that may potentially adversely impact upon the safety and well-being of the wider community, recommendations are made in the hope that, if implemented after careful consideration, they will reduce the likelihood of other adverse or life-threatening outcomes.

3. Recognition of Anthony's life

3.1 Inquests and the coronial process are as much about life as they are about death. A coronial system exists because we, as a community, recognise the fragility of human life and value enormously the preciousness of it. Recognising the impact that a death of a person has, and continues to have, on the family and loved ones of that person can only serve to strengthen the resolve we share as a community to strive to reduce the risk of preventable deaths in the future.

3.2 Understanding the impact that the death of a person has had on their family only comes from knowing something of that person's life and how the loss of that life has affected those who loved that person the most. Therefore, it is extremely important to recognise and acknowledge Anthony's life in a brief, but hopefully meaningful, way.

3.3 Anthony was born at St Margaret's Hospital, Sydney in 1963 to his parents, Suzanne and John Barrett. By all accounts Anthony had no health issues as a child. He loved playing football although this resulted in a knee injury when Anthony was a teenager which later required surgery.

3.4 According to his parents, Anthony always looked after his health and well-being, and lived a very fit and full life. Anthony worked as a crane operator for many years, and it was a job that he greatly enjoyed.

3.5 In 1998 Anthony met his wife, Yuri. They later married in January 1999 and moved to Holsworthy together. In January 2000 Yuri gave birth to their first daughter, Naomi. Their second daughter, Miki, was born in August 2002.

3.6 Anthony was very much a family man. Yuri fondly recalls her time together with Anthony and their daughters, and the simple pleasure of enjoying each other's company. Anthony enjoyed a close relationship with all his family, in particular his parents. John describes Anthony as lovable and well-liked amongst his colleagues, friends and family members.

3.7 At the conclusion of the evidence in the inquest, Yuri and Anthony's parents shared some brief, but powerful and moving, words with the court regarding the impact of Anthony's tragic loss. Yuri described Anthony as her other half and the person whom she was meant to spend the rest

of her life with. Anthony's parents describe Anthony as a great son, an intelligent and loving person, an inventor who could do anything he put his mind to, and someone who could always be relied upon.

3.8 There is no doubt that Anthony has been missed every single day since his untimely passing by his family and loved ones.

4. Anthony's medical history[1]

4.1 According to family members, Anthony had no relevant medical issues and was considered to be generally healthy. As noted above, he previously worked as a crane operator until developing serious chronic back pain at the age of 45. In 2009, Anthony underwent two surgical procedures in relation to his back, and was subsequently unable to return to work. From this time, Anthony received a social security support pension.

4.2 By 2015, Anthony was experiencing severe pain in his left knee that affected his mobility. Much of this was attributed to the knee injury which Anthony sustained as a teenager whilst playing football which required surgery. Following consultation with his general practitioner (**GP**), Dr Midhat Syed, Anthony was referred to Dr Chandra Dave, orthopaedic surgeon, for further management in relation to degenerative changes associated with his left knee.

4.3 As Anthony was still relatively young and the degenerative changes in his knee were not so severe as to warrant invasive surgery, Dr Dave initially decided to adopt a conservative approach. In order to postpone surgery for as long as possible, Dr Dave referred Anthony to a physiotherapist on 31 August 2015 to explore non-surgical options. This approach continued for several years as Anthony's knee pain was managed with a combination of physiotherapy, lifestyle changes and pharmacological pain relief.

Insertion of mesenteric stents

4.4 In July 2016, Anthony presented to hospital after experiencing worsening episodes of abdominal pain over the course of a week. Anthony was subsequently diagnosed with mesenteric ischaemia, or lack of blood supply to the bowel. In Anthony's case, two of the three main arteries (the superior mesenteric artery and the inferior mesenteric artery) that supply the bowel with blood and oxygen were completely blocked, whilst the third main artery (the coeliac artery) was severely narrowed. This is a life-threatening condition and prompt restoration of blood flow to Anthony's bowel was required.

4.5 This involved the insertion of two expandable covered stents into two of the arteries suppling blood to Anthony's bowel, which would result in the unblocking of the superior mesenteric artery (known as recanalisation) and improving blood flow in the coeliac artery. Surgery took place on 19 July 2016 without complications. Blood flow to the bowel was restored and Anthony's abdominal pain subsided. He was discharged from hospital two days later.

4.6 Following the procedure, Anthony was commenced on dual antiplatelet therapy; that is, commenced on two simultaneous blood thinners, with one being clopidogrel. For the rest of Anthony's life his bowel was always going to be dependent on the two stents staying open, as the third artery which did not contain a stent remained blocked.

[1] This factual background has been drawn from the helpful opening submissions of Counsel Assisting.

Completion of Request for Admission Booklet

4.7 On 7 November 2017 Anthony consulted Dr Dave again, who recommended that Anthony undergo elective surgery for a left total knee replacement (**Left TKR**). Dr Dave completed a Recommendation for Admission booklet (**RFA Booklet**), noting two critical matters on the first page:

(a) Dr Dave ticked a box noting that Anthony was for "*Admission within 365 days*"; and

(b) Dr Dave ticked a second box titled, "*Patient not ready for care (specify when ready)*" (**Patient Readiness Box**). Next to this box, Dr Dave wrote the words, "*Vascular consult*" (**Vascular Consult Request**).

4.8 By annotating the RFA Booklet in this way, Dr Dave intended to convey to a reader that Anthony needed to be referred to a vascular surgeon for review as part of his pre-operative workup. The purpose of such a review was to ensure that Anthony was a suitable candidate for surgery, given his existing mesenteric stents and prescribed antiplatelet medication.

4.9 In 2018, Anthony was able to return to work at his uncle's business in the air-conditioning and refrigeration industry. This return brought Anthony a great deal of personal satisfaction, as he had naturally been frustrated by being out of the workforce for an extended period of time. During this period, Anthony's family reported that he was in good health, with no relevant medical conditions.

