IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

Court Reference: COR 2008 00913

# FINDING INTO DEATH WITH INQUEST

*Form 37 Rule 60(1)*
*Section 67 of the* ***Coroners Act 2008***

**Inquest into the Death of: Salvatore (Sam) ACCARDO**

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| Delivered On: | 31 January 2013 |
| Delivered At: | Coroners Court of Victoria<br>Level 11, 222 Exhibition Street<br>Melbourne 3000 |
| Hearing Dates: | 8, 9 and 10 February 2012 |
| Findings of: | Coroner Paresa Antoniadis SPANOS |
| Representation: | Mr A. E. HILL of Counsel, instructed by Mr L. Kimonides from Slater & Gordon, appeared on behalf of Mrs M. ACCARDO.<br>Mr C. J WINNEKE of Counsel, instructed by Mr R. Perry from Perry Maddocks & Trollope, appeared on behalf of Dr F. LUCENTE.<br>Mr J. E. GOETZ of Counsel, instructed by Mr L. Rees from Tresscox, appeared on behalf of Dr W. H. BAIG.<br>Mr S. P. CASH of Counsel, instructed by Ms Emma Topp, DLA Piper, appeared on behalf of AUSTIN HEALTH. |
| Police Coronial Support Unit: | Leading Senior Constable Kelley RAMSEY, assisting the Coroner |

I, PARESA ANTONIADIS SPANOS, Coroner,
having investigated the death of SALVATORE ACCARDO
and having held an inquest in relation to this death
on 8, 9 and 10 February 2012 at Melbourne
find that the identity of the deceased was SALVATORE ACCARDO
born on 8 May 1960
and that the death occurred on 3 March 2008
at 15 Sheridan Way, Roxburgh Park, Victoria 3064
**from:**

1 (a) PERICARDIAL TAMPONADE
1 (b) RUPTURED DISSECTING THORACIC AORTIC ANEURYSM
1 (c) MARFAN'S SYNDROME

**in the following circumstances:**

BACKGROUND & PERSONAL CIRCUMSTANCES[1]

1. Salvatore Accardo was a 47 year old married man and father of two adult daughters Francesa and Clara. He resided with his wife Maria Accardo in Roxburgh Park. Mr Accardo was born in Italy and came to Australia in 1988 when he was in his late twenties. He had a basic command of English and was employed at Tibaldi Smallgoods in Coburg as a food handler.

2. Apart from documented hypercholesterolaemia, Mr Accardo was a smoker who generally enjoyed good health, and avoided doctors and hospitals as far as possible. However, some 20 years ago, Mr Accardo required treatment for cataracts. Given his relative youth, his treating Ophthamologist Dr Laurence Sullivan, referred him to Cardiologist Dr George Leitl who

[1] Paragraphs 1 - 12 are a summary of facts which were uncontentious, and provide a context for those aspects of clinical management and care which were contentious and will be discussed in some detail from paragraph 21 onwards.

diagnosed Marfan's syndrome, a connective tissue disorder,[2] and commenced treatment with Atenolol.[3]

3. According to Mrs Accardo, Dr Leitl told Mr Accardo that he had an "enlarged aorta" and would require surgery "further down the track".[4] Mr Accardo was reviewed by Dr Leitl about three to four times, as I understood it, in the years immediately following diagnosis. However, for at least the ten years immediately preceding his death, Mr Accardo was not reviewed in relation to Marfan's syndrome either by Dr Leitl, or it appears any other cardiologist. He did continue to take Atenolol as prescribed by a general practitioner.[5] As recently as August 2006, Mr Accardo underwent treatment for detached retina/s apparently thought to relate to Marfan's syndrome.[6]

MR ACCARDO'S LAST ILLNESS (22 FEBRUARY – 3 MARCH 2008)

4. At about 1500 hours on Friday 22 February 2008, Mr Accardo became unwell at his workplace and an ambulance was called. Although his heart rate and blood pressure improved somewhat, the ambulance paramedics were concerned about his ongoing chest pain and profuse sweating and called for assistance from a MICA unit at 1526 hours. MICA paramedics responded and were in attendance from about 1540. They took a handover from

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[2] Marfan's syndrome defined in Dorland's Illustrated Medical Dictionary, 31st edition, page 1862, as "one of the manifestations of abnormal fibrillin metabolism, a congenital disorder of connective tissue characterised by abnormal length of extremities, especially fingers and toes, subluxation of the lens, cardiovascular abnormalities (commonly dilatation of the ascending aorta), and other deformities. It is autosomal dominant disorder with variable degrees of expression, caused by mutations in the FBN1 gene, which encodes fibrillin-1."

[3] Atenolol belongs to the groups of drugs known as beta blockers. It prevents the heart from beating too quickly and is used primarily to treat irregular heart rhythms (arrhythmias), angina, and hypertension (high blood pressure). Atenolol may also be given after a heart attack to protect the heart from suffering further damage. It is marketed in Australia as Anselol, Atehaexal, GenRx Atenolol, Noten Tenormin and Tensig. See New Guide to Medicine & Drugs, The Royal Australian College of General Practitioners, 2008.

