CORONERS ACT, 2003

SOUTH *AUSTRALIA*

FINDING OF INQUEST

An Inquest taken on behalf of our Sovereign Lady the Queen at Adelaide in the State of South Australia, on the 4th, 5th, 6th and 11th day of March 2009 and the 30th day of July 2009, by the Coroner's Court of the said State, constituted of Anthony Ernest Schapel, Deputy State Coroner, into the death of Sidney Brunt.

The said Court finds that Sidney Brunt aged 65 years, late of 45 Greenly Avenue, Coffin Bay, South Australia died at the Royal Adelaide Hospital, North Terrace, Adelaide, South Australia on the 13th day of November 2005 as a result of an acute right subdural haematoma. The said Court finds that the circumstances of his death were as follows:

1. Introduction and cause of death

1.1. Sidney Brunt died at the Royal Adelaide Hospital on 13 November 2005. He was 65 years of age.

1.2. A post-mortem examination in respect of Mr Brunt's body was conducted by Dr Ross James who is a forensic pathologist. Dr James' report[1] expresses the cause of Mr Brunt's death as an acute right subdural haematoma. A subdural haematoma is a collection of blood in the cranial cavity that is the result of bleeding from small blood vessels over the surface of the brain. It may be caused by a number of mechanisms that for the most part involve trauma. The amount of physical trauma required may be quite small. Relatively small forces to the head such as vigorous shaking might trigger a subdural haematoma. The afflicted individual might have very little awareness or memory of the trauma. The very elderly might suffer a spontaneous

[1] Exhibit C6a

subdural haematoma. Persons whose blood clotting (coagulation) capabilities have been seriously diminished by over-anticoagulation, say as the result of medical intervention, may also be considerably more prone to suffer a subdural haematoma.

1.3. A subdural haematoma is a life threatening condition. The blood loss in itself is not the difficulty. The fatal consequences are the result of raised intracranial pressure caused by the occupation of the cranial space by the accumulated blood. Dr James told me that it was rare for the condition to cause death in less than two hours or so. This is due to the fact that the rate of bleeding is usually quite slow. However, it is nevertheless very important for the collection of blood to be eradicated within hours. Some subdural haematomas may in the first instance be relieved by a parietal burr hole drilled in the side of the head. The presence of a subdural haematoma may be diagnosed by a CT scan of the head. Urgent diagnosis of a subdural haematoma and surgery is very much indicated.

1.4. As to the symptomatology of a subdural haematoma, some patients who have been subjected to acute severe trauma might lose consciousness immediately. That was not the case with Mr Brunt. Other cases typified by Mr Brunt's presentation will usually involve lethargy, drowsiness, headache, nausea and vomiting, the last three symptoms being the product of raised intracranial pressure.

1.5. By the time Mr Brunt suffered his fatal subdural haematoma in November 2005, his blood clotting capabilities had been adversely affected by a regime of anticoagulation therapy that had been allowed by his general practitioner to spin out of control. There is no doubt in my mind that the fatal subdural haematoma was a consequence of poorly supervised anticoagulation therapy which resulted in a grossly excessive level of anticoagulation in Mr Brunt. There is no other sensible explanation for it, such as a significant blow to the head, of which there is simply no evidence in Mr Brunt's case. There were no contusions or fractures to Mr Brunt's head, for instance. Dr James summed up the position thus:

> 'I think that we don't have any evidence to explain why this man of 65 years apparently started to bleed inside of his head. The only evidence we have is negative evidence, there's nothing to suggest he's received any significant physical trauma and if he has been treated, I assume for quite valid reasons with Warfarin, a blood thinning agent, then that is very likely to predispose him to bleeding somewhere in his body, perhaps in the skin or the kidneys or in this instance, inside of his skull.' [2]

[2] Transcript, pages 15-16

1.6. I find that the cause of Mr Brunt's death is that as expressed by Dr James in his report, namely acute right subdural haematoma.

2. Background

2.1. Mr Brunt lived in Coffin Bay which is about a 30-minute drive from Port Lincoln on the Lower Eyre Peninsula. He had a medical history that included ankylosing spondylitis which is a condition of the spine that can generate pain from time to time. He had also had stents placed in each of his iliac arteries to encourage better circulation in his legs.

2.2. On 17 September 2005 Mr Brunt suffered an episode of confusion on the Coffin Bay golf course. That afternoon he was admitted to the Port Lincoln Hospital. He remained in hospital until the morning of 19 September 2005 when he was discharged. During his period of hospitalisation it was thought by those treating Mr Brunt that a transient ischaemic attack (TIA) had caused his episode on the golf course. A TIA is caused by temporary deprivation of blood supply, and therefore oxygen, to a part of the brain. This is usually the result of a vascular compromise such as a clot. Mr Brunt was to recover from this episode quite well.

2.3. However, during his period of hospitalisation Mr Brunt was also diagnosed as suffering from atrial fibrillation (AF). AF is a condition of the heart that involves an arrhythmia. It was diagnosed in Mr Brunt's case by an electrocardiogram (ECG). AF might also be detected clinically in the patient's pulse. AF is not necessarily in itself a fatal condition. However, the arrhythmic disturbance can result in the formation of blood clots in the heart. The clots may be transported from the heart through the bloodstream and lodge in the blood vessels supplying the brain. This will commonly result in a stroke. Mr Brunt's TIA, commonly referred to as a mini-stroke, may well be explicable on this basis.

2.4. In order to prevent or minimise the rapidity of clotting, the anticoagulant drug warfarin is frequently prescribed to patients suffering from AF. When Mr Brunt was in hospital in September 2005 he was placed on a warfarin regime. The placement of a patient on a warfarin regime, sometimes known as warfarinisation, is a very serious matter. Warfarinisation might be indicated in a patient whose blood clotting capabilities for whatever reason need to be altered. In Mr Brunt's case the reason for his warfarinisation was his AF. Warfarinisation results in a condition that is known as

anticoagulation. Coagulation is the process by which the blood clots. As we all know, clotting is a natural feature of the body's processes. It reduces bleeding. When anticoagulation is established, the blood's clotting capabilities will be reduced. Depending on the level of anticoagulation, bleeding may become less controllable. The brain is one of the sites in which such bleeding might occur. Indeed, bleeding in persons who are undergoing warfarin therapy might be experienced in other bodily sites. For instance, Dr James told me that one would be quite alarmed to see blood in the urine if one was on anticoagulant therapy[3].

2.5. Warfarin administration is conducted by the patient him or herself. It is generally administered by way of a tablet that is prescribed for the patient by a doctor and supplied in the usual manner by a pharmacist. In Mr Brunt's case, it was prescribed in the form of tablets of 5mg to be taken once daily. If this regime of administration were maintained in literal accordance with such a prescription, as it was in Mr Brunt's case over a number of weeks, then a very dangerous situation regarding the patient's health could arise. For this reason, strict and careful supervision of a patient's anticoagulation levels by the prescribing practitioner is required and should be rigorously instigated and maintained. This fundamental and immensely important requirement is well understood within the medical profession in Australia and is taught in medical courses in this country. However, in Mr Brunt's case the measure was neglected by his prescribing general medical practitioner, Dr Olukayode (Kay) Ajao, an overseas trained practitioner who had only that year migrated from Africa.

2.6. To enable a warfarinised patient's anticoagulation level to be measured, a blood test that establishes what is referred to as the patient's INR level is conducted. I understand that a person's INR level is normally between 0.8 to 1.2. However, a therapeutic anticoagulation level for the condition of AF is between 2.0 and 3.0. I am uncertain as to the precise point at which one's INR level would be considered dangerous, but a level of 10 or greater certainly is. When Mr Brunt's INR level was determined on the evening of his fatal brain haemorrhage the INR level was greater than 10. This was the first occasion on which it had been measured since the time he had first been placed on the warfarin regime at the Port Lincoln Hospital. On 18 September the INR level had been 1.1. The following day, the day of Mr Brunt's discharge, it had increased to 1.4 which was reflective of the fact that the drug was

[3] Transcript, page 20

taking effect. Thereafter it remained unmonitored. Mr Brunt was not administered warfarin during a further period of hospitalisation in October, but was placed back on the drug after his discharge by Dr Ajao whereupon his anticoagulation status yet again remained unmonitored and uncontrolled for a number of weeks.