Pre-Admission Clinic

4.10 On 6 September 2018, Anthony attended the Pre-Admission Clinic (**PAC**) at Fairfield Hospital. The PAC is staffed by a multidisciplinary team of clinicians and allied health staff. Its primary purpose is to assess the readiness of patients for scheduled surgical procedures. On the day of Anthony's attendance, he was reviewed by the following clinical staff, amongst others:

(a) Registered Nurse (**RN**) Mary Bernardo, who completed a "*Pre-Admission Clinic – Nursing*" form;

(b) Dr Tony Shih, anaesthetist, who completed a full airway examination and discussed Anthony's medical history with him. As a result of this discussion, Dr Shih became aware that Anthony had stents inserted two years previously, and that Anthony was asymptomatic with no abdominal pain. Dr Shih advised Anthony to cease taking clopidogrel (due to the risk of bleeding during surgery) and to instead take cartia, another type of antiplatelet medication. Dr Shih considered that whilst clopidogrel is contraindicated for the spinal anaesthesia that would be required for Anthony's Left TKR surgery, this is not the case with cartia.

(c) Dr Taimoor Ali Babar Sehgol, orthopaedic registrar, who reviewed a number of Anthony's pre-operative tests and confirmed the pre-operative consent given by Anthony. Relevantly, Dr Sehgol became aware that Anthony's existing mesenteric stents had been in place for more than 12 months, and that Anthony was asymptomatic of mesenteric ischaemic disease. On this basis, Dr Sehgol considered that Dr Shih's plan to cease clopidogrel and commence cartia was appropriate, and documented this plan in Anthony's medical records.

4.11 Critically, none of the clinicians who reviewed Anthony at the PAC on 6 September 2018 took any action in relation to the Vascular Consult Request.

Left Total Knee Replacement Surgery

4.12 On 28 September 2018 Anthony arrived at Fairfield Hospital at about 7:00am for his scheduled Left TKR surgery. At 7:20am, Anthony was seen in the day surgery ward by Endorsed Enrolled Nurse (**EEN**) Jasmin Dinglasan, who recorded Anthony's vital signs, noting nothing of concern, and completed a pre-operative checklist.

4.13 At around 7:30am, Dr Stephen Weston, anaesthetist, spoke to Anthony and answered a number of his questions. Following this, Anthony was taken to the operating theatre at 7:45am.

4.14 The surgical team consisted of Dr Yadin Levy, primary surgeon; Dr Sehgol, assisting surgeon; and Dr Weston. At around 8:37am the surgical team conducted a timeout procedure with Anthony to confirm a number of matters including patient identity, the surgical site, and administration of medication and antibiotics.

4.15 Surgery commenced at around 8:42am. Anthony remained stable throughout the procedure, which was unremarkable. Intro-operatively, Anthony was given tranexamic acid, medication used to prevent excessive blood loss, at around 8:35am. Surgery concluded at around 10:34am and Anthony was transferred to the post-anaesthesia care unit, before being moved to the orthopaedic ward.

4.16 At around 12:00pm Anthony spoke to his father and informed him that surgery had concluded. Anthony complained of some minor indigestion but reportedly was positive and did not seem overly concerned.

4.17 RN Susetty John assumed care of Anthony on the ward at around 12.30pm. At 12:30pm, RN John recorded a progress note entry indicating that Anthony's vital sign observations were "*between the flags*", namely, within normal limits. It was also noted that Anthony was on Patient Controlled Analgesia (**PCA**) for pain relief.

4.18 Anthony's vital sign observations were taken and recorded at half hourly intervals between 12:30pm and 2:00pm, and remained between the flags. During this period, Anthony did not report any concerns. At around 1:00pm, Anthony was given additional tranexamic acid.

4.19 At around 2:00pm, RN John handed over Anthony's care to RN Jotika Kumar, who was part of the incoming afternoon shift. At the time of handover, nothing was documented indicating that Anthony had raised any concerns.

4.20 During the course of the afternoon shift on the ward, Anthony's vital signs continued to be taken and recorded, and his wounds were checked.

4.21 Yuri attended Fairfield Hospital at around 2:30pm. Upon arriving in the ward Yuri found Anthony to be experiencing extreme abdominal pain (which he likened to severe indigestion) and barely able to converse. Yuri reported this to a nurse who provided Anthony with water and medication used to treat excessive stomach acid. However, this had little effect in relieving Anthony's pain.

4.22 At around 3:00pm, Suzanne and John, and their two granddaughters, arrived at the ward. After seeing Anthony to still be in severe pain, John attempted to locate a medical officer.

4.23 At around 3:15pm, RN Kumar administered an antiemetic (ondansetron) to Anthony which is commonly used to treat nausea and vomiting.

4.24 At around 4:20pm, a nurse in the orthopaedic ward approached Dr Daniel Yeo, the Resident Medical Officer on the ward that afternoon, to seek urgent medical review for Anthony. Dr Yeo subsequently reviewed Anthony who reported severe abdominal pain, similar to the pain which he experienced when he first had mesenteric ischaemia in 2016. Dr Yeo formed the impression that the possibility of mesenteric ischaemia needed to be excluded and spoke with Dr Dan Dinh, medical registrar, who agreed with his impression. Following further discussions between Dr Yeo and the on-call general surgeon, a plan was formulated to arrange for an urgent CT scan (with intravenous and oral contrast) and surgical review for Anthony.

4.25 At around 6:00pm, Anthony was reviewed by Dr Sehgol as part of his ward rounds. Dr Sehgol noted that Anthony looked clearly unwell and that Anthony's family were visibly concerned for his welfare.

4.26 Anthony underwent a CT scan of the abdomen and pelvis at 7:27pm. The report of the scan concluded that ischaemic gut was likely and that an urgent surgical opinion was required. Following discussions amongst the orthopaedic team a decision was made to transfer Anthony to Liverpool Hospital for further management.

4.27 On arrival at Liverpool Hospital at 9:17pm, Anthony was noted to still be in severe pain. He was taken to the operating theatre for urgent surgery to unblock the mesenteric stents.