[4] Given the remoteness of his clinical management, Dr Leitl was not asked to provide a statement. It is thus unclear if this is an accurate account of what he told Mr Accardo, and if the enlargement of the aorta represented an aneurysm or dilatation of the aorta seen at that time.

[5] Statement of Mrs Accardo, Exhibit "B". Also borne out by the copy medical records provided by Somerton Road Medical Centre which were not tendered in evidence.

[6] Documents in the Somerton Road Medical Centre file indicate that GP Dr Kathrada, who generally treated Mr Accardo until he left the practice, referred him to Ophthalmologist Dr Laurence Sullivan, who in turn referred him to a Vitreoretinal Specialist Dr William Campbell. Transcript pages 222,

the ambulance crew and conveyed Mr Accardo to the Austin Hospital Emergency Department (ED) arriving at 1607 hours.[7]

5. Following a verbal handover, Mr Accardo was triaged at 1620 hours and assigned triage Category 2 – requiring assessment and treatment within ten minutes.[8] He was allocated a cubicle at 1623 hours, assessed by Registered Nurse Sarah Jayne Di Santo at 1630 hours, and first reviewed by Dr Mark Rugless, then a Senior Registrar within the ED at 1641 hours. Dr Rugless took a history from Mr Accardo, conducted an examination and reviewed his vital signs which led him to diagnose a presumed gastrointestinal illness. He initiated treatment with Buscopan, an oral Xylocaine viscous/Mylanta mixture, half a tablet of Anginine for presumed gastrointestinal colic and possible gastritis and oesophageal spasm form his vomiting, and fluids. Mr Accardo was reviewed by Dr Rugless about one hour later, and discharged home at about 2020 hours when it appeared he had responded to treatment.[9]

6. According to Mrs Accardo, her husband remained unwell over the weekend and continued to complain of cramping abdominal pain, not chest pain, but there were no appointments available at their GP clinic.[10]

7. First thing Monday morning, 25 February 2008, they attended Somerton Road Medical Centre where Mr Accardo was seen by Dr Wirasat Baig in the emergency/treatment room without an appointment, as he was so unwell. Dr Baig was a locum doctor who had not seen Mr Accardo before. He neither documented nor recalled being advised that Mr Accardo had been taken to the ED by MICA ambulance or otherwise. Based on the history given by Mr Accardo (and to some extent from Mrs Accardo) and his examination, Dr Baig also made a diagnosis of a gastrointestinal illness which he treated with intramuscular injections Buscopan (an

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[7] Statement of MICA Paramedic Debra Norbury, Exhibit "E".

[8] See Australasian Triage Scale and Australasian College for Emergency Medicine "Guidelines on the Implementation of the Australasian Scale in Emergency Departments". Category 1=Immediately life-threatening – Immediate simultaneous assessment and treatment. Category 2=Imminently life-threatening/Important time-critical treatment/Very severe pain – Assessment and treatment within 10 minutes (assessment and treatment often simultaneous). Category 3=Potentially life-threatening/Situational urgency/Severe discomfort or distress – Assessment and treatment start within 30 minutes, and so on.

[9] Statement of RN Di Santo, Exhibit "M", transcript page 248. First statement of Dr Rugless, Exhibit "F", transcript pages 118 and following.

[10] I note that the GP clinic noted in the medical records is Roxburgh Park Medical Centre (and not Somerton Road Medical Centre) to which a discharge summary would have been sent, if one were prepared. At the time the system in the ED was that the clinician would draft a discharge summary if he/she considered it was warranted. At the date of the inquest, the system in the ED had changed so that a computer-generated discharge summary was routinely sent to the GP nominated by the patient. Transcript pages 28-34, 167, 169, 178.

antispasmodic) and Maxolon (an antiemetic), and provided a prescription for Maxolon tablets.[11]

8. Mr Accardo returned to see Dr Baig on 26 February 2008. On this occasion, Dr Baig formed the view that Mr Accardo's gastrointestinal illness was resolving (although he still complained of some loose bowel motions) and that he had a new symptoms of right lower back or flank pain which he diagnosed as "lumbar sprain?", specifically documenting "nil renal angle tenderness".[12]

9. When he returned to the Somerton Road Medical Centre for the third day running on Wednesday 27 February 2008, Mr Accardo was seen by Dr Filomena Lucente. Again, although she had been treating Mrs Accardo for some time, Dr Lucente had not seen Mr Accardo as a patient before that day.[13] Dr Lucente was told of the recent ED presentation and the diagnosis of gastroenteritis, and noted the two previous consultations with Dr Baig as documented in the practice medical records. Following investigations in the practice,[14] and an examination which confirmed right renal angle tenderness, Dr Lucente made a provisional diagnosis of renal calculus.[15] She arranged a CT scan of the urinary tract for that afternoon, to be followed by a review of Mr Accardo later that day.[16]

10. Mr and Mrs Accardo returned for a late afternoon consultation with Dr Lucente on 27 February 2008. As the CT scan report indicated no urinary tract calculus or free abdominal

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[11] IM Buscopan 20mg, IM Maxolon 10 mg & Maxolon tablets 10 mg (three times daily). Statement of Dr Baig, Exhibit "J", transcript page 197 and following, esp 198, 208-209.

[12] Dr Baig's statement Exhibit "J" and transcript pages 210 and following.