2.7. In order to maintain an appropriate therapeutic level of anticoagulation, in the initial stages of anticoagulation therapy the prescribing medical practitioner would need to check the INR level on a daily or alternate daily basis for approximately 1 week and to adjust the necessary dose of warfarin accordingly. Generally speaking, and depending on the progress of the INR results, further checks of INR levels would be required approximately three times in the following week and then twice weekly for a further 1 or 2 weeks until the INR stabilises. Thereafter, INR checks might be only indicated every 4 weeks. It would be inappropriate to prescribe warfarin in the first instance on an 'until the tablets run out' basis. The time at which the tablets would run out depends upon the dose, which in turn depends upon the INR results and the necessary dosage adjustments.

2.8. There is no time prescribed for the duration of warfarin treatment. In a patient with AF it is usual for the patient to continue on a warfarin regime indefinitely. Common aspirin is also effective as an anticoagulant but less so than warfarin. In some instances, such as in a patient with an enhanced risk of bleeding, it is reasonable to use aspirin instead of warfarin.

2.9. None of the monitoring considerations that I have just described were implemented in Mr Brunt's case. The properties of warfarin and the monitoring requirements relating to that drug were described to me by a consultant haematologist who provided an expert overview of the matter. That person was Dr John Lloyd who is a specialist in haematology employed at the Institute of Medical and Veterinary Science at the Royal Adelaide Hospital. He is also an Associate Professor in the Health Sciences Division of the University of Adelaide. He is a Fellow of the Royal Australasian College of Physicians and has a Doctorate of Medicine from the University of Adelaide and a PHD from the McMaster University in Ontario, Canada. As to the intrinsic dangers associated with warfarin therapy, Dr Lloyd told me that warfarin is considered to be a drug with a low therapeutic margin, that is to say that there is only a small margin between the dose that is required to prevent clotting and the dose that will give rise to

a risk of bleeding. For that reason it is regarded as a dangerous drug[4]. Dr Lloyd told me that it is extremely important that the doctor administering warfarin understands how to use it, understands the pharmacology behind its use and, most importantly, understands the risks versus the benefits of the drug. These matters must be explained in detail by the doctor to the patient and the risks have to be weighed, not just in terms of the medical risks of clotting and bleeding, but in terms of whether the patient is the type of person who will comply with the monitoring and testing regime. These are all essential elements of a regime of warfarin therapy, yet none of them were deployed in Mr Brunt's case by the administering practitioner. On Dr Lloyd's evidence, which I accept, there was a clear professional duty upon Dr Ajao to instigate a regime of monitoring and control in respect of Mr Brunt's warfarin therapy.

2.10. Dr Lloyd explained to me that the anticoagulation that is caused by warfarinisation can, if considered clinically necessary, be reversed by the administration of vitamin K and/or the administration of frozen plasma. The reversal might take a number of hours depending upon the level of anticoagulation. Frozen plasma is not always available at every hospital.

2.11. Dr Lloyd believes that from his experience anticoagulation monitoring is generally managed quite well by general practitioners. He suspected that the range of competence amongst general practitioners would vary quite widely but would for the most part be '*quite good*'[5]. Dr Lloyd said:

> 'The first thing is that during the medical course it's taught well. By the time a medical student has graduated and then become a doctor for a year in a hospital I would expect them to be reasonably well experienced in the management of warfarin therapy. So that's the first thing. The second part is that, although I don't know of any specific protocol available to general practitioners, the teaching hospitals have protocols and there are articles in journals from time to time which detail protocols and I would expect, for instance in general practice or physician practice or surgical practice, that during their post-graduate training that they would be further educated on how to give warfarin. So I would expect most, if not all, doctors to be reasonably well versed in the management of patients on warfarin.' [6]

[4] Transcript, page 305-306
[5] Transcript, page 309
[6] Transcript, page 304

3. Dr Olukayode (Kay) Ajao

3.1. As at the date of this Inquest, Dr Ajao was a general practitioner in the Lincoln Medical Centre at Port Lincoln. He has been a medical practitioner for approximately 20 years. He gave evidence in the Inquest.

3.2. Dr Ajao received his original medical education in Nigeria. He worked as an intern in a hospital in Nigeria in 1988 and 1989. He practised as a resident medical officer in a hospital in Nigeria until 1994. Dr Ajao then moved to South Africa where he practised as a medical officer at different hospitals to February 2000. Between March 2000 and April 2005 he practised as a family physician in a hospital and then as a general practitioner in a private surgery.

3.3. In May 2005 Dr Ajao migrated to Australia.

3.4. Dr Timi Adayemi, who practised at Port Lincoln as a general practitioner, acquired a medical practice in Napoleon Street, Port Lincoln. He acquired the Napoleon Street practice approximately 2 months prior to Dr Ajao's arrival in Australia. Dr Adayemi was a person who had been known to Dr Ajao for several years when they had both worked in Africa. When Dr Ajao arrived in Port Lincoln he commenced as a general practitioner with provisional registration, ostensibly working under the supervision of Dr Adayemi. The required period of supervision was approximately 2 years. Dr Ajao sat the examinations for admission as a Fellow of the Royal Australian College of General Practitioners in 2007, although by then, as I understand it, Dr Ajao had moved to the Lincoln Medical Centre practice. Dr Ajao received his Fellowship and he now has full registration as a general practitioner.

3.5. Approximately 4 weeks after Dr Ajao's commencement in supervised practice in Port Lincoln, Dr Adayemi moved to Whyalla where he had another general medical practice. Although Dr Adayemi continued to own the practice in Napoleon Street, Port Lincoln, his move to Whyalla effectively meant that Dr Ajao was the only medical practitioner in that practice on a daily basis.

3.6. During the week Dr Ajao effectively ran the Napoleon Street practice. However, Dr Ajao told me that Dr Adayemi was always available for consultation if necessary. Dr Ajao worked on Saturdays. After Dr Adayemi's move to Whyalla, Dr Ajao saw Dr Adayemi at Port Lincoln at weekends. Dr Adayemi would stay at the house in which

Dr Ajao was residing. On weekends he and Dr Adayemi would discuss patients' cases together. Dr Ajao maintained that he found this regime of supervision to be adequate. At this time Dr Ajao also undertook training for his Fellowship. He travelled to Adelaide from time to time for that purpose. His training culminated in his successful examination and conferral with Fellowship in 2007.

3.7. Dr Ajao also practised within the Port Lincoln Hospital and was rostered to answer emergency calls at that hospital. Other local practitioners practised at the hospital including Dr Kenneth Baillie, a general practitioner, Dr Rufus McLeay who is a consultant physician and Dr Ian Fletcher who is a surgeon.

3.8. Dr Ajao asserted that in his various medical practices in Africa he had on occasions prescribed warfarin to patients and had monitored their warfarin regimes. He also produced some evidence to suggest that in Port Lincoln, and prior to or at the same time he was treating Mr Brunt, he had at least one other patient whose warfarinisation he was satisfactorily monitoring. Dr Ajao did not lay claim to having discussed Mr Brunt's case specifically with his supervisor, Dr Adayemi, at any time.

3.9. Having regard to Dr Ajao's lengthy experience as a medical practitioner in two African countries and the fact that within a very short space of time after his arrival in Port Lincoln his supervisor Dr Adayemi left Port Lincoln and commenced practice and residence in Whyalla, on Dr Ajao's evidence the supervision that existed as between him and Dr Adayemi seems to have been a loose arrangement. Dr Ajao's own description of the arrangement leads me to conclude that he essentially ran the Napoleon Street practice as a sole practitioner acting autonomously.