4.28 The following morning, on 29 September 2018, Yuri was informed by hospital staff that Anthony was extremely unwell and advised to return to the hospital urgently. On arrival, Yuri found that Anthony had been transferred to the intensive care unit and was unconscious. Anthony's poor prognosis was later discussed between the treating team and Anthony's family members. A decision was made to withdraw advanced life support measures and Anthony was, tragically, pronounced life extinct a short time later.

5. Assumption of coronial jurisdiction

5.1 Following Anthony's death, a medical certificate as to cause of death was issued by Dr Andrew Li, which recorded the cause of death to be bowel ischaemia due to occlusion of a superior mesenteric artery stent.

5.2 On 14 June 2018, Melissa Barrett (Anthony's cousin) sent a request to the Coroners Court of New South Wales for coronial jurisdiction to be assumed over Anthony's death. Ms Barrett's request raised concerns on behalf of Anthony's family regarding the circumstances surrounding his death, and the care and treatment provided to Anthony at Fairfield Hospital. Following consideration of Ms Barrett's request, coronial jurisdiction was assumed on the basis that the manner of Anthony's death had not been sufficiently disclosed.

6. What issues did the inquest examine?

6.1 Prior to the commencement of the inquest a list of issues was circulated amongst the sufficiently interested parties, identifying the scope of the inquest and the issues to be considered. That list identified the following issues:

(1) What was the cause of Anthony's death?

(2) Why did Anthony's knee surgery proceed on 28 September 2018 without review by a vascular surgeon, despite the recommendation from Dr Dave that this occur prior to surgery?

(3) Was it reasonable and appropriate in the circumstances for the surgery on 28 September 2018 to proceed in the absence of the vascular consult (and any other relevant pre-operative inquiries)?

(4) To what extent, if any, did the decision to proceed with the surgery on 28 September 2018 in the absence of a vascular consult contribute to Anthony's death?

(5) If a vascular consult (and any other relevant pre-operative inquiries) had been performed prior to 28 September 2018, would that have identified any matter relevant to Anthony's management prior to, and during, surgery on 28 September 2018, that was not attended to?

(6) Was the post-operative care provided to Anthony at Liverpool and Fairfield Hospitals from 28 to 30 September 2018 appropriate?

(7) Are any recommendations pursuant to section 82 of the Act necessary or desirable in relation to any matter connected with Anthony's death?

6.2 Each of the above issues is discussed in detail below, and it will be convenient to consider some of the issues together. In order to assist with consideration of some of these issues, an opinion was sought from Associate Professor Anthony Grabs, consultant vascular surgeon. Associate Professor Grabs provide several reports which were included in the brief of evidence tendered at inquest, and also gave evidence during the hearing.

7. What was the cause of Anthony's death?

7.1 Following post-operative review by the orthopaedic team on 28 September 2018, Anthony was referred for an urgent CT scan of the abdomen and pelvis which occurred at 7:27pm. The CT scan identified complete or subtotal occlusion of the superior mesenteric artery stent and the coeliac axis stent, both with distal recanalisation. The CT scan also identified complete or subtotal occlusion of the inferior mesenteric artery. Further, it was reported that "*ischaemic gut is highly likely of the mid gut*" and that "*urgent surgical opinion [is] required*".

7.2 Following transfer to Liverpool Hospital, Anthony underwent a diagnostic laparoscopy and an interventional angiography of the abdomen and pelvis (involving thrombolysis catheter placement). During the procedure the mesenteric artery stent was re-opened but found to have extensive distal embolisation. Anthony deteriorated during the procedure and a decision was made not to proceed with coeliac reconciliation.

7.3 The following morning, on 29 September 2018, Anthony underwent a diagnostic laparoscopy, laparotomy, right hemicolectomy and small bowel resection. Following the procedure, Anthony

continued to deteriorate with increasing acidosis and ionotropic requirements. Anthony was later tragically pronounced deceased at 8:05am.

7.4 In his report dated 25 September 2021, Associate Professor Grabs expressed the following view:

> The interventional radiology procedure to clear the stents was complicated by distal embolization and despite appropriate introduction of a thrombolysis catheter to the superior mesenteric artery, due to [Anthony's] overall instability, his condition deteriorated over the next 24 hours. Despite maximal treatment efforts, the consequences of ischaemia to the bowel caused his death.

7.5 Associate Professor Grabs gave evidence that the combination of taking Anthony off clopidogrel and Left TKR being a major operation, would likely have caused changes in Anthony's haemodynamics. That is, his blood pressure may have been lower, and his blood thicker than normal. Further, Associate Professor Grabs noted that the tranexamic acid which was given to Anthony can precipitate thrombosis. Ultimately, Associate Professor Grabs opined that Anthony's death was "*a consequence of acute thrombosis of his two mesenteric stents on the afternoon of 28 September 2018*", and that a combination of factors led to this thrombosis.

7.6 **Conclusion:** The available evidence establishes that the cause of Anthony's death was bowel ischaemia. This occurred as a result of acute thrombosis of Anthony's superior mesenteric artery and coeliac artery stents leading to occlusion of both stents.

8. Would a vascular consult prior to 28 September 2018 have identified any matter relevant to Anthony's pre-operative management or management during surgery? Was it reasonable and appropriate for the surgery to have proceeded on 28 September 2018?

8.1 It is convenient to consider these two issues together.

8.2 Dr Dave's expectation was that Anthony would be given clearance by his treating vascular surgeon prior to proceeding with admission for surgery on 28 September 2018. Indeed, Dr Dave gave evidence that the purpose of his Vascular Consult Request was so that the risks of surgery for Anthony could be appropriately managed.

8.3 Associate Professor Grabs considered that the Vascular Consult Request was appropriate given that:

(a) Anthony previously had mesenteric vascular disease;

(b) Anthony was taking clopidogrel; and

(c) knee replacement surgery is a major procedure associated with blood loss and morbidity.