[13] Transcript page 221-222.

[14] Urinanalysis was positive for blood, ketones and leukocytes. A mid-stream urine sample was also sent for microscopy and cultures, but results would not be known for some few days. Transcript pages 224-229.

[15] "Renal calculus" is defined as a concretion occurring in the kidney. If the stone is large enough to block the ureter and stop the flow of urine from the kidney, it must be removed by either major surgical or radiological fluoroscopy procedures. Mosby's Medical Nursing & Allied Health Dictionary, 4th edition, page 1348.

[16] See generally, statement of Dr Lucente, Exhibit "K".

fluid, Dr Lucente made a provisional diagnosis of pylonephritis,[17] prescribed antibiotics and analgesia and arranged an appointment for a further review on 3 March.[18]

11. There is no evidence before me of any further medical review or input between the second consultation with Dr Lucente in the late afternoon of 27 February 2008 and Mr Accardo's death in the early hours of 3 March 2008. According to Mrs Accardo, her husband continued to be unwell in the ensuing period. He had severe abdominal and back pain, and complained of fatigue. He was unable to return to work and spent most of the time resting.[19]

12. On 2 March 2008, Mr and Mrs Accardo went to bed early. It appears that some time later, Mr Accardo may have got up to take some medication.[20] At about 0100 hours on 3 March 2008, Mrs Accardo heard him make a strange snoring sound. He was unresponsive to her attempts to rouse him. A call was placed to 000. Mr Accardo could not be revived by ambulance officers who arrived a short time later.

## INVESTIGATION – SOURCES OF EVIDENCE

13. This finding is based on the totality of the material the product of the coronial investigation of Mr Accardo's death, that is the inquest brief compiled by my assistant Leading Senior Constable Kelly Ramsey from the Police Coronial Support Unit (PCSU); the statements/reports and testimony of those witnesses who testified at inquest and any documents tendered through them; and the final submissions of Counsel. All this material, together with the inquest transcript, will remain on the coronial file.[21] In writing this finding, I do not purport to summarise all the material/evidence, but will refer to it only in such detail

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[17] "Pyelonephritis" is defined as a diffuse pyogenic infection of the pelvis and parenchyma of the kidney. Acute pyelonephritis is usually the result of an infection that ascends from the lower urinary tract to the kidney … The onset of acute pyelonephritis is rapid, characterised by fever, chills, pain in the flank, nausea and urinary frequency. A urinanalysis reveals the presence of bacteria and white blood cells … Mosby's, op cit., page 1312.

[18] Statement of Dr Lucente, Exhibit "K". The medications prescribed were the antibiotic Keflex (cephalexin) 500mg four times daily for five days, and for analgesia, Panadeine Forte (500mg paracetamol and 30mg codeine) 1-2 tablets every four hours, as required.

[19] Statements of Mrs Accardo, Exhibits "A" and "B".

[20] I note that post-mortem toxicological analysis detected Ibuprofen (a non-steroidal anti-inflammatory drug marketed in Australia as Nurofen, Brufen and other names) at a "low" therapeutic level. See paragraph 18 below and the toxicology report in Exhibit "O", the balance of the brief.

[21] From the commencement of the *Coroners Act 2008* (the Act), that is 1 November 2009, access to documents held by the Coroners Court of Victoria is governed by section 115 of the Act.

as appears to me to be warranted by its forensic significance and the interests of narrative clarity.

## PURPOSE OF A CORONIAL INVESTIGATION

14. The purpose of a coronial investigation of a *reportable death*[22] is to ascertain, if possible, the identity of the deceased person, the cause of death and the circumstances in which death occurred.[23] The *cause* of death refers to the *medical* cause of death, incorporating where possible the *mode* or *mechanism* of death. For coronial purposes, the *circumstances* in which death occurred refers to the context or background and surrounding circumstances, but is confined to those circumstances sufficiently proximate and causally relevant to the death and not merely all circumstances which might form part of a narrative culminating in death.[24]

15. The broader purpose of coronial investigations is to contribute to the reduction of the number of preventable deaths through the findings of the investigation and the making of recommendations by coroners, generally referred to as the *prevention* role.[25] Coroners are also empowered to report to the Attorney-General on a death; to comment on any matter connected with the death they have investigated, including matters of public health or safety and the administration of justice; and to make recommendations to any Minister or public statutory authority on any matter connected with the death, including public health or safety or the administration of justice.[26] These are effectively the vehicles by which the prevention role may be advanced.[27]

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[22] The *Coroners Act 2008,* like its predecessor the *Coroners Act 1985*, requires certain deaths to be reported to the coroner for investigation. Apart from a jurisdictional nexus with the State of Victoria the definition of a reportable death in section 4 includes deaths that appear *"to have been unexpected, unnatural or violent or to have resulted, directly or indirectly, from accident or injury"* and the *death of a person who immediately before death was a patient within the meaning of the Mental Health Act 1986"*.

[23] Section 67(1) of the *Coroners Act 2008*. All references which follow are to the provisions of this Act, unless otherwise stipulated.

[24] This is the effect of the authorities – see for example *Harmsworth v The State Coroner* [1989] VR 989; *Clancy* v *West* (Unreported 17/08/1994, Supreme Court of Victoria, Harper J.)