3.10. Dr Ajao told me in evidence that he was quite unfamiliar with the computerised medical note-taking system at the Napoleon Street practice and also asserted that he had very limited typing skills at the time he commenced work at that practice. Accordingly, he asserted in evidence that the standard of his note-taking in respect of the presentations of his patients left something to be desired. Be that as it may, I was not convinced that Dr Ajao's unfamiliarity with the system, nor the adequacy of his typing skills and note-taking generally, had any bearing whatsoever on his ability to identify and maintain a proper regime of treatment and monitoring in respect of his patients. Insofar as this was offered in part as some kind of excuse in respect of his treatment of Mr Brunt, it was a lame one.

3.11. Dr Ajao's first consultation with Mr Brunt had occurred on 26 July 2005 at the Napoleon Street surgery. At that time Mr Brunt had presented with a dry cough. Pneumonia on that occasion was suspected and Mr Brunt was placed on antibiotics and a satisfactory outcome was achieved.

4. Mr Brunt's hospitalisation in September 2005

4.1. Following Mr Brunt's episode on the Coffin Bay golf course he was hospitalised in the Port Lincoln Hospital for 3 days from 17 September to 19 September 2005. The details of his various diagnoses do not need to be discussed at length. Dr Baillie, another local general practitioner who had practising rights at the hospital, ordered an INR test to establish Mr Brunt's baseline INR with a view to commencing treatment on anticoagulant therapy for AF. The INR was 1.1 which is normal; in other words at a level that would be expected in a person who was not taking anticoagulant medication. Dr Baillie started Mr Brunt on heparin which is another drug that influences clotting and then commenced him on a starting dose of warfarin. Dr Baillie gave evidence in the Inquest and told me of the usual monitoring regime involving INR testing until the level is stabilised. The medication therapy chart relating to Mr Brunt's admission at the Port Lincoln Hospital on this occasion, which forms part of the complete file relating to Mr Brunt[7], reveals that warfarin was administered to Mr Brunt on 17 and 18 September 2005. The dosage was 5mg. He was discharged during the morning of 19 September 2005 by which time his INR had increased to 1.4 which would be in accordance with his having been commenced on warfarin. As seen earlier, this was the last INR test that was ever conducted with respect to Mr Brunt.

4.2. Dr Baillie had no further contact with Mr Brunt after 17 September 2005. Although he had originally prescribed the warfarin, there was no expectation that Dr Baillie would have anything further to do with Mr Brunt's treatment. He was not Mr Brunt's regular general practitioner. Dr Baillie understood that Dr Ajao was Mr Brunt's general practitioner. Accordingly, Dr Baillie had no responsibility in relation to the management of Mr Brunt's warfarin regime. Dr Baillie told me that the fine detail of the frequency of Mr Brunt's blood tests and the arrangement as to how and where he would undergo those tests would all be left to Mr Brunt's treating doctor. The contemporaneous progress notes relating to this period of hospitalisation clearly

[7] Exhibit C4

reflect Dr Baillie's expectation that Mr Brunt would be followed up by Dr Ajao in the latter's capacity as Mr Brunt's general practitioner.

4.3. Dr Ajao himself acknowledges that he took over Mr Brunt's care from Dr Baillie as of 18 September 2005. Dr Ajao recorded that he ordered the INR test of 19 September 2005 which gave the result of 1.4. It is clear that Mr Brunt was administered with warfarin on 17 and 18 September 2005. As far as 19 September 2005 is concerned, it appears that it was on this day that Dr Ajao, for the first time, saw Mr Brunt in connection with this admission. This was the day of Mr Brunt's discharge. Dr Ajao made an arrangement for Mr Brunt to be followed up at Dr Ajao's surgery after the results of a CT scan of the brain and an ultrasound of the carotid arteries were made available. Dr Ajao's note of 19 September 2005[8] reveals that his plan was to perform ECG and INR testing that day, as well as the CT scan, and to discharge Mr Brunt home 'on Warfarin'. As far as the INR result was concerned, Dr Ajao recognised that the figure of 1.4 was an increase from the first INR result and that it was in keeping with Mr Brunt's consumption of warfarin to that point in time. The figure of 1.4 was rightly regarded by Dr Ajao as not yet up to the therapeutic range. The range Dr Ajao was seeking was between 2.0 and 3.0. His plan was to maintain Mr Brunt on the same dosage of 5mg per day and to repeat the INR test '*maybe two days later*'[9]. The plan, insofar as it contemplated further INR tests, was never implemented by Dr Ajao notwithstanding his continued status as Mr Brunt's administering practitioner.

4.4. At times during the hearing of this Inquest I confess to having wondered long and hard as to whether Dr Ajao in September, October and November of 2005 had any appreciation at all of the need to monitor a warfarin regime in a patient such was his subsequent neglect of Mr Brunt in that regard. However, I am satisfied that his notation of 19 September 2005 to the effect that he personally ordered the INR test of that day demonstrates that he did have such an appreciation. This was later reinforced by material from the Napoleon Street practice that tended to confirm that at the time with which the Inquest was concerned there were other patients of the practice whose warfarin regimes were being monitored by Dr Ajao. But if anything, this makes Dr Ajao's neglect of Mr Brunt all the more perplexing and unmitigated.

[8] Exhibit C4, page 121
[9] Transcript, page 104

4.5. Mr Brunt's wife, Carole Brunt, provided a detailed statement to the Inquest[10]. She retained the container which related to the prescription for warfarin that was given to her husband and filled in September 2005. It is clear from the notations on the container that Dr Ajao prescribed the tablets on 19 September 2005, the day of Mr Brunt's discharge from hospital. The prescription was for 5mg to be taken once daily. The quantity that was supplied was plainly 20 tablets, although Dr Ajao told me in his evidence that he believed that Mr Brunt had been supplied with 50 tablets.

4.6. As planned, Dr Ajao saw Mr Brunt in the Napoleon Street surgery two days after his discharge on 21 September 2005. Dr Ajao's computerised notations refer to the fact that the CT scan and the carotid artery test revealed that no abnormalities were detected. The fact that Mr Brunt was 'on warfarin' is noted. The plan as far as warfarin was concerned is noted as being:

> 'Plan
> complete warfarin tablets
> then
> recommence aspirin' [11]

Prior to his hospitalisation, Mr Brunt had evidently been on aspirin in respect of the stents in his iliac arteries. The aspirin had not been prescribed in respect of any need for anticoagulation for AF.

4.7. Having regard to the fact that by 21 September Mr Brunt had taken warfarin on a daily basis since and including 17 September 2005, an INR test ought to have been undertaken at this consultation in Dr Ajao's surgery. In addition, at the very latest this would have been the occasion upon which Mr Brunt ought to have been advised of the need for close monitoring of his INR levels. Notwithstanding this, no INR test was conducted on this day nor on any subsequent occasion while Mr Brunt was under Dr Ajao's care. Dr Ajao had no option but to acknowledge that he should have performed an INR test on this occasion. Given Dr Ajao's asserted practice and medical training to the effect that he would always talk to the patient about the effects of warfarin, and always advise them to make an appointment to come in for blood testing[12], the fact that he did neither on this particular occasion remains a mystery of significant proportions. Compounding the mystery is the plan, as described in Dr

[10] Exhibit C10a
[11] Exhibit C3
[12] Transcript, pages 87-88

Ajao's notes, that Mr Brunt should 'complete' the warfarin tablets and then be recommenced on aspirin. Such a plan is incompatible with the required monitoring that has to be instituted in the first instance in any warfarinisation regime. For instance, a plan that required Mr Brunt to take daily what at that time remained of the warfarin tablets prescribed on 19 September 2005, some 17 or 18 tablets, takes no account of the fact that Mr Brunt's INR might reach a level that exceeded the therapeutic range or might even reach dangerous levels by the time of their completion. INR monitoring would, at least in the first instance, have almost inevitably dictated an entirely different course of administration to that prescribed by Dr Ajao. It may well have been the case that if Mr Brunt's INR level exceeded the therapeutic range he would have required being taken off warfarin pending the result of a further INR test and the stabilisation of the INR level within the appropriate range.