Likely outcome following a vascular consult

8.4 Associate Professor Grabs also expressed the view that if a vascular consult had occurred prior to 28 September 2018, the following would likely have occurred:

(a) Consideration would have been given to whether a mesenteric duplex or CT scan of the mesenteric stents was required, with the likelihood that imaging would in fact occur;

(b) The orthopaedic team and vascular team would have discussed the risks and benefits of the proposed surgery to allow for an informed decision which would in turn be discussed with Anthony;

(c) Consideration would have been given to continuation of clopidogrel therapy prior to surgery and withholding of tranexamic acid post-operatively in order to mitigate the risk of stent occlusion; and

(d) As Fairfield Hospital did not have a vascular service, consideration would also be given to undertaking the surgery at Liverpool Hospital instead, to manage the possible occurrence of an acute vascular event.

8.5 There are two other matters relevant to Anthony's pre-operative management. The first matter concerns the type of stents placed into Anthony's mesenteric artery. The second concerns the management of Anthony's antiplatelet therapy.

Types of stents

8.6 There are three types of stents commonly used in cardiology and vascular surgery: bare metal stents, drug eluding stents and covered stents. Relevantly, Associate Professor Grabs explained:

> Each stent has different healing rates and complications depending on where they are in the circulation, medications around the time of insertion and progressive disease in the patient's vascular supply.

8.7 Anthony had covered stents placed into his mesenteric artery. Significantly, this variety of stent does not form an epithelial layer and therefore has a higher rate of thrombosis, compared to bare metal stents and the drug eluding stents. The latter varieties are commonly used in coronary circulation.

8.8 Dr Levy, Dr Shih and Dr Weston all gave evidence that whilst they were aware generally of the use of stents in coronary circulation, and were aware in particular of bare metal and drug eluding stents, they were unaware of covered stents. Relevantly, Dr Weston gave evidence that he was unaware that covered stents do not allow for the process of re-epithelialisation. Further, Dr Weston gave evidence that, as at September 2018, he had never previously seen a patient with a covered stent. Dr Shih gave similar evidence that he had never previously seen a patient with a mesenteric stent of any kind.

8.9 Associate Professor Grabs did not consider this lack of familiarity with mesenteric stents, and covered stents in particular, to be surprising. Whilst he explained that covered stents had, as at September 2018, been in use for a significant period of time, they are predominantly used by vascular surgeons and not by cardiologists. Associate Professor Grabs expressed the view that the lack of awareness regarding different types of stents, and covered stents in particular, only served to emphasise the importance of a pre-operative vascular consult for Anthony. That is, a vascular surgeon would know the type of stent placed in Anthony's mesenteric arteries so as to allow for appropriate consideration to be given to the significance of this stents relative to Anthony's proposed surgery.

8.10 Dr Shih gave evidence that he drew a considerable degree of comfort from the fact that Anthony's mesenteric stents had been inserted some two years earlier, that Anthony was no longer on dual antiplatelet therapy and that he was asymptomatic with no abdominal pain. As a result, Dr Shih requested that Anthony cease taking clopidogrel seven days prior to surgery due to the risk of bleeding from surgery and because clopidogrel is contraindicated with spinal anaesthesia. Instead, Dr Shih asked Anthony to start cartia, another antiplatelet agent, in order to offer protection from clotting.

8.11 Similarly, Dr Sehgol explained that because Anthony's stents had been in place for more than 12 months and he was asymptomatic of mesenteric ischaemia, these factors contributed to his agreement for clopidogrel to be ceased, and for cartia to be commenced seven days prior to surgery. With the benefit of hindsight, Dr Sehgol acknowledged that as at September 2018 he was unfamiliar with mesenteric stents, and not aware that the risk of thrombosis occlusion of a mesenteric stent was greater than for cardiac stents.

Antiplatelet therapy

8.12 On 28 September 2018, two doses of tranexamic acid were given to Anthony at around 8:35am and 1:00pm. Dr Weston expressed the view that tranexamic acid is given to avoid the necessity of blood transfusions, and "*has been shown to significantly reduce the risk of blood loss in orthopaedic surgery, and was standard practice for joint replacement surgery at Fairfield Hospital and around the world*". Further, Dr Weston explained:

> [Tranexamic acid] has been shown, in many clinical trials, not to cause an increase in thrombosis and is used extensively in cardiac surgery, where many patients have pre-existing coronary stents. [Anthony's] stent was placed in 2016, meaning it was, statistically, not at risk of re-occlusion and should have been fully re-epithelialised.

8.13 The difference between stents commonly used in coronary circulation, and those used by vascular surgeons, has already been described above. Further, Associate Professor Grabs expressed the following views:

(a) "*the treatment by the anaesthetic team to stop [clopidogrel] and commence [cartia] based on their understanding of [Anthony's] stenting would be considered outside their area of expertise*";

(b) whilst the of changing the antiplatelet agent from clopidogrel to cartia, and the use of tranexamic acid, may be appropriate in a coronary context, it may not be so in a vascular context, involving a covered stent in the mesenteric circulation;

(c) whilst the use of tranexamic acid in joint replacement surgery to reduce bleeding is acceptable, it is by no means routine practice for procedures performed in Sydney (according to Associate Professor Grabs' understanding); and

(d) an individualised approach might have been required for Anthony that may have provided for continuation of clopidogrel therapy and withholding of tranexamic acid. The increased risk of bleeding associated with this approach would need to be weighed against the consequences of possible stent thrombosis, and require a discussion between the surgeon, anaesthetist and Anthony.

8.14 In their evidence, both Dr Weston and Dr Shih accepted Associate Professor Grabs' view that that the decision to cease clopidogrel and commence cartia was outside their expertise. Dr Shih explained that his decision to cease clopidogrel was based upon not having previously seen a patient, such as Anthony, with a covered stent in mesenteric circulation.

8.15 Dr Weston gave evidence that having Anthony continue on clopidogrel and proceeding with his Left TKR surgery would be contraindicated as the blood loss would be "*horrendous*". Associate Professor Grabs agreed that there would appropriately be some hesitation in proceeding with surgery for a patient on clopidogrel. However, Associate Professor Grabs described his personal experience of operating on patients with dual antiplatelet agents, noting that whilst it would be high risk for orthopaedic surgery to proceed for a patient on clopidogrel, he was not aware of a complete contraindication if a patient were appropriately managed. In any event, Dr Weston acknowledged that a vascular consult would have allowed for appropriate discussion, as contemplated by Associate Professor Grabs, about how best to mitigate the surgical risks for Anthony.

