IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

Court Reference: 2012 1491

FINDING INTO DEATH WITH INQUEST

Form 37 Rule 60(1)

*Section 67 of the **Coroners Act 2008***

Inquest into the Death of:

Deceased:	GRAEME JENNINGS
Findings of:	HIS HONOUR, PHILLIP BYRNE
Delivered On:	Friday, 24 June 2016
Delivered At:	Coroners Court of Victoria 65 Kavanagh St, Southbank
Hearing Dates:	19 – 22 April 2016
Representation:	Ms F. Ellis, for Goulburn Valley Hospital Mr P. Halley, for Mr Kamenjarin Mr R. Harper for Mrs Jennings
Police Coronial Support Unit, Assisting the Coroner:	LSC King Taylor

I, PHILLIP BYRNE, Coroner, having investigated the death of GRAEME JOHN JENNINGS

AND having held an inquest in relation to this death on 19 – 22 April 2016

at MELBOURNE

find that the identity of the deceased was GRAEME JOHN JENNINGS

born on 21 January 1947

and the death occurred on 27 April 2012

at Goulburn Valley Hospital, Shepparton, Victoria

from:

1 (a) STAPHYLOCOCCAL SEPSIS

in the following circumstances:

BROAD BRUSH SEQUENCE OF EVENTS

- On 16 April 2012 Mr Jennings presented to his general practitioner, Dr Kuen Chan, with right elbow pain and swelling. Mr Jennings, who had a past history of chronic gout, was diagnosed as olecranon bursitis for which he was prescribed Indocid and was referred to Dr Todhunter, a pain specialist.
- On 17 April 2012 Mr Jennings had a quad bike accident at his farm.
- Shortly after 8pm, Mr Jennings attended the Emergency Department at Goulburn Valley Hospital (GVH). X-rays taken indicated no skeletal fractures, however blood tests demonstrated an elevated white cell count (WCC) and a very significant elevated C-reactive protein (CRP).
- In the early hours of 18 April 2012, Mr Jennings was admitted to the surgical ward under the bed card of Mr Michael Kamenjarin, consultant surgeon, who saw Mr Jennings shortly after 8am on his morning ward round.
- Mr Jennings remained in the surgical ward from 18 to 20 April 2012 when he was discharged. During the admission Mr Jennings had a number of x-rays and CT scans and was reviewed at various times by the Orthopaedic Registrar, the Medical Registrar, the Surgical Registrar and a physiotherapist. A referral was made to the Acute Pain Service. On the morning of 20 April 2012, prior to discharge, Mr Jennings was again reviewed by the consultant surgeon, Mr Michael Kamenjarin. A follow up appointment with Dr Chan was scheduled for 27 April 2012.
- On 23 April 2012 (prior to the scheduled GP review) Mr Jennings again presented to Dr Chan who at that time had the GVH Discharge Summary which gave a discharge diagnosis of "soft tissue injury".
- Dr Chan prescribed further pain medication including Endone and scheduled a review for 26 April.
- On 24 April 2012 Mr Jennings was re-admitted to GVH Intensive Care Unit in a serious condition with severe septicaemia. He underwent intensive treatment including surgery. On 25 April 2012, in spite of active treatment, Mr Jennings condition continued to deteriorate and he died in the small hours of 26 April 2012.