4.8. In truth, an instruction to complete the course of tablets until finished was an anathema as far as the required regime of monitoring was concerned. Indeed, some might say that such a plan was outwardly more in keeping with total ignorance on Dr Ajao's part as to the need for monitoring. This, notwithstanding Dr Ajao's asserted familiarity with the need to monitor INR levels in the first instance.

4.9. Complicating my unease about the true extent of Dr Ajao's expertise and knowledge on the matter generally was that aspect of the plan that would have seen Mr Brunt being recommenced on aspirin at the completion of the course of warfarin tablets. This was also quite contrary to standard medical practice. Given that a person who is placed on a warfarin regime for AF could reasonably expect to take warfarin for the rest of their lives, a need to actually cease the regime and to substitute it with a regime of aspirin could not possibly have been predicted at that stage of Mr Brunt's treatment. As well, such a plan could not in any way shape or form take into account Mr Brunt's reaction to the warfarinisation regime as monitored by his INR levels from time to time. As to the rationale behind the plan, Dr Ajao's counsel, Ms Sheppard, asked him what he had to say about that. Dr Ajao's response was:

> 'Yeah, I should have kept him on the warfarin tablet and monitor his INR.' [13]

[13] Transcript, page 107

Asked as to whether he could give any explanation for making the decision that he did about completing the warfarin course at that time, he said '*no*' and shook his head[14]. Dr Ajao referred to the inadequacy of his notes and suggested in effect that he was disadvantaged by not being able to pick up from those notes the reasoning that had underpinned his plan. He asserted that there may have been more discussion about the plan not recorded in the notes. However, even in hindsight he could not articulate his thought processes in regard to his plan. To my mind this is a reflection of the fact that there can be no sensible and proper underlying basis in respect of that plan or one that has any identifiable scientific foundation.

4.10. In the event it seems clear, and I so find, that Mr Brunt continued to take the warfarin and took it in ignorance of the need for his consumption of warfarin to be monitored. Save and except for the possibility that Mr Brunt may have inadvertently neglected to take his tablet on one or more days, there is no reason to suppose that he did not take the warfarin in accordance with the prescription of one tablet daily. To Mrs Brunt's knowledge her husband kept taking the warfarin until his next admission to hospital in early October 2005. As it transpired, Mr Brunt was again admitted to the Port Lincoln Hospital on 7 October 2005. He thereafter remained in hospital until 18 October 2005 following which Dr Ajao again prescribed him warfarin. It appears that while in hospital on this second occasion Mr Brunt did not take any warfarin tablets. It may well be that the last tablet he took prior to the October admission to hospital was taken on the day of his admission, namely 7 October 2005. Mrs Brunt, who retained the container in respect of the original prescription of 19 September 2005, asserts that out of the original 20 tablets there are 4 tablets left. If Mr Brunt took the first tablet from this prescription on 19 September 2005, and took one daily up to and including 7 October 2005, he should have taken 19 tablets. In the event, we know that there were 4 remaining which of course is in keeping with Mr Brunt having consumed 16 tablets. In the nature of things it may well be that on various days Mr Brunt forgot to take his tablet. In any event, I am satisfied that between 19 September and 7 October 2005 Mr Brunt consumed at least 16 warfarin tablets without there being in existence any monitoring regime in respect of his anticoagulation status.

[14] Transcript, page 107

5. Mr Brunt's hospitalisation in October 2005

5.1. Following the consultation of 21 September, Dr Ajao next saw Mr Brunt on 5 October 2005. According to Mrs Brunt, on that day her husband began experiencing pains in his buttocks that were quite unexplained. Dr Ajao has recorded in the computerised notes[15] of that day's consultation that Mr Brunt described the pain as having been sudden in nature. Mr Brunt was noted as being unable to sit down properly and he had an elevated blood pressure of $^{160}/_{100}$. Dr Ajao has noted that he assessed Mr Brunt as suffering from myalgia that he thought may have been the product of Mr Brunt's already previously diagnosed ankylosing spondylitis. He prescribed a strong pain reliever and advised him to see him again if the pain persisted. There is no recorded discussion about Mr Brunt's warfarin regime and Dr Ajao acknowledged that there was no consideration given on this occasion to any INR monitoring[16]. He says that he did not know whether or not Mr Brunt was still taking the warfarin when Mr Brunt came to see him on 5 October 2005. However, if Mr Brunt was taking the tablets on a daily basis at that time, to Dr Ajao's knowledge there would still have been some tablets remaining, even if he knew that only 20 tablets had been supplied and not 50 tablets as he thought.

5.2. The only other relevant matter relating to the presentation on 5 October 2005 is that on this occasion Dr Ajao took Mr Brunt's pulse and it was revealed to be 90 beats per minute. As seen earlier, AF may well be revealed in a patient's pulse. Dr Ajao said that if there had been any detectable irregularity he would have noted it. In short, to Dr Ajao there was nothing about Mr Brunt's presentation on 5 October 2005 that would have reminded him of the need to monitor Mr Brunt's warfarin and, in particular, to conduct an INR test. However, if Dr Ajao had perused his computerised note of 21 September 2005 he would have seen reference to the warfarin regime, albeit only in terms of his plan that Mr Brunt should complete the course. That notation in itself would not necessarily have alerted Dr Ajao to the need for monitoring as the plan was quite the antithesis of anticoagulation monitoring.

5.3. Mr Brunt again presented to Dr Ajao two days later on 7 October 2005. According to Mrs Brunt, during the previous evening her husband had experienced problems passing urine and when he did so he had passed blood. He was also experiencing the

[15] Exhibit C3
[16] Transcript, page 110

same pains in his buttocks that he had complained about on and since the previous visit. On this occasion Dr Ajao requested diagnostic imaging in respect of Mr Brunt's pelvis and prostate. He has recorded that Mr Brunt presented in severe pain and was unable to void. Dr Ajao recommended hospitalisation and Mr Brunt was duly admitted that day. Mr Brunt's wife took him to the Port Lincoln hospital. When Mr Brunt was admitted, his wife completed a form that listed aspirin as the only medication that Mr Brunt was then taking. In Mrs Brunt's addendum statement[17] she explains this by saying that she could not remember the names of the medication that Mr Brunt was on at the time, which would include of course the warfarin – the commercial name of which in fact was not warfarin but Marevan. She states that she believed that the hospital would have his warfarinisation regime as part of their records. In the event, when Dr Ajao saw Mr Brunt in hospital on 8 October 2005, although he noted in the clinical record atrial fibrillation as part of Mr Brunt's medical history, he added the following:

> '(Not on warfarin)' [18]

I am not certain as to what was meant to have been conveyed by or derived from this notation other than that at the time of Mr Brunt's hospitalisation on this occasion he was not being administered warfarin. It would not be surprising if Mr Brunt were taken off warfarin during the course of this admission given that when he was treated and catheterised for his urinary retention his urine was noted to be bloodstained. Dr Ajao knew of this fact because there are notations to that effect in the clinical record in his own handwriting[19]. Dr Ajao also knew that Mr Brunt had been on warfarin up to that time because he was the practitioner who had prescribed it. If there was any connection to be drawn between blood in Mr Brunt's urine and his anticoagulation therapy, Dr Ajao did not draw it. I have already made reference to the fact that in Dr James' opinion haematuria in a patient on anticoagulation therapy would be regarded as an alarming symptom.

5.4. Dr Ajao saw Mr Brunt every day from the day of his admission on 7 October 2005 to the day of his discharge on 18 October 2005. During his admission Mr Brunt was also examined by the surgeon, Dr Fletcher. Dr Fletcher conducted a cystoscopy which is an examination of the bladder. Dr Fletcher's discharge letter of 18 October

[17] Exhibit c10C
[18] Exhibit C4, page 71
[19] Exhibit C4, page 72

2005[20] describes the principal diagnosis of Mr Brunt's latest episode as being 'urinary outflow obstruction related to clot retention'. Dr Fletcher indicates in his summary that he suspected that a clot had been the cause of Mr Brunt's problems. In any event there was an area of inflammation identified and diathermy to stop any bleeding was conducted. After a successful trial of voiding following this procedure, Mr Brunt was discharged with the stated expectation that Dr Ajao would follow him up in due course.