8.16 Dr Harry Doan, Director of Medical Services at Fairfield Hospital, explained that he has previously sought further input from anaesthetists and orthopaedic surgeons at Fairfield Hospital on the use of tranexamic acid. Dr Doan further explained the following:

> The consensus view agreed upon is that the use of tranexamic acid in high-risk patients is a risk that needs to be assessed on a case-by-case basis, and a determination made based on the risk assessment undertaken by the treating team.

8.17 **Conclusion:** A vascular consult prior to 28 September 2018 would most likely have resulted in imaging of Anthony's mesenteric stents in order to define their patency. Whilst it is not possible, nor necessary, to reach a concluded view as to the likely result of such imaging, what is of importance is that such investigations would have led to appropriate consideration being given, and an informed decision being made, as to whether the Left TKR should proceed. Further, a vascular consult would also have allowed for appropriate consideration to be given to preoperative management of Anthony's antiplatelet agents. Overall, this would have allowed for a specific and individual surgical pathway being developed for Anthony that would mitigate against the risk of stent occlusion.

8.18 The decision by the anaesthetic team to cease clopidogrel and commence cartia was outside their expertise, and was not made with a vascular context in mind. Again, it is not necessary to reach a concluded view as to whether the use of clopidogrel was entirely contraindicated and whether tranexamic acid ought to have been withheld. However, what is clear is that the absence of a vascular consult deprived the surgical team from receiving appropriate input to inform decision-making regarding Anthony's antiplatelet therapy for surgery. The explanation provided by Dr Doan, as noted above, adds emphasis to this point.

8.19 In the absence of a vascular consult, it was neither reasonable nor appropriate for the Left TKR surgery to have proceeded on 28 September 2018. Significantly, Associate Professor Grabs opined that appropriate pre-operative management, which included a vascular consult, may have prevented the mesenteric stents from occluding.

9. Why did surgery proceed on 28 September 2018 without a vascular consult?

9.1 Put simply, the Left TKR surgery proceeded on 28 September 2018 in the absence of a vascular consult because a number of clinicians involved in Anthony's pre-operative management did not identify the Vascular Consult Request documented by Dr Dave on the RFA Booklet. It was appropriately submitted on behalf of SWSLHD that a vascular consult "*simply should have occurred*".

9.2 Prior to, and on, 28 September 2018 a number of opportunities existed for the Vascular Consult Request to be identified and actioned, as set out below.

7 November 2017

9.3 At the time of reviewing Anthony in November 2017, Dr Dave gave evidence that he had never previously heard of a procedure involving mesenteric artery stenting. As a result, and because Dr Dave considered that there was a degree of risk if Left TKR surgery proceeded and Anthony remained on clopidogrel, Dr Dave considered that referring Anthony for a vascular consult was appropriate.

9.4 Dr Dave explained that at the time of his review Anthony did not know, or could not recall, the name of the vascular surgeon who had performed the mesenteric artery stenting procedure in 2016. If this name had been available to Dr Dave, then it might have allowed for a consultant-to-consultant discussion to determine Anthony's readiness for surgery from a vascular perspective, without the need for a formal review.

9.5 Instead, Dr Dave marked the RFA Booklet with the Vascular Consult Request and explained to Anthony that the consult needed to take place before surgery could proceed. Dr Dave gave evidence that Anthony appeared to understand this but acknowledged that he could have explained this necessary pre-operative step to Anthony in more emphatic terms to ensure that the vascular consult was arranged.

Pre-Admission Clinic

9.6 The PAC is multidisciplinary in nature and functions in a collaborative manner. Patients are reviewed by medical, nursing and allied heath staff in a single room with a number of stations. There is no pre-determined order in which a patient is reviewed by different staff members. The clinicians who reviewed Anthony at the PAC on 6 September 2018 each had an opportunity to identify and action the Vascular Consult Request:

(a) Dr Sehgol understood his role, in essence, was to identify any matter (such as pre-operative test results, infection risk, neurovascular status) which might impede surgery from occurring, and to escalate such matters to a consultant. To do so, Dr Sehgol understood that his role was to review the RFA Booklet, although he gave evidence that from his perspective the "*pertinent pages*" were the front page and the patient consent form.

Despite this, Dr Sehgol did not see the Vascular Consult Request. Dr Sehgol frankly acknowledged in evidence that he could not explain why he did not do so, and indicated that his attention was typically focused on the bottom half of the first page of the RFA Booklet. This half of the page contains, amongst other information, a section for an admitting medical officer such as Dr Dave to note any special instructions in a section with the same title (**Special Instructions Section**). The Special Instructions Section had been completed by Dr Dave noting that Anthony was on clopidogrel.

Dr Sehgol explained that he had a discussion with Dr Shih regarding Anthony's mesenteric stents and whether Anthony ought to remain on antiplatelet therapy. When asked by Counsel Assisting if he considered that this conversation distracted him from seeing the Vascular Consult Request, Dr Sehgol, to his credit, did not attempt to avoid or deflect responsibility. Rather, Dr Sehgol explained that it was his usual practice to diligently review the contents of a RFA Booklet and that he was unable to explain why he did not see the Vascular Consult Request.

Dr Sehgol went on to explain that if he had seen the Vascular Consult Request would have checked Anthony's medical file to confirm if a consult had in fact occurred. In the absence of such a consult, Dr Sehgol gave evidence that he would have discussed the issue with Dr Shih, and escalated the matter to Dr Dave in order to seek confirmation to arrange for such a consult to occur.

(b) RN Bernardo gave evidence that it was her usual practice to read the first page of the RFA Booklet when reviewing patients at the PAC. However, she could not recall whether she did so when reviewing Anthony on 6 September 2018, but acknowledged that she most likely did not see the Vascular Consult Request. RN Bernardo could not explain why this might have occurred, but indicated that if she became aware that a vascular consult had not occurred, she would have informed Dr Shih.