[25] The "prevention" role is now explicitly articulated in the Preamble and purposes of the Act of the *Coroners Act 1985* where this role was generally accepted as "implicit".

[26] See sections 72(1), 67(3) and 72(2) of the Act regarding reports, comments and recommendations respectively.

[27] See also sections 73(1) and 72(5) of the Act which requires publication of coronial findings, comments and recommendations and responses respectively; section 72(3) and (4) which oblige the recipient of a coronial recommendation to respond within three months, specifying a statement of action which has or will be taken in relation to the recommendation.

FINDINGS AS TO UNCONTENTIOUS MATTERS

16. In relation to Mr Accardo's death, most of the matters required to be ascertained, if possible, were uncontentious from the outset, others were clearly uncontentious by the conclusion of the inquest. Mr Accardo's identity, the date, place and medical cause of death were never at issue. I find, as a matter of formality, that Salvatore Accardo born on 8 May 1960, aged 47, late of 15 Sheridan Way, Roxburgh Park, Victoria 3064, died at his home in the early hours of 3 March 2008.

THE MEDICAL CAUSE OF DEATH

17. Neither was the medical cause of death contentious. Senior Forensic Pathologist Dr Michael Burke from the Victorian Institute of Forensic Medicine (VIFM), performed a full post-mortem examination (autopsy), reviewed the medical deposition and medical records, the circumstances as reported by the police to the coroner and post-mortem CT scanning of the whole body. Dr Burke advised that he found an enlarged heart with no evidence of recent or remote infarct; the pericardial sac intact but distended by blood and blood clot; a dissecting thoracic aortic aneurysm extending from the ascending aorta, involving the aortic arch and the entire descending thoracic aorta, with rupture into the pericardial sac, and dissection but no thrombosis of the carotid arteries.

18. Toxicological analysis of post-mortem blood, also undertaken at VIFM, revealed no alcohol or other common drugs or poisons, apart from Ibuprofen, a non-steroidal anti-inflammatory drug available in over the counter preparations, at a level of ~2mg/L and Propofol, a short acting anaesthetic, likely administered by attending ambulance paramedics. There is no suggestion that either drug caused or contributed to death.

19. Dr Burke concluded that Mr Accardo's death resulted from pericardial tamponade,[28] secondary to ruptured dissecting thoracic aortic aneurysm due to Marfan's syndrome and commented as follows – *"Post-mortem examination showed pericardial tamponade with blood distending the pericardial sac. The tamponade has occurred as a consequence of rupture of a dissecting thoracic aortic aneurysm. The pathological process is well described*

[28] "Pericardial tamponade" is defined in Dorland's, op cit, at page 1893 as acute compression of the heart caused by increased intra-pericardial pressure due to the collection of blood or fluid in the pericardium from rupture of the heart, penetrating trauma, or progressive effusion.

*in individuals with Marfan's syndrome who have a genetic abnormality in connective tissue...There is no evidence to suggest that death was due to anything other than natural causes."*[29]

20. I find that the medical cause of Mr Accardo's death was pericardial tamponade secondary to ruptured dissecting thoracic aortic aneurysm due to Marfan's syndrome.

## FOCUS OF THE CORONIAL INVESTIGATION/INQUEST

21. The focus of the coronial investigation of Mr Accardo's death involved the circumstances in which he died, namely the adequacy of the clinical management and care in the Austin Hospital Emergency Department on 22 February 2008, the related issue of the flow of clinical information within the Emergency Department during Mr Accardo's episode of care, and to a lesser extent, the adequacy of the clinical management and care provided by Drs Baig and Lucente on 25 and 26 February 2008, and 27 February 2008 respectively.

22. It should be noted at this juncture, that Dr Burke's findings at autopsy were of an extensive dissection extending from the ascending aorta, involving the aortic arch and the entire descending thoracic aorta. As I understood the evidence and submissions of the parties at inquest, and certainly with the benefit of hindsight, there is no suggestion that the symptoms and signs of Mr Accardo's illness represented anything other than the waxing and waning of an uncharacteristically slow, as opposed to acute and catastrophic, dissection.[30] It follows that all three treating clinicians were actually wrong in their diagnoses. However, it does not follow, that the clinical management and care provided by them should be the subject of an adverse finding or comment, as will be discussed below.[31]

## AUSTIN HOSPITAL EMERGENCY DEPARTMENT – 22 FEBRUARY 2008

23. Debra Norbury was one of the MICA Paramedics who responded to the request from the attending ambulance crew for MICA back-up/assistance. Her statement and evidence at inquest was a compilation of what she was told by her colleagues or gleaned, information that

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[29] Dr Burke's formal qualifications and experience are detailed in his seven page autopsy report which is part of Exhibit "O", the balance of the brief.

[30] Transcript pages 46,54-56, 73 where Dr Kelly describes the "classic" symptoms of aortic dissection and the significance of Mr Accardo's changing symptoms over time. This is conceded by Dr Rugless – transcript page 164.

[31] See paragraph 41 below.