5.5. There is insufficient evidence from which a conclusion could be drawn that the episode of bleeding or clotting was specifically the result of anticoagulation or over-anticoagulation. In any event it appears that Dr Ajao took nothing from this bleeding episode as any indication of anticoagulation and it certainly did not alert him to any need to investigate any such connection. In this regard, I do not understand there to have been any or any sufficient means by which Dr Fletcher ought to have drawn any such connection.

6. Events following Mr Brunt's discharge from hospital in October 2005

6.1. Following Mr Brunt's discharge from hospital on 18 October 2005, he consulted with Dr Ajao in his rooms on 21 October 2005. On this occasion Dr Ajao prescribed digesic tablets and tryptanol for pain relief and warfarin. Dr Ajao's computerised note of 21 October 2005 does not reveal the thought processes underlying the prescription for warfarin. In his evidence, Dr Ajao asserted that he could not think of why he had commenced Mr Brunt on warfarin again, although he envisaged that if Mr Brunt still had ongoing problems with AF this might provide an explanation[21]. Given that there is no suggestion that Mr Brunt was afflicted with any condition that might require anticoagulation other than AF, I found Dr Ajao's asserted inability to immediately assign a definitive reason for prescribing warfarin on this occasion as puzzling at best and unprofessional at worst. It is absolutely clear that Dr Ajao recommenced Mr Brunt on warfarin because of ongoing AF. There would be nothing unusual about this given that it is very common for people suffering from AF to be placed on a warfarin regime for the remainder of their lives. In any event, the reason why he was recommenced on warfarin is somewhat overshadowed by Dr Ajao's failure, yet again, to monitor Mr Brunt's anticoagulation status. Dr Ajao said that he

[20] A copy of which is at page 6 of Exhibit C4
[21] Transcript, page 130

could not recollect whether, on this occasion, the dangers of warfarin and the need to monitor the anticoagulation levels with blood tests was discussed. Dr Ajao did say that his plan would have been for Mr Brunt to come back for a follow-up of his INR levels, or at least that this should have been the plan[22]. Dr Ajao suggested that there ought to have been a recall on the practice's medical director system for Mr Brunt to have attended for the purpose of blood testing. In any event, Dr Ajao acknowledged that he should have requested an INR follow-up and conceded that he did not do that and that none were requested by him at any time subsequent to Mr Brunt's consultation on 21 October 2005.

6.2. It is fair to say that Dr Ajao was at a loss to sensibly explain why, again, he did not institute any form of anticoagulation monitoring. This Court is similarly perplexed.

6.3. On this occasion the prescription was again for 5mg, 1 tablet daily and Mr Brunt was this time supplied with 50 tablets. Mrs Brunt retained this container as well. Mr Brunt was again to be hospitalised on 11 November 2005, two days before his death. On the assumption that Mr Brunt recommenced taking the tablets on 21 October, that he took 1 daily in accordance with the prescription, and took the last of the tablets on 11 November 2005, he ought to have taken 22 tablets by that date leaving 28 remaining in the container. Mrs Brunt states that there were 31 tablets remaining in the container supplied on 21 October 2005 meaning that Mr Brunt had consumed 19. Mr Brunt not remembering to take his tablet on some occasions may well explain the discrepancy.

6.4. In her statement, Mrs Brunt says that she was present during the appointment of 21 October 2005 when Dr Ajao prescribed her husband warfarin. She says that she did not hear Dr Ajao speak with her husband about the taking of warfarin or the monitoring of warfarin levels. An inference is available, which I draw, that Mr Brunt took his warfarin medication in accordance with the prescription, namely 1 per day with perhaps a small number of exceptions. The fact that on 11 November 2005 he had an INR level of greater than 10 would be in keeping with an unmonitored and unchecked course of warfarin self-administration over a period of time. The number of tablets remaining in the container also bears out this scenario.

[22] Transcript, page 133

6.5. Again, Dr Ajao's neglect to impress upon Mr Brunt the dangers of warfarinisation and the need for monitoring is inexplicable.

6.6. At the consultation of 21 October, it was decided that the local physician, Dr McLeay, would be asked to manage Mr Brunt's chronic pains. A referral letter was that day compiled by Dr Ajao and an appointment was made for Dr McLeay to see Mr Brunt on 17 November 2005 at 4pm. The appointment was not kept because of Mr Brunt's death on 13 November 2005. The letter, in essence, refers Mr Brunt to Dr McLeay for the management of the pains to his buttocks which Dr Ajao describes as having existed 'on and off for the past few months'. He also refers to an acute episode a few weeks earlier that had been associated with the urinary tract obstruction. The letter sets out in brief terms Mr Brunt's past history, which includes reference to the transient ischaemic attack in September 2005 and AF against which the date of 21 October 2005 is mentioned. If there was any doubt about it, this to my mind confirms that Dr Ajao had diagnosed or confirmed the existence of AF in Mr Brunt and that this was the reason for the current prescription for warfarin. The letter lists Mr Brunt's current medications and includes in that list warfarin by way of 5mg tablet taken once daily. Dr McLeay was to examine Mr Brunt at the Port Lincoln Hospital on 11 November when Mr Brunt was again admitted. He did not see Mr Brunt at any time prior to that occasion.

6.7. Dr Ajao was also not to see Mr Brunt again until 11 November 2005. However, on 23 October 2005, two days after the previous presentation, Mr Brunt telephoned Dr Ajao's surgery and a further prescription for digesics was provided for pain.

7. The events of 11 November 2005

7.1. According to the statement of Mrs Carole Brunt, the pain in Mr Brunt's buttocks and legs persisted to the point where by 10 November 2005 he was experiencing an unbearable level of distress. He was up all of that night in great pain and distress. At about 11am on 11 November Mr Brunt told his wife that he was also experiencing a severe headache. Mrs Brunt had already made an appointment for her husband to see Dr Ajao at 4pm but due to his deterioration, she was of a mind to take her husband directly to the Port Lincoln Hospital. When she again telephoned Dr Ajao's surgery an arrangement was made for her to bring Mr Brunt directly into the surgery where Dr

Ajao would see him. On the way from Coffin Bay to Port Lincoln Mr Brunt was in pain and was also experiencing nausea at this time.

7.2. Dr Ajao saw Mr Brunt at his surgery in the early afternoon. Mrs Brunt maintains that the pain to Mr Brunt's buttocks and legs and the headache were all explained to Dr Ajao. During the course of this consultation Mrs Brunt says that her husband was holding his hand over one side of his eyes and spent most of the time with his eyes closed. At one point Mr Brunt vomited in the surgery. Mr Brunt was manifestly quite unwell and so a decision was made to have him transferred to the hospital. Mrs Brunt drove him to the hospital. The plan was that the physician Dr Rufus McLeay, who was due to see Mr Brunt in any event on 17 November, would see Mr Brunt at the hospital that afternoon in order to assess him.

7.3. There is an issue as to whether or not Mr Brunt did in fact complain of a headache during his consultation with Dr Ajao that afternoon. Dr Ajao had no recollection of a complaint of headache and as far as the practice's clinical record of this presentation is concerned, there is no specific reference in Dr Ajao's notes to a headache. The pains are described in the notes as pertaining to the right thigh radiating to the buttocks and that they were excruciating. Dr Ajao also completed the first page of the Port Lincoln Hospital progress notes in respect of Mr Brunt's admission on 11 November 2005. The note is timed at 1350 hours. As I understand it this document was not actually compiled by Dr Ajao while Mr Brunt was in the hospital but at a time before he was admitted. There is no reference to headache in Dr Ajao's handwritten hospital notes. The presenting complaint is described in those notes as thigh pain radiating to the buttocks with a possible diagnosis of severe myalgia.