(c) Dr Shih also acknowledged that the RFA Booklet was available to him at the time he reviewed Anthony. He gave evidence that although it was part of his usual practice to look at the first page of the RFA Booklet, he had no recollection of seeing the Vascular Consult Request or seeing the Patient Readiness Box ticked. Dr Shih was unable to offer a reason as to why he did not see either of these annotations, other than to indicate that he does not routinely take note of the top half of the first page of the RFA Booklet. Dr Shih gave evidence that, in his experience, the top half of the first page would not be where he would expect to find a request for a pre-operative consult. Rather, Dr Shih expected that this type of request would be located in the Special Instructions Section. Further, Dr Shih gave evidence that in the six years he had been working at the PAC up to September 2018, he had no recollection of seeing the Patient Readiness Box ticked on any RFA Booklet.

Dr Shih explained that if he had seen the Vascular Consult Request, he would have mentioned it to the surgical registrar and questioned Anthony as to whether the consult had taken place. If not, Dr Shih gave evidence that he would have written a letter of request to Anthony's GP to arrange for a consult to occur, and placed Anthony on a list to return to the PAC once the consult had been completed.

28 September 2018

9.7 Prior to surgery commencing on 28 September 2018, a number of clinicians similarly had an opportunity to identify the Vascular Consult Request and confirm whether it had been actioned:

(a) EEN Dinglasan commenced the admission process for Anthony in the day surgery ward on 28 September 2018. She gave evidence that it was part of her usual practice to have the RFA Booklet with her when reviewing a patient, and to look at the front page in order to identify the surgery to be performed, confirm whether preoperative investigations had been completed and to identify any instructions from the relevant surgeon.

EEN Dinglasan gave evidence that she could not recall seeing the Vascular Consult Request, and explain that she generally would not look to see whether the Patient Readiness Box had been ticked. This is because EEN Dinglasan's expectation was that all the necessary preoperative steps had already been completed at the PAC, and that by the time a patient presented at the day surgery ward, they had already been cleared for surgery.

In addition, EEN Dinglasan gave evidence that when she had previously worked at the PAC, she had seen other RFA Booklets on numerous occasions indicating that a patient was not ready for care. In these circumstances, EEN Dinglasan explained that in her experience any instructions from a surgeon would normally be written on the bottom half of the first page of the RFA Booklet in the Special Instructions Section. EEN Dinglasan said that this was the first occasion that she had seen the first page of the RFA Booklet with a surgeon's instructions on the top half of the page.

(b) Dr Levy gave evidence that in performing the timeout procedure, and going through his preoperative checklist, there was no prompt to enquire as to whether all necessary preoperative investigations had been completed. Dr Levy indicated that by the time of surgery, he would have expected these investigations to have been identified at the PAC and carried out.

(c) Dr Sehgol gave evidence that he saw Anthony in the anaesthetic bay on 28 September 2018 and that he inserted an indwelling catheter. Further, Dr Sehgol explained that he followed his usual practice in confirming patient consent and following the standard preoperative timeout procedure. In confirming consent, Dr Sehgol acknowledged that the RFA Booklet would have been available to him, but indicated that he again did not see the Vascular Consult Request.

(d) Dr Weston gave evidence that although it was his usual practice to look at the first page of the RFA Booklet prior to surgery, his primary aim when speaking to a patient is to discuss the immediate operation and any concerns that a patient may have in order to allay any anxieties. In this regard, Dr Weston explained that by the day of surgery a patient will already have been seen at the PAC with all the necessary "*groundwork*" completed.

Whilst Dr Weston indicated that it was not his usual practice to look at the top half of the first page of the RFA Booklet, he expressed the view that Dr Dave is particularly good at conveying special instructions for other hospital staff. Further, Dr Weston gave evidence that he had never seen a Patient Readiness Box ticked before and that in his experience, Dr Dave typically did not mark that part of the RFA Booklet; instead, he would usually write in in the Special Instructions Section.

(e) Dr Dave was present when the surgical team completed its pre-operative checks and timeout procedure. However, the Vascular Consult Request was not raised at any time by any team member. Dr Dave gave evidence that if it had been raised, the team would have "*scrambled*" to contact Liverpool Hospital and seek advice from the vascular team over the phone.

Other missed opportunities

9.8 Dr Doan gave evidence that, in addition to the above, there were other opportunities for staff at Fairfield Hospital to potentially identify the Vascular Consult Request prior to 28 September 2018, namely:

(a) on 26 March 2018 and 28 June 2018, when Anthony was reviewed at the Fairfield Orthopaedic Hip and Knee Service, also known as the Whitlam Joint Replacement Centre (**Whitlam Centre**) by a Clinical Nurse Consultant (**CNC**) and allied health team;

(b) on 4 September 2018, when the same team completed a patient demographics form; and

(c) on 6 September 2018 at the PAC.

9.9 **Conclusion:** Surgery proceeded on 28 September 2018 without a vascular consult having been arranged for Anthony because none of the clinicians involved in his pre-operative care saw the Vascular Consult Request, despite having the RFA Booklet available to them. Each of these clinicians in their evidence expressed genuine regret in not doing so. It appears that at least three factors contributed to these missed opportunities. First, the Vascular Consult Request was written in a location where the clinicians would not ordinarily expect to find such instructions from an admitting medical officer. Second, at least by 28 September 2018 a general assumption existed that the PAC had identified whether any pre-operative investigations were required and, if so, actioned them. Third, on 28 September 2018, each of the proceduralists were focused on their individual roles regarding the surgery.

9.10 There is no evidence to suggest that these missed opportunities were a product of some recognisable deficiency in clinical care provided, and clinical practice conducted, at Fairfield Hospital generally. Indeed, the evidence is to the contrary in that it can be accepted that each of the clinicians approached their roles and responsibilities diligently. This makes the series of missed opportunities perhaps even more surprising which is, of course, no comfort to Anthony's family. Further, at least by 28 September 2018 it would not have been unreasonable for the clinicians involved in the Anthony's surgery to have some expectation and confidence that all necessary pre-operative workup and investigations had been completed.