Mr Accardo had Marfan's syndrome which she conceded she was probably told in a telephone conversation with Mrs Accardo, and her own observations.[32] Ms Norbury was aware that Marfan's syndrome is a connective tissue disorder, and that people who suffer from it have a predisposition to dissection.[33] She recalled mentioning Marfan's syndrome to the triage nurse, specifically because Mr Accardo did not look like he had Marfan's syndrome and she said so at the time.[34]

24. Apart from a verbal handover to the triage nurse in the ED, Ms Norbury compiled a "Patient Care Report" while she was still in the ED, and a printed "hospital" copy of that report time stamped 1649 hours which is within the medical records.[35] The report includes the following information which, if considered, raised the possibility of an aortic dissection and/or belied a diagnosis of simple gastroenteritis – under final assessment *"acute myocardial infarction? acute coronary syndrome? thoracic aneurysm?"; under patient complaint "pain >> squeezing chest pain"; under past history "heart valve problem diagnosed approx 10 yr ago and ? hypertension, Marfan's syndrome? Meds Tenormin"; under case nature "cardiovascular problem"; case description "Pt at work today when had sudden onset of right leg weakness and became extremely sweaty. Sat down and MAS called. Greenvale crew arrived found Pt to be diaphoretic, had squeezing central chest pain HR 50 and unrecordable BP (later found BP only reading left arm) autoinfused Pt, gave aspirin and gained IV access 18g right dorsum"; under secondary survey "pain>>central chest squeezing, rates as moderate; sweating:>>no radial pulse right arm; denied nausea; short of breath"*[36]

25. The triage nurse was not required to provide a statement or attend the inquest. Based on the verbal handover from the MICA crew, she assigned Mr Accardo as triage Category 2 and there is no suggestion in the evidence before me that this was not the appropriate category.[37] The triage form documents a series of vital signs taken at triage and the following under

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[32] Statement of Debra Norbury, Exhibit "E" and transcript pages 96 and following generally.

[33] Transcript page 97.

[34] Transcript pages 101-102. Mr Accardo was 179 tall and weighed 85 kg (see page 1 of the autopsy report in Exhibit "O") whereas people with Marfan's syndrome usually have a lanky appearance with long limbs and extremities. See footnote 2 above.

[35] A 5 page VACIS-electronic Patient Care Report – see the medical records in Exhibit "O" balance of the brief.

[36] The report also documents that Aspirin 300mg was given orally by the Greenvale crew before handover to the MICA crew who administered Morphine 3mg IV with effect @ 1548; GTN patch @ 1555: Morphine 3mg IV with effect @ 1557; GTN sublingual with no effect noted @ 1600; Morphine 4mg IV with effect @ 1605 before arrival at the ED at 1607.

[37] Transcript pages 148.

"triage assessment" – *Right leg weakness, diaphoretic, chest pain, no radial pulse in right arm, aspirin morphine 10mg, GTN patch (presumable by way of summary of pre-hospital treatment).*[38]

26. The bottom half of the triage form contains a "cubicle assessment" made by RN Di Santo shortly before her first documented set of observations at 1630. RN Di Santo also received a verbal handover from the MICA Paramedics and the cubicle assessment is an amalgam of this and her own assessment of Mr Accardo. RN Di Santo's cubicle assessment includes the following – *under history of presenting complaint "Patient was at work. Complained of right sided leg weakness. Diaphoretic +++ and complained of chest pain. Nil radial pulse to right arm but good capillary refill and colour..."*[39]

27. The evidence at inquest supports a finding that when Dr Mark Rugless first assessed Mr Accardo at 1641 hours, neither RN Di Santo, nor Mrs Accardo were present.[40] According to his handwritten entry in the medical record, which he interpreted at inquest, he was aware of the diagnosis of Marfan's syndrome and that Mr Accardo took Atenolol, which he considered a fairly standard medication for patients with the condition.[41]

28. The history of presenting complaint which Dr Rugless obtained directly from Mr Accardo, and on which the diagnosis of a gastrointestinal illness was based, was of *"Cramping abdominal pains, last four hours, nausea ++, feels bloated, vomited twice* in the ED, diarrhoea ++, no chest or back pain, no shortness of breath, no fevers or sweats."[42] Despite apparently not eliciting a history which raised the possibility of a dissection, or the need to exclude a dissection, and being unaware of Mr Accardo's recent complaints of chest pain, Dr Rugless specifically asked about chest or back pain by way of general screening questions, and Mr Accardo denied having these symptoms.[43]

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[38] For convenience, I have interpreted the abbreviations used in the actual document.

[39] Note that the "off-stretcher" according to the Ambulance "Patient Care Record" was 1623 hours, that is the time the patient was transferred from the ambulance stretcher to the bed in the assigned cubicle. RN Di Santo agreed in evidence that the cubicle assessment was made by her at about the time of the verbal handover. Exhibit "M" and transcript page 243 and following, esp 246,259.

[40] Transcript pages 108, 118, 252-253.

[41] Transcript pages 123-124.

[42] Transcript pages 118-119.