7.4. I did not understand Dr Ajao's lack of acknowledgement that Mr Brunt had complained of a headache during his consultation on the afternoon of 11 November to be an outright denial of the same. It is open to me to accept Mrs Brunt's assertions that her husband was experiencing a headache at the time of the consultation and that specific made reference was made to that in Dr Ajao's presence. Notwithstanding Dr Ajao's lack of recollection and the fact that there is no note about the headache in either his surgery's clinical record or the note that was compiled for the purposes of the hospital admission, in all the circumstances I find that Mr Brunt was experiencing a headache at the time of his consultation in Dr Ajao's rooms and that reference was made to that fact.

7.5. In any event, it seems plain that whatever was said, Dr Ajao drew no connection between the existence of headache and Mr Brunt's warfarinisation. Nor did the possibility of an intracranial bleeding episode occur to Dr Ajao. It certainly does not form part of any differential diagnosis at that time.

7.6. Within Dr Ajao's handwritten admission note is a quite visible and legible summary of Mr Brunt's previous medical history which includes reference to Mr Brunt's bilateral stents, his TIA, his ankylosing spondylitis and most importantly there is a reference in Dr Ajao's handwriting as follows:

> 'AF on Warfarin' [23]

The only other contemporaneous records made at the time of Mr Brunt's actual arrival and admission to the hospital that afternoon consisted of a computer generated admission document timed at 2:31pm as well as the hospital patient election form that was compiled on Mr Brunt's behalf by his wife. Neither document makes any reference to Mr Brunt's symptoms on admission. The medication therapy chart in respect of this admission refers to the administration of 5mg of warfarin at 0800 hours on 11 November 2005, which of course is several hours prior to Mr Brunt's admission. I can only assume that this information came from either Mr Brunt or his wife.

7.7. Dr Ajao himself was not to attend at the Port Lincoln Hospital until later that evening and so had no further role to play in Mr Brunt's assessment and diagnosis within the hospital that afternoon. As I say, the expectation was that Dr Rufus McLeay would see Mr Brunt and this indeed did take place, albeit not until Dr McLeay was available for this purpose which is noted to have taken place at about 5:30pm.

7.8. In the meantime a nursing note that is apparently timed at 4:30pm records in the handwriting of the relevant staff member that Mr Brunt was complaining of, or had complained of, a headache for which Panadol had been given at 3:15pm with no relief. It also records that another painkiller was administered at 4pm. The effect of that is not recorded. This nursing note was made directly below Dr Ajao's initiating note to which I have referred. Dr Ajao's note and the nursing note occupy the first page of Mr Brunt's progress notes at the hospital in respect of this admission.

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[23] Exhibit C4, page 27

7.9. Dr McLeay and his associate examined Mr Brunt at approximately 5:30pm on 11 November 2005. Dr McLeay made the notes of his examination on the reverse side of the page on which Dr Ajao's and the nurse's notes appear. Dr McLeay provided written information to the investigating police in response to certain questions asked of him about his examination of Mr Brunt. Dr McLeay also gave evidence in the Inquest. In the written information that he provided to the police[24], Dr McLeay confirms that Mr Brunt had a headache and that, according to Mrs Brunt, it came on when the pain in her husband's legs was worse. Dr McLeay considered a number of possible diagnoses, but to him nothing really stood out. His written response to the police records that he recalled 'feeling nonplussed' about Mr Brunt's presentation. In his evidence Dr McLeay confirmed that Mr Brunt's presentation more or less confounded him.

7.10. The headache that Mr Brunt was experiencing was of course in keeping with a bleeding episode within Mr Brunt's head. He had also been nauseous as evidenced by his having vomited in Dr Ajao's surgery. To my mind the conclusion that on the afternoon of 11 November 2005 Mr Brunt had been experiencing such a bleeding episode is now, in the light of his symptomatology, inescapable. He continued to deteriorate over the next few hours to the point where he became totally unresponsive and the fact that he had suffered a stroke of some description was obvious. Whether that same conclusion was available on the material that was considered by Dr McLeay is another matter. None of the tests that Dr McLeay performed would have revealed a subdural haematoma or any other intracranial bleeding.

7.11. Importantly, the one matter that Dr McLeay did not have any appreciation of during the course of his examination was that Mr Brunt had been on warfarin. If he had known that, I am sure it would have significantly changed the course of Mr Brunt's management that day and evening. I have already referred to the fact that Dr Ajao's admission note made it reasonably plain that Mr Brunt's medical history included AF for which he was on warfarin. That note was available to Dr McLeay because Dr McLeay wrote the note of his own examination on the reverse side of Dr Ajao's note. Notwithstanding this, Dr McLeay did not notice the reference to warfarin. There was probably no other available means to Dr McLeay to establish Mr Brunt's warfarinisation other than this note. I do not know when the reference in the

[24] Exhibit C8b

medication chart to Mr Brunt having taken warfarin that day was written. There is no evidence that Mrs Brunt mentioned her husband's warfarinisation either. Insofar as it might be suggested that Dr Ajao's letter of referral to Dr McLeay of 21 October 2005 should on 11 November have alerted Dr McLeay to Mr Brunt's warfarin status, I would reject that. On 11 November 2005, Dr McLeay had yet to examine Mr Brunt in the context of Dr Ajao's referral. There could have been no reasonable expectation that the contents of the referral letter would or should have been uppermost in Dr McLeay's mind at the time of his examination of Mr Brunt on 11 November 2005.

7.12. Be all that as it may, in Dr McLeay's written responses he suggests that if he had been aware from Dr Ajao's note that Mr Brunt was on warfarin he would have considered a retroperitoneal haematoma as possibly being the cause of Mr Brunt's bilateral leg pain but would not necessarily have considered the possibility of subdural haematoma. However, knowledge of the warfarinisation would have made an important indirect difference to the way Dr McLeay would have viewed Mr Brunt's presentation. In his evidence at the Inquest Dr McLeay told me that if he had seen the reference to the warfarin therapy, he would have at least ordered an urgent INR test[25] and have corrected the INR if it was raised, although this would have taken some hours. In the event, we know that later that night after Mr Brunt was thought to have experienced a stroke, his INR was established as greater than 10. This of course is an alarming figure. If it had been detected at around the time of Dr McLeay' examination, it would inevitably have dictated a correction of Mr Brunt's anticoagulation status to be conducted as soon as possible.

7.13. However, the more significant facet of the very high INR level, had it been revealed at the time of Dr McLeay's examination, is that in Dr McLeay's assessment he '*would have gone back and revisited the headache*'[26]. This would have prompted him to order a CT scan of the patient's head. A CT scan is one means by which a subdural haematoma might be diagnosed. Thus, although the mere revelation that Mr Brunt was on warfarin would not in itself have led directly to a clinical diagnosis of an intracranial bleed, in the context of a man presenting with a headache and whose INR was at a dangerous level, the tests that would lead to such a diagnosis, such as a CT scan, would plainly have been indicated.

[25] Transcript, page 265
[26] Transcript, page 292

7.14. In the Port Lincoln Hospital, at that time of the day, the only radiographer who could use the CT scanner would have to have been located. The person is not always on-call. The attendance of the radiographer would have taken some time. Once the radiographer was brought in, the machine would have required preparation and Dr McLeay suggested that all of this might have taken at least an hour[27]. If a subdural haematoma was detected, Dr McLeay suggested that it would have been unlikely that anyone in Port Lincoln would have been prepared to administer an emergency burr hole in the patient's cranium. The alternative would have been for Mr Brunt to have been retrieved, which I took to mean retrieved to Adelaide, as a matter of urgency.

7.15. Correction of Mr Brunt's over-anticoagulation would have required the patient being given vitamin K and possibly fresh frozen plasma which is faster than vitamin K. In any event, whether the treatment was by way of vitamin K or the administration of fresh frozen plasma, the reversal of the anticoagulation would have taken some hours.