10. Was the post-operative care provided to Anthony at Liverpool and Fairfield Hospitals appropriate?

10.1 RN Anu Mathew was working in the post anaesthetic care unit on 28 September 2018. She gave evidence that Anthony reported experiencing pain, which he scored as 8 out of 10, following surgery. RN Mathew gave evidence that in her experience the report of this amount of pain by a patient was common following TKR surgery. This is a reason why patients are provided with PCA.

10.2 Whilst RN Mathew documented this in the clinical progress notes, she agreed in evidence that she did not specify where Anthony's pain was coming from. RN Mathew gave evidence that she assumed that the pain was in Anthony's left knee.

10.3 Between about 10:30am and 12:00pm on 28 September 2018, a number of vital sign observations were taken of Anthony, all of which were all found to be within normal limits.

10.4 The PCA chart records that Anthony reported a pain score of 8 out of 10 at 11:30am. No pain score was recorded at 12:30pm and 1:30pm when Anthony's vital sign observations were taken. Following this, Anthony reported a pain score within the severe pain category at 2:30pm, 3:30pm, 5:00pm, 6:00pm, 7:00pm and 8:00pm.

10.5 Associate Professor Grabs considered that if Anthony's pain and overall condition post-surgery had been assessed by more senior staff at 4:25pm then the seriousness of his condition might have been recognised. This in turn would likely have led to contact being made with the vascular unit at Liverpool Hospital, resulting in an urgent transfer.

10.6 Whilst Anthony's transfer would ideally have been affected earlier, Associate Professor Grabs noted that the performance of the CT scan at Fairfield Hospital was a reasonable step in Anthony's management at the time, although it did result in a potential delay to "*definitive treatment*". However, Associate Professor Grabs expressed the view that the delay in transferring Anthony to Liverpool Hospital "*probably did not alter the subsequent outcome*".

10.7 Overall, Associate Professor Grabs considered that Anthony's post-operative course at Fairfield Hospital followed a standard protocol, and that the care provided to Anthony at both Fairfield Hospital and Liverpool Hospital "*was appropriate and was equal to care that would be provided in any New South Wales metropolitan hospital*".

10.8 **Conclusion:** It was appropriate to seek medical review for Anthony's continued post-operative abdominal pain and increase in blood pressure. From the time of Dr Yeo's review at around 4:25pm on 28 September 2018 an opportunity existed to further escalate Anthony's presentation to a consultant. This likely would have resulted in contact with Liverpool Hospital, leading to Anthony's transfer at an earlier point in time. Instead, transfer did not occur until some four hours later.

10.9 Whilst this period of time was no doubt extremely distressing for both Anthony and his family, the decision to conduct a CT scan to rule in or rule out any potential abdominal pathology was reasonable in the circumstances. Relevantly, even if Anthony's transfer to Liverpool Hospital had occurred earlier, it likely would not have materially altered the subsequent course of events. Therefore, overall, Anthony was provided with appropriate post-operative care at both Fairfield and Liverpool Hospitals.

11. To what extent, if any, did the decision to proceed with surgery on 28 September 2018, in the absence of a vascular consult, contribute to Anthony's death?

11.1 The evidence established that a number of factors contributed to Anthony's death. Each of these factors can ultimately be attributed to the absence of a vascular consult.

11.2 First, the absence of a vascular consult did not allow for the patency of Anthony's mesenteric stents to be defined. Associate Professor Grabs gave evidence that patients may experience a gradual decline in the patency of their stents over time. Further, although Anthony was asymptomatic of mesenteric ischaemia, the rigours of surgery and the lack of antiplatelet agents led to thrombosis of his stents.

11.3 Second, once the CT scan confirmed an ischaemic gut, there were no facilities available at Fairfield Hospital to treat Anthony's urgent vascular condition. Associate Professor Grabs explained that acute mesenteric ischaemia is a time critical condition and that Anthony's transfer to Liverpool Hospital "*increased his delay to definitive treatment*". Whilst a vascular consult would likely have resulted in consideration as to where Anthony's orthopaedic surgery was to be performed, Associate Professor Grabs opined, as noted above, that the time taken to transfer Anthony to Liverpool Hospital probably did not alter the eventual outcome.

11.4 Third, the absence of a vascular consult prevented appropriate consideration being given to Anthony's antiplatelet therapy and whether the use of tranexamic acid was, in fact, contraindicated. Further, it did not allow for any management discussions as to how the risks of surgery could be appropriately mitigated.

11.5 Ultimately, Associate Professor Grabs opined that Anthony's death "*was most likely preventable if good communication between the clinicians and administration systems could have provided [Anthony] a vascular opinion prior to surgery, as requested by Dr Dave*".

11.6 **Conclusion:** Having regard to the matters set out above, and the opinion expressed by Associate Professor Grabs, it is most likely that the absence of a pre-operative vascular consult was the primary reason for the tragic subsequent events and Anthony's eventual death.

12. Is it necessary or desirable to make any recommendations?

12.1 After the RFA Booklet was completed by Dr Dave, Fairfield Hospital received it on 14 November 2017. Once received, it was forward to the Whitlam Centre for a patient to be booked in for surgery. This involved requesting that a patient obtain any necessary consults.

12.2 As at 2017, and presently, a vascular outpatient service does not exist at Fairfield Hospital. Therefore, in order for the Vascular Consult Request to be actioned, Anthony would have needed a referral from his GP for a private vascular consultation. However, it was discovered in retrospect that many patients were not obtaining necessary medical consultations or clearances prior to attending the PAC. This in turn resulted in staff at the Whitlam Centre having to obtain such clearances from specialists in circumstances where a consultation may not have taken place.

12.3 The orthopaedic pre-admission process, including follow-up of pre-operative medical consultations and clearances, was discussed at an Orthopaedic Department Meeting on 19

October 2018. After recognising the above issues, a new pre-admission process was discussed and agreed upon. Dr Doan explained that under this new process:

(a) Patients deemed to be requiring pre-operative consultation/medical clearances will be informed by their referring surgeon that their surgery will not proceed until they have been reviewed by the specialists required. This places greater emphasis on the surgeon's need to inform the patient of what is required for their surgery to go ahead, and why such consultations are required.