[43] Transcript page 127

29. At inquest, Dr Rugless was questioned about his reliance on the history he obtained from Mr Accardo, rather than investigating other sources of information, such as ambulance, triage and even nursing notes, or collateral history from family members. He maintained that it was a general practice, consistent with his formal training and experience, where a patient is able to give a clear and coherent history, to rely on that as his primary source of information, and to seek other information or collateral history, only if the patient is confused or disorientated, or unable to give a history for some other reason.[44] It appeared that his stance in so doing relied in part on the practical realities of practice within a busy ED setting, in which the time to corroborate a history from an able patient/historian was a luxury. In terms of weight which might be attached to other sources of information, he considered the cubicle history and assessment history more definitive than that obtained by ambulance officers, which was generally obtained in more chaotic circumstances, and saw triage as being fundamentally about prioritisation of patients, and not diagnosis.[45]

30. Although initially unclear, the weight of the evidence before me supports a finding that the Triage Form/Cubicle Assessment sheet and the sheet on which Mr Accardo's vital signs and nursing notes were made by RN Di Santo were stapled together during his episode of care in the ED.[46] Dr Rugless testified that while he would refer to the patient's vital observations as recorded by nursing staff, he would not generally pay any attention to the nursing notes which are made in the right hand margin of the same sheet of paper.[47] The combined effect of these two pieces of evidence is that, at one or other review of Mr Accardo, Dr Rugless had in his hand all the information which would have led him to investigate for or exclude the possibility of an aortic dissection had he chosen to read it.[48]

31. Emergency Physician Dr Anne-Maree Kelly was nominated by the Australasian College for Emergency Medicine (ACEM)[49] to provide the court with an independent assessment of the

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[44] Transcript page 120, 126, 128, 130, 139, 150, 153.

[45] Transcript pages 130 and following, 152.

[46] Transcript pages 191-192, 259, 263, 271-2.

[47] He would also glean a patient's vital signs from the cardiac monitor or other devices in use when he was reviewing the patient. Transcript page 140, 146.

[48] Transcript page 157 and following. See also statements of Dr Kelly, Exhibits "C" and "D" and transcript pages 25

[49] Australasian College for Emergency Medicine is an incorporated educational institution whose prime objective is the training and education of specialist emergency physicians.

clinical management and care provided to Mr Accardo.[50] Dr Kelly provided a generalist's understanding of Marfan's syndrome and described aortic dissection as a well-known but not inevitable complications of the condition.[51] As to the frequency of aortic dissection, Dr Kelly described it as a rare condition with some 20-40 cases occurring annually within the Victorian population of 4 million people, not all of which arose from Marfan's syndrome, and only about half of which would even make it to hospital. Another way of looking at the rarity of the condition, is to consider some 20 presentations of aortic dissection annually, in the context of some 1.5 million presentations to hospital EDs annually.[52]

32. Dr Kelly identified those symptoms and signs in Mr Accardo's presentation which were documented in the medical records and which pointed to the possibility of an aortic dissection including the combination of truncal pain and weakness in a limb, classically chest pain and a neurological feature, either chest or back pain, very localised back pain described as ripping, numbness or tingling in the limbs, heart rate changes both up and down. Dr Kelly was clearly of the opinion that if the various symptoms and signs documented by the ambulance officer, the triage nurse and the cubicle nurse, had been brought to Dr Rugless' attention, he would have investigated Mr Accardo for an aortic dissection and/or made the diagnosis.[53]

33. She also identified the problematic flow of information within EDs as a systems issue fundamentally, and not an issue of the clinician's competence - a systems issue which spoke to the disparate way information was recorded within EDs, and to a lack of integration so that ambulance notes, and even triage and cubicle assessments, may not be available to a clinician during the whole of a patient's episode of care.[54] Unfortunately, Dr Kelly gave evidence at the inquest before those witnesses who clarified the availability of the ambulance Patient Care Record from 1649 hours and the combined triage/cubicle assessment and vital signs/nursing notes were available shortly before 1630hours, and before Dr Rugless clarified that he would

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[50] Dr Kelly provided two reports – one dated 16 April 2011 primarily concerned with the ED presentation and the other dated 4 January 2012 concerned with the GP consultations. They were Exhibits "C" and "D" respectively.

[51] Transcript pages 44.

[52] Transcript pages 45and following.

[53] Transcript at pages 58, 64-65, 70.

[54] Transcript page 47 and following.

not even look for other sources of information unless he perceived a problem with the history the patient had given him.[55]

34. Nevertheless, Dr Kelly condoned this approach, testified that Dr Rugless' clinical assessment and treatment of Mr Accardo was appropriate *"based on the clinical information elicited from Mr Accardo"*, [56] stressed that clinicians should always take as detailed and complete a history as possible,[57] and reflected on the realities of ED practice in the following terms –

> *"That said though, in optimal circumstances, safety is highest if we use information from every source that we can possibly get it. Unfortunately, in our hospital systems, the sources of information are not integrated in a way that makes that at all easy. So the ambulance staff diligently fill in their paperwork but its timing of arrival and where it's put, is not always congruent with when the doctor is seeing the patient or where the doctor's stuff is kept and similarly, the nursing notes may not be complete – the triage note may not have been completed before either and is not necessarily kept in the same place...Emergency Departments are very busy places. So you don't actually have the luxury of chasing everything for everybody all the time ... So in most people's practice, and certainly in my practice, if we can get a really good story from the patient themselves, they are the best source of information ... Corroborating evidence from family members and people who are present is also useful. If for any reason we – the story doesn't add up or they're unable to give a clear story, then we would go chasing more information, which would include...chasing the ambulance form if it's not immediately available...it actually has to be on a selective basis, because we just don't have the time to do it."*[58]

35. Dr Kelly maintained that emergency medicine is best practiced in a "team" environment and placed some responsibility on any nurse who becomes aware of a discrepancy between their history and/or assessment of the patient and the doctor's history, diagnosis and/or treatment to draw the discrepancy to the doctor's attention. This presupposes that the nurse appreciates

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[55] Paragraphs 28 and 29 above.