7.16. In the event, in the absence of any realisation on his part that Mr Brunt was on warfarin, Dr McLeay's differential diagnoses included a possible vascular cause and to this end Dr McLeay planned to discuss Mr Brunt's presentation with a vascular surgeon the following morning. Dr McLeay also considered that the origin of Mr Brunt's pain may have been irritation of the of the sacral nerve roots. He planned to discuss this possibility with a neurologist the following morning. Other possible causes that came to Dr McLeay's mind were joint inflammation relating to his ankylosing spondylitis for which blood tests were planned for the following morning, and a possible malignancy, noting that Mr Brunt was an ex-smoker. As to this, Dr McLeay ordered a chest X-ray for the following morning. His plan was to obtain the advice to which I have referred and to provide pain relief to Mr Brunt in the interim. In his evidence, Dr McLeay summed up his views about Mr Brunt's presentation in the following way:

> 'The perception that I got from looking at the man on the bed was that he had overwhelming pain in his legs and the headache really seemed to be something else. You know, a kind of a secondary consideration, really stretching my ability to think laterally. You know, it would have been a Herculean task to jump from the pain in the legs to worrying about whether there was something else causing the headache that he'd had for three weeks or just - you know, it doesn't make clinical sense to me.' [28]

[27] Transcript, page 270
[28] Transcript, page 294

In summary, while Dr McLeay would not necessarily have considered clinically the possibility of a subdural haematoma simply by virtue of Mr Brunt's warfarinisation, if he had come to know about it by reading Dr Ajao's note he almost certainly would have performed an urgent INR test and arranged for a CT scan of the head and reversal of Mr Brunt's anticoagulation. I think it is fair to say that Dr McLeay himself would accept that in all of the circumstances it would have been far better if he had thoroughly read Dr Ajao's note.

8. Mr Brunt's eventual collapse and death

8.1. Dr McLeay left the hospital. The nursing notes reveal that at 6pm Mr Brunt was sleeping. When checked at 8pm Mr Brunt is recorded as having been found lying on his back. The bed was obviously wet, his mouth was open, and he was breathing loudly. Mr Brunt did not respond to verbal commands. Mr Brunt was essentially rigid and it is clear to me that at that time he had suffered a significant cerebral insult.

8.2. Dr McLeay was brought in to examine Mr Brunt at approximately 9pm and to him it was clear that by then Mr Brunt was essentially irretrievable and that he would inevitably die. Dr McLeay recorded at the time that in his view it was very likely that Mr Brunt had suffered a brain stem cerebrovascular accident and he judged his prognosis as very poor. Mr Brunt's family was notified.

8.3. Dr Ajao also attended at the Port Lincoln Hospital that evening and examined Mr Brunt. Notwithstanding the apparent hopelessness of Mr Brunt's position at that time, Dr Ajao arranged for a retrieval team from the Royal Adelaide Hospital to fly to Port Lincoln. Mr Brunt was that morning retrieved to the RAH where he died on 13 November 2005. At some point prior to the retrieval, as already indicated, Mr Brunt's INR was established as being greater than 10.

9. The evidence of Dr Lloyd

9.1. I have already referred to some of Dr Lloyd's evidence. He is an expert haematologist. He provided a report to the State Coroner[29] and he gave evidence at the inquest. In his report, he expressed the view that in both instances where Mr Brunt was prescribed warfarin, he should have been monitored in the manner I have discussed. He also referred to the inappropriateness of the prescription that was

[29] Exhibit C9

couched in terms of the tablets being taken until they were completed. I agree with those opinions.

9.2. Dr Lloyd also referred to the unfortunate delay in establishing Mr Brunt's dangerous over-anticoagulation on 11 November. In his evidence, Dr Lloyd suggested that some practitioners, even armed with knowledge of the fact that Mr Brunt had been on warfarin, may not have performed an INR test in respect of Mr Brunt immediately upon his admission on 11 November. He said '*If you're obsessive you would do it, but I wouldn't be surprised if it wasn't done, …*'[30]. This seems to be a charitable observation, and it will be remembered that Dr McLeay himself would have regarded the need to check the INR level as urgent in all the circumstances and it is not difficult to see why.

10. Conclusions

10.1. On 17 September 2005 the deceased, Mr Brunt, experienced an episode on the Coffin Bay Golf Course as a result of which he was admitted to the Port Lincoln Hospital. He was there diagnosed as having probably suffered a transient ischaemic attack. He was also diagnosed with atrial fibrillation for which he was commenced on warfarin anticoagulation therapy.

10.2. Dr Kay Ajao was Mr Brunt's general practitioner. On 19 September 2005, the day of Mr Brunt's discharge from the Port Lincoln Hospital, Dr Ajao prescribed a course of warfarin. The prescription was for one tablet to be taken daily, the size of the tablet being 5mg. As a result of this prescription, Mr Brunt continued to take the warfarin tablets as prescribed. Dr Ajao failed to initiate any monitoring of Mr Brunt's INR anticoagulation levels. There is no evidence that Mr Brunt himself gained any understanding of the need for his INR levels to be monitored, either from a medical source, a pharmacological source or from any literature. It is more likely than not that Mr Brunt continued to take the warfarin as prescribed in the belief that he should take the warfarin tablets daily without interruption. But he also took them in ignorance of the fact that the monitoring of his INR levels was essential.

10.3. Mr Brunt continued to take the warfarin as prescribed until he was again hospitalised in early October 2005 in relation to an episode of urinary retention. Mr Brunt was

[30] Transcript, page 314

hospitalised in the Port Lincoln Hospital between 7 October and 18 October 2005 during which he was not taking warfarin. A cystoscopy revealed that Mr Brunt probably had an episode of bleeding within his urinary tract. It is not established as to whether or not this episode had any connection with Mr Brunt's previous regime of anticoagulation. In any event, no such connection appears at the time to have been drawn in the mind of any medical practitioner.

10.4. Following Mr Brunt's discharge from the Port Lincoln Hospital on 18 October, 2005 Dr Ajao saw Mr Brunt in his surgery on 21 October. Dr Ajao again prescribed warfarin for Mr Brunt and I find that the reason for this was Mr Brunt's atrial fibrillation. The prescription on this occasion was for Mr Brunt to take one tablet daily. Again, Dr Ajao did not initiate any monitoring of Mr Brunt's INR levels or advise him in relation to the same. It is apparent to me that Mr Brunt did not have any other source of information that would have alerted him to the need for his INR levels to be monitored. I find that Mr Brunt continued to take the warfarin as prescribed in ignorance of the fact that his anticoagulation status should be monitored.

10.5. On 11 November 2005 Mr Brunt presented to the rooms of Dr Ajao complaining of pain in his legs and buttocks as well as a headache. In my view it is more probable than not that the headache was a reflection of bleeding taking place within Mr Brunt's cranium. Mr Brunt was again admitted to the Port Lincoln Hospital where Dr McLeay examined him. Dr McLeay was unaware of the fact that to that point in time Mr Brunt was on warfarin notwithstanding that this fact had been recorded in the entry within Mr Brunt's progress notes that had been compiled by Dr Ajao that afternoon. Had Dr McLeay been aware of that notation, I find that it is more probable than not that he would have ordered an urgent INR test in respect of Mr Brunt which would have revealed an INR level greater than 10 which is a very dangerous level. This to my mind, together with the fact that Mr Brunt had presented with a headache and had complained of the same throughout that afternoon, would inevitably have led to a diagnostic CT scan of his head being conducted. As well, steps would have been taken to correct Mr Brunt's over-anticoagulation.

10.6. At about 8pm on the evening of 11 November 2005 Mr Brunt's condition was noted to have deteriorated significantly and an assessment was made that he had suffered some cerebral insult. This of course turned out to be the subdural haematoma that the pathologist Dr Ross James identified at autopsy.

10.7. I find that Mr Brunt died from an acute right subdural haematoma.

10.8. In my opinion it is clear that Mr Brunt's subdural haematoma was the product of excessive and uncontrolled anticoagulation therapy. I note that Mr Brunt ceased taking warfarin during the period of hospitalisation between 7 October and 18 October. I therefore do not know what Mr Brunt's anticoagulation level was by the time of his discharge from hospital on that occasion. In any event I am totally satisfied that over-anticoagulation as of 11 November 2005 was the direct result of Mr Brunt's consumption of warfarin as prescribed. Whether that level of anticoagulation was the product of the second prescription in combination with the first prescription, or was exclusively the product of the warfarin consumed pursuant to the second prescription, is not material. Both prescriptions had been instigated by Dr Ajao and Mr Brunt's consumption of warfarin pursuant to both prescriptions was unmonitored and uncontrolled. In any event the dangerous level of over-anticoagulation revealed to be in existence on 11 November 2005 was the result of a failure of his anticoagulation status, in particular his INR levels, to be monitored and controlled.