(b) Any patient who needs medical specialist review pre-operatively will be "*flagged*" on the front of the RFA Booklet by the surgeon.

(c) All patients are screened by the Whitlam Centre during their initial appointment for medical clearances required, and patients are automatically referred to a cardiologist for medical clearance if they have one or more of the following criteria present:

(i) Age of 80 or older; or

(ii) History of hypertension, diabetes or cardiac issues (atrial fibrillation, coronary artery bypass graft or stents); or

(iii) Body Mass Index greater than 40; or

(iv) The patient is unable to climb two flights of stairs or undertake vacuuming / washing without breathlessness.

(d) At the initial appointment with the Whitlam Centre, patients deemed to be requiring pre-operative consultation/medical clearances will be given a letter indicating what consultations/clearances they require, and they will be informed that their surgery will not proceed until the consultations have occurred. The patient's GP will also receive a copy of this letter.

(e) Patients who are deemed not medically cleared, as they require medical specialist review, are converted to Category D (not ready for care). The patient will remain Category D until all medical clearances requested are obtained.

(f) Patients are reminded at three and six months to provide evidence of their medical clearance if they have not already provided it. Patients will be removed from the waiting list at six months if they have not obtained the required medical clearance(s). The patient can only be placed back on the waiting list once the surgeon has seen evidence of the medical clearance(s) requested.

(g) Once the medical clearance(s) is received, it must be reviewed and signed off by the anaesthetist at the pre-anaesthetic review before the patient can be allocated a date for admission and procedure.

12.4 This new process was implemented from October 2018 and later formalised in writing with the issuing of two memorandums circulated to all medical staff on 30 September 2021 and 7 October 2021. Relevantly, the *Medical Clearance prior to Elective Joint Surgery* memorandum of 30 September 2021 notes:

> Patients are reminded at 3 monthly follow up to provide evidence of medical clearance. If medical clearance has not occurred by the date of the patient's education day (usually just prior to [PAC] appointment), patients are not given a PAC date and their category is changed to Cat D (not ready for care).

12.5 Dr Doan gave evidence that in the six months up to February 2022 a random audit of ten surgical cases through the Whitlam Centre has shown that of these ten cases, seven patients required medical clearances prior to surgery, after these clearances had been requested on their RFA Booklet, following screening at the Whitlam Centre or following review at the PAC. The audit demonstrated that all seven patients had obtained their required medical clearances prior to their surgery date.

12.6 In addition to the systems improvements described above, individual clinicians involved in Anthony's care have also made changes to their individual practice. Dr Dave gave evidence that he:

(a) is now more "*forceful*" when providing instructions for a pre-operative consultation to occur;

(b) engages more directly with a GP, rather than relying solely on the RFA Booklet, to ensure that a patient is referred to obtain pre-operative medical clearance; and

(c) now interrogates an RFA Booklet more closely prior to surgery.

12.7 Similarly, Dr Sehgol explained that since September 2018 he has "endeavoured to learn from [his] mistake" and now reads RFA Booklets "*very carefully*". Further, Dr Sehgol has since taken on a role as a trainee registrar with responsibilities to teach more junior medical officers. In doing so, Dr Sehgol instructs these more junior medical officers to read forms more carefully and to seek input from, and refer patients to, other sub-specialities where appropriate.

12.8 **Conclusion:** The South Western Sydney Local Health District has, as an organisation, appropriately reflected on the contributing factors to Anthony's death. Similarly appropriate reflections have been undertaken by the individual clinicians involved in Anthony's care. This has led to significant improvements, instituted at an organisational and individual level, to ensure that no patient proceeds to surgery without first having obtained all necessary medical consultation and clearances.

12.9 Having regard to the above, it is neither necessary nor desirable for any recommendation to be made pursuant to section 82 of the Act.

13. Findings pursuant to section 81 of the *Coroners Act 2009*

13.1 Before turning to the findings that I am required to make, I would like to acknowledge, and express my gratitude to Dr Peggy Dwyer, Counsel Assisting, and her instructing solicitor, Ms Taylor Bird of the Crown Solicitor's Office. I am extremely grateful for the excellent assistance provided by the Assisting Team throughout the coronial process, and for all their efforts. Equally

importantly, the sensitivity and compassion that the Assisting Team has shown throughout the course of this tragic matter should be acknowledged.

13.2 I also thank Senior Constable Jessica Doyle for conducting the police investigation and compiling the initial brief of evidence.

13.3 Finally, the assistance provided by, and conduct of, the various legal representatives who participated in the inquest should also be gratefully recognised and acknowledged as entirely in keeping with the fundamental principles of the coronial jurisdiction.

13.4 The findings I make under section 81(1) of the Act are:

Identity

The person who died was Anthony Barrett.

Date of death

Anthony died on 30 September 2018.

Place of death

Anthony died at Liverpool Hospital, Liverpool NSW 2170.

Cause of death

The cause of Anthony's death was bowel ischaemia which occurred as a result of acute thrombosis of Anthony's superior mesenteric artery and coeliac artery stents leading to occlusion of both stents.

Manner of death

Anthony's death was the unexpected outcome of a medical procedure. Although a pre-operative consultation to obtain medical clearance for Anthony prior to left total knee replacement surgery had been requested, this request was not identified and actioned prior to the surgery. Had such a pre-operative consultation occurred it would have mitigated against the risk of occlusion of Anthony's superior mesenteric artery and coeliac artery stents.

14. Epilogue

14.1 On behalf of the Coroner's Court of New South Wales and the Assisting Team, I offer my deepest sympathies, and most sincere and respectful condolences to Yuri, Naomi, Miki, Suzanne, John and Melissa; the other members of Anthony's family; and Anthony's friends and loved ones, for their most painful and devastating loss.

14.2 Anthony's physical separation from his family and loved ones is both untimely and tragic. There is no doubt, however, that he remains in the hearts and minds of those who feel his loss most deeply every single day.

14.3 I close this inquest.

Magistrate Derek Lee
Deputy State Coroner
25 March 2022
Coroner's Court of New South Wales