[56] Exhibit "C" and transcript pages 48, 57-58.

[57] Transcript pages 52-53, 57-58, 64

[58] Transcript page 49. See also transcript page 60.

that there is a discrepancy, and that the culture of the particular ED supports him/her to do so or, alternatively, provides escalation pathways through senior nurse clinicians or otherwise.[59]

36. As regards the "culture" of the ED, Dr Fergus Kerr, Director of Emergency Medicine at Austin Health, testified that they aim for a flat non-hierarchical structure and encourage nurses to raise issues of concern with doctors, as well as providing escalation pathways. He agreed with Dr Kelly about placing *some* responsibility on the cubicle nurse to alert the clinician to any perceived discrepancy, but with reservations. He thought it all turned on timing, and that if the nurse was not present when the doctor was taking a history or before he/she had formulated a diagnosis, it would be fairly challenging for a junior nurse to appear to gainsay the doctor.[60]

37. In her evidence at inquest, RN Di Santo echoed Dr Kerr's reservations. In the first place, she was unaware of Marfan's syndrome and its clinical significance. Moreover, she testified that she would not have perceived any inconsistent history or discrepancy. RN Di Santo assumed that Dr Rugless would obtain a history from the patient himself, and *"get the whole story whether by looking at the notes or asking me"*. She felt it could be daunting to question a doctor but would do so if she felt concerned for a patient.[61] RN Di Santo assumed that the doctor would always read the triage notes. In her own history taking, she testified that she would go to other sources of information if her patient was a vague historian. Although she had no specific recollection of Mr Accardo's presentation on 22 February 2008 and was giving evidence relying largely on the nursing notes she made in the medical record, RN Di Santo noted that she had documented that Mr Accardo was alert and orientated, in her assessment.[62]

38. Ms Janice Brown was the Nurse Unit Manager of the Austin ED, and a nurse with 30 years experience, 27 years of which were within an ED setting. NUM Brown agreed with Dr Kerr's gloss on Dr Kelly's opinion that emergency medicine is best practiced in a team where team members should feel empowered to speak up where they perceive a discrepancy or have concerns about clinical management. That is, she felt that it would depend very much on

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[59] Exhibits "C' and "D" and transcript pages 52, 64 and following.

[60] Transcript page 179 – I think this is the gist of his evidence, although paraphrased. See also transcript page 181-182.

[61] Transcript pages 253-257, 262-263.

[62] Transcript page 258.

whether the nurse had the requisite clinical experience to perceive the discrepancy in the first place. NUM Brown felt that RN Di Santo would have been operating at the level of an inexperienced albeit fully qualified emergency nurse at the time.[63] Based on her lengthy experience, she testified that emergency physicians do not always consult ambulance or triage notes, and that it was common practice for them to refer only to their documented vital signs, but not their nursing notes and broader observations.[64]

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39. On one reading of Dr Kelly's second report, a criticism of the clinical management and care provided by Drs Baig and Lucente was implied.[65] At inquest, she clarified that in her opinion Mr Accardo's presentations to the GPs were missed opportunities, in the theoretical sense, for a correct diagnosis to be made in time to change the outcome for Mr Accardo. She was not critical of the doctors for their management plans, based as they were, on the histories they elicited from Mr Accardo. Indeed, Dr Kelly testified that she would have been astounded if either doctor had made the diagnosis of aortic dissection on the information available to them at the time.[66] She did, however, maintain that there were some "soft signs" which pointed to the possibility of aortic dissection and/or of a more serious underlying cause for Mr Accardo's symptoms, as well as the fact of multiple presentations within a few days which could have raised concerns, in and of itself.[67]

40. There were a number of discrepancies between Mrs Accardo's recollection of her husband's attendance on the two doctors, which I do not propose to resolve, in the circumstances, save to say that in respect of the attendance on 26 February 2008, Dr Baig's statement does not sit comfortably with the clinical notes he made at the time. Even if Mrs Accardo's recollection of what transpired on these occasions is accurate, there is no evidence that either he or Dr Lucente were ever appraised of a history that encompassed the early, telling symptoms and signs Mr Accardo had on 22 February 2008, which might have pointed the doctors towards the correct diagnosis.

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[63] Transcript page 269.

[64] Transcript pages 270-271.

[65] Exhibit "D".

[66] Transcript pages 73, 78, 83, 86.

[67] Transcript pages 76, 78, 80, 81, 85, 91, 92, 93.