10.9. The responsibility for the monitoring of Mr Brunt's anticoagulation status and the need to keep Mr Brunt fully and appropriately informed about the same at all times fell squarely upon Dr Ajao. Dr Ajao's failure to instigate the monitoring and control of Mr Brunt's anticoagulation status in respect of two separate prescriptions of warfarin is in my assessment inexplicable on any basis other than by an egregious and unmitigated level of neglect on his part. Dr Ajao himself was quite unable to offer any sensible explanation as to why necessary and routine medical procedures were not adhered to in this instance.

10.10. I am satisfied that at the time with which this Inquest is concerned Dr Ajao knew of the necessity to monitor a patient's anticoagulation levels whilst on warfarin. Notwithstanding this, his prescription in the first instance in September 2005, and his plan that Mr Brunt should take the entirety of the prescription and then revert to aspirin, is not consistent with the level of expertise that would be expected of a competent general practitioner.

10.11. At the time with which this Inquest is concerned Dr Ajao, having only recently migrated to Australia, was under the supervision of Dr Adayemi. Dr Adayemi did not reside in Port Lincoln for the most part. Dr Ajao operated the Napoleon Street

practice autonomously at all material times. In 2007 Dr Ajao passed the necessary examinations for his admission as a Fellow of the Royal Australian College of General Practitioners. To my mind the events as described in these findings are worthy of further consideration by Dr Ajao's overarching professional body. I intend to furnish the Medical Board of South Australia with a copy of these findings for their information and further action should such be considered appropriate.

10.12. There is no evidence before me as to whether or not the pharmacy that filled Mr Brunt's prescriptions provided any oral or written information in respect of the need for monitoring. I note that both prescriptions were enclosed within a plastic container that provides no information other than the bare bones of the prescription itself. In any event, the obligation to inform Mr Brunt as to the need for monitoring was upon his medical practitioner, Dr Ajao. In my view it could not be said that Dr Ajao was absolved of any such obligation simply by virtue of information that may or may not have fortuitously been provided by a pharmacist.

10.13. In my opinion Mr Brunt's death was caused by the following acts and omissions of Dr Ajao, namely his acts of prescribing warfarin for Mr Brunt and his neglect of professional duty in failing to advise Mr Brunt of the need for monitoring of his anticoagulation status, his failure to instigate and maintain such monitoring and his failure to instigate a regime of control over Mr Brunt's anticoagulation status. While I make that finding on the balance of probabilities, I am mindful of the need to have regard to the seriousness of the allegations made and the gravity of the possible consequences of such a finding and that such a finding should not be made lightly[31]. To my mind the evidence is support of this finding is cogent and compelling. The conclusion that I draw from that evidence is in my view equally cogent and compelling. It is a conclusion that I reach with certainty.

10.14. There is no reason to suppose that an appropriately monitored and controlled regime of warfarin therapy would have led to Mr Brunt's death. In my view, Mr Brunt's death could and should have been avoided.

10.15. It is impossible to determine whether, if bleeding had been detected within Mr Brunt's head at the time of Dr McLeay's examination or earlier, appropriate medical intervention may have arrested the bleeding and have saved Mr Brunt's life.

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[31] **Briginshaw v Briginshaw** (1938) 60 CLR 336, **Neat Holdings Pty Ltd v Karajan Holdings Pty Ltd** (1992) 67 ALJR 170)

11. Recommendations

11.1. Pursuant to section 25(2) of the Coroner's Act 2003 I am empowered to make recommendations that in the opinion of the Court might prevent, or reduce the likelihood of, a recurrence of an event similar to the event that was the subject of the Inquest. The difficulty about crafting or implementing any recommendations that might prevent a recurrence of what happened to Mr Brunt is that the need for monitoring of INR levels of a patient who is being administered warfarin is already well understood within the medical profession. As seen, Dr Lloyd suggested that warfarin therapy, and how to manage it appropriately, is already taught well during medical courses conducted in this country.

11.2. That Dr Ajao failed to implement any regime of management in Mr Brunt's case is explained more by a level of neglect on his part to implement well understood measures. That said, I do not know for certain what Dr Ajao's precise level of knowledge and expertise was at the time with which this Inquest is concerned. He was not educated in Australia. On Dr Ajao's own admission there was no discussion between him and his supervisor Dr Adayemi about this particular case. There is also no evidence before me as to the general picture as far as the knowledge of warfarin management protocols is concerned amongst overseas doctors generally. It may well be the case that there is now an identified need for the knowledge and competence of overseas medical practitioners to be scrutinised more carefully, particularly in relation to potentially dangerous medical practices such as anticoagulation therapy.

11.3. The other matter of concern is whether at the pharmacological level information about the need for monitoring ought to be provided to persons whose warfarin prescriptions are being filled. Some might say that the imposition of such a requirement is to place an undue burden on pharmacists. This might especially be so given that the fundamental obligation to provide medical advice and to administer whatever monitoring regime is appropriate in relation to a specific drug is upon the medical practitioner. It might be argued that there is no warrant for such an obligation being imposed, even in a fail-safe way, upon the actual supplier of the dangerous product. It is difficult for this Court to pass definitive comment on the subject. All I can say by way of any recommendation in relation to this issue is that it would not be inappropriate for the Department of Health to give appropriate consideration to that matter.

11.4. On Dr McLeay's evidence there was at the time of the events with which this Inquest is concerned a need for more accessible radiological services. The potential delay in securing a radiographer at short notice after hours was clearly an undesirable state of affairs.

11.5. Dr McLeay also referred to the fact that as far as he was aware there was nobody in Port Lincoln who was either capable or willing to perform an emergency parietal burr hole procedure. It seems to me that if that is still the position, it is high time someone acquired the necessary expertise.

11.6. The fact that Mr Brunt was on warfarin was noted in Dr Ajao's admission notes of 11 November 2005. It seems to me that important information such as that should be displayed more prominently in the clinical record and in any case be drawn to the attention of the examining medical practitioner.

11.7. I make the following recommendations:

(1) That the Department of Health, in conjunction with the Medical Board of South Australia, conduct an investigation in relation to the level of knowledge, expertise and experience of overseas trained medical practitioners in respect of the prescription of warfarin and the need to maintain adequate monitoring of anticoagulation levels in the patient so prescribed; and if necessary implement appropriate measures to ensure that overseas trained practitioners are not permitted to practice until they have demonstrated a satisfactory level of such knowledge, expertise and experience;

(2) That the Department of Health, in conjunction with the Pharmacy Board of South Australia, give consideration to whether it is necessary for pharmacists who fill prescriptions for the drug warfarin to impart oral or written information to the person so prescribed in respect of the need for monitoring of anticoagulation levels;

(3) That the Department of Health promulgate a brochure containing information as to the need for patients who are prescribed warfarin to be monitored and that such brochure be made available for distribution by general practitioners to their patients;

(4) That the management of the Port Lincoln Hospital review the efficiency of its after hours radiographical and radiological services;

(5) That the management of the Port Lincoln Hospital undertake the training of a medical practitioner or practitioners to enable them to perform emergency parietal burr hole procedures;

(6) That the management of the Port Lincoln Hospital ensure that upon the presentation of patients who are on warfarin or other anticoagulant therapy that this fact is displayed prominently in the patient's clinical record and that in any event the same is specifically drawn to the attention of the examining medical practitioner.

Key Words: *Warfarin; Medical Treatment - Medical Practitioner; Inexperience*

In witness whereof the said Coroner has hereunto set and subscribed his hand and Seal the 30th day of July, 2009.

Deputy State Coroner

Inquest Number 6/2009 (2909/2005)