CONCLUSION

41. The standard of proof for coronial findings of fact is the civil standard of proof on the balance of probabilities with the *Briginshaw* gloss or explication.[68] The effect of the authorities is that Coroners should not make adverse findings against or comments about individuals or institutions involved in the clinical management or care of the deceased, unless the evidence provides a comfortable level of satisfaction that their negligence and/or departure from the generally accepted standards of their profession caused or contributed to the death.[69]

42. Mr Accardo's death was preventable, in the sense that if diagnosed in the ED on 22 February 2008, and probably at any subsequent consultation with the GPs, he had a chance of successful treatment which would probably have involved surgical intervention, and would probably have survived, given his overall relative good health.[70] The best opportunity for diagnosis was in the ED on 22 February 2008, and the failure to diagnose and treat aortic dissection during that episode of care, caused or contributed to his death some ten days later.[71]

43. However, the weight of the evidence before me does not support an adverse finding against either Dr Rugless or Austin Health, as his approach does not appear to have departed from the generally accepted standards of his profession, and the flow of information of clinical significance in the ED, although problematic, does not appear to be any more so than in other Emergency Departments in tertiary hospitals in the State. This is not an edifying conclusion.

44. As regards RN Di Santo, the evidence does not support an adverse finding or comment against her. I accept she was a recently qualified and very inexperienced nurse, and that she did not perceive any discrepancy, let alone a material discrepancy, between the history and assessment she made of Mr Accardo as cubicle nurse, and Dr Rugless' treatment plan for a presumed gastrointestinal illness.

45. Similarly, there is no basis in the evidence before me to make any adverse finding or comment against either Dr Baig or Dr Lucente.

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[68] *Briginshaw v Briginshaw (1938) 60 C.L.R. 336 esp at 362-363 - "The seriousness of an allegation made, the inherent unlikelihood of an occurrence of a given description, or the gravity of the consequences flowing from a particular finding, are considerations which must affect the answer to the question whether the issues had been proved to the reasonable satisfaction of the tribunal. In such matters "reasonable satisfaction" should not be produced by inexact proofs, indefinite testimony, or indirect inferences..."*

[69] *Anderson v Blashki [1993] 2 VR 89 at 95; Secretary to the Department of Health & Community Service v Gurvich [1995] 2 VR 69 at 73-74; Re State Coroner; ex parte Minister for Health (2009) 261 ALR 152 at [21]*

[70] Transcript pages 73, 78.

[71] Transcript page 73.

46. That said, it is a sorry state of affairs, when clinically relevant information which finds its way into the medical records, is not factored into clinical decision-making at its most crucial. At the risk of appearing glib, it is of little comfort to the family that the coronial investigation brings to light matters which were known at the time, were properly documented and clinically significant, but were either not accessible, or not accessed by the treating clinician.

47. The evidence before me supports a finding that correct diagnosis of Mr Accardo's illness was confounded by his atypical presentation of a rare condition, the varying symptoms and signs over the course of his illness, and the absence in any version of the history elicited from him, of his diagnosis over ten years earlier of an "enlarged aorta", which might of itself have prompted further investigation.

## COMMENTS

Pursuant to section 67(3) of the **Coroners Act 2008**, I make the following comment(s) connected with the death:

1. I was advised during the course of this investigation of a number of initiatives at Austin Health which were relevant to the circumstances of Mr Accardo's death, which should improve patient safety in the future and which should accordingly be acknowledged –

    - The promulgation in February 2009 of an AAA/Aortic Dissection[72] Guideline for the Emergency Department under the hand of Dr Kerr as Director of Emergency Medicine, which includes, inter alia, a requirement that patients suspected of having either condition should be triaged Category 2 and the triage nurse must inform the ED consultant/senior registrar and the vascular registrar/fellow.

    - A document entitled "Responsibilities at the Austin Hospital" setting out paramedic responsibilities and corresponding Austin Hospital staff responsibilities which includes articulates the requirement that paramedics compete the electronic Patient Care Record in a timely manner and place the printed report in the patients record slot/adjacent to the cubicle.

[72] AAA refers to abdominal aortic aneurysm – a condition which poses similar clinical challenges as thoracic aortic dissection or aneurysm.

- Ongoing review of triage within the ED, including the involvement of senior doctors at the triage stage, in part to ensure that important clinical information conveyed in the verbal handover, is not lost.

2. On my assessment of the evidence before me, Dr Rugless' failure to seek information from other sources or collateral history, occurred at the threshold. It was not an issue of the inaccessibility of the information, but of his failure to perceive the need to look. To the extent that the normal pressures of ED practice militate against a clinician actively incorporating clinical information from all reasonably accessible sources, patients like Mr Accardo, who may not be the best historians in their own cause, are at risk. Dr Kelly spoke of clinicians making diagnoses based on a snapshot of the movie which is the course of an illness.[73] To pursue this metaphor, several snapshots, even if taken by health professionals from different disciplines, are likely to enhance the clinician's view of the patient.

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

The family of Mr Accardo
Austin Health
Dr Mark Rugless
Dr Wirasat Baig
Dr Filomena Lucente
Dr Ann-Marie Kelly
Australasian College for Emergency Medicine

Signature:

PARESA ANTONIADIS SPANOS
CORONER
Date: 31 January 2013

Coroners Court of Victoria

[73] Transcript page 85.