COURSE OF INVESTIGATION

1. This matter has had quite a checkered history. For a variety of reasons, most of which are unclear to me, progress has been somewhat disjointed. In the event by way of arrangement with the then State Coroner, the matter was transferred from Shepparton to Melbourne and assigned to me; I took over carriage of the matter in late January last year, 2015.
2. Having reviewed the material on file it became clear that there were a number of concerns raised by the family in relation to the overall medical management of Mr Jennings at GVH. I formed the view that the matter would likely need to go to formal inquest.
3. In late May I asked my registrar to list the matter for a Mention/ Directions Hearing on 25 June. I proposed at the hearing to seek to determine the scope / parameters of an inquest hearing.
4. Having carefully examined the material at hand, particularly the material under the hand of the Chief Medical Officer at GVH, Dr Vasudha Iyengar, I formed the tentative view that the several internal investigations undertaken at GVH had identified deficiencies in the medical management of Mr Jennings, at least in relation to the first admission. I propose to return later in this finding to the internal reviews and the significant enhancements/ refinements to GVH's practices and protocols that flowed from those reviews.
5. In an endeavour to advance the matter I indicated my tentative views concerning the identified deficiencies and enquired as to whether I could anticipate any "concessions" (the terminology I used). Solicitors for both GVH and consultant physician Mr Michael Kamenjarin, respectively Ms Bianca Parussolo and Mr Chris Spain, indicated they had no instructors to make concessions on behalf of their respective clients.
6. I requested Ms Parussolo and Mr Spain to seek an instruction, one way or another, as to whether any "concessions" were likely. At that hearing I took the opportunity to settle a tentative list of witnesses should the matter proceed to inquest.
7. At the Mention/ Directions hearing I was advised that discussions may take place between solicitors for the hospital and Mr Kamenjarin. Those discussions did not, at least from my perspective; bear fruit and the matter was subsequently listed for a four day inquest in April 2016.
8. I noted that Dr Kuen Chan, Mr Jennings's general practitioner, was not present, or represented at the Mention/ Directions Hearing although the family had expressed some concerns about his medical management of Mr Jennings, particularly in relation to the consultation of 23 April 2012, between the first and second admissions to Goulburn Valley Hospital. Represented or not, Dr Chan was included in the list of witnesses settled at the Mention/ Directions Hearing.
9. At the hearing of 25 June 2015 I stressed that the primary foci of any future hearing would be the medical management of Mr Jennings on the first admission of Goulburn Valley Hospital and the subsequent consultation with Dr Chan on 23 April 2012.
10. Although there was material on the file when it was received from the Shepparton Court relating to the second admission to Goulburn Valley Hospital on 24 April, I indicated that that admission was not the focus of my inquiry and I would not be pursuing detail of the treatment provided; including surgery, during that admission.

RELEVANT LAW

11. As is my practice in matters such as this I refer to aspects of the law which I believe are relevant to the findings I am required to make.

12. Section 67 of the Coroners Act 2008 provides what I will refer to as the core findings a coroner must if possible, make; they are:

    - The identity of the deceased.
    - The cause of death.
    - The circumstances in which death occurred.

    In this case the first two matters are uncontentious. As is often the case, it is the requirement to seek to establish the circumstances in which Mr Jennings's death occurred that is contentious.

13. The 1985 Coroners Act brought significant changes to the fundamental role of the coroner, under the 1958 Act, for most intents and purposes, proceedings were largely quasi-criminal; with a power resting with the coroner to commit a person for trial if his/ her input into the death could reasonably viewed as constituting a criminal offence. I clearly recall having some difficulty coming to terms with the "new" Act. In my view, the landmark decision of the Victorian Court of Appeal in Keown v Kahn[1] (a police contact death) provided much needed guidance to coroners. In the leading judgement, His Honour Mr Justice Callaway made a number of important statements which I include in this finding. I include this material to assist the lay interested parties, particularly families of deceased persons, to understand the bases upon which I proceed. Quite often, even if an adverse finding is made against a person or entity they see as responsible for the death of their loved one, families can leave with an unfulfilled expectation, anticipating strident criticism, even denouncement of the party they see as guilty. That is not the role of the coroner.

14. In Keown v Kahn Justice Callaway, adopting a statement contained in the Broderick Committee Report[2], said:

    "In future the function of an inquest should be simply to seek out and record as many of the facts concerning the death as public interest required, without deducing from those facts any determination or blame"

    Again quoting the Broderick Committee (UK) Report, His Honour noted:

    "In many cases, perhaps the majority, the facts themselves will demonstrate quite clearly whether anyone bears any responsibility for the death; there is a difference between a form of proceeding which affords to others the opportunity to judge an issue and one which appears to judge the issue itself."

    So while not laying or appropriating blame a Coroner should endeavour to establish the CAUSE, or CAUSES, of a death; the distinction is fine but real. As Callaway J.A. described it in Keown v Khan:

    "In determining whether an act or omission is a cause or merely one of the background circumstances, that is to say a non-causal condition, it will sometimes be necessary to consider whether the act departed from a norm or standard or the omission was in breach of a recognised duty, but that is the only sense in which para. (e) mandates an inquiry into

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[1] (1999) VR 69

[2] Report of the Committee on Death Certification and Coroners (1971)(UK) (The "Broderick Report") GMND 4810).

culpability. Adopting the principal recommendation of the Norris Report, Parliament expressly prohibited any statement that a person is or may be guilty of an offence. The reasons for that prohibition apply; with even greater force, to a finding of moral responsibility or some other form of blame". (my emphasis)

15. Seeking to articulate the dichotomy between laying or apportioning blame, fault, culpability on one hand, and finding cause or contribution on the other is difficult. In Coroners Court v Susan Newton and Fairfax New Zealand[3], the following statement appears:

"It is no part of the coroner's function to apportion blame for the death. The coroner must however be able to go beyond the mere cause of death if the coroners is to serve a useful social function, and must establish so far as is possible, the circumstances of the death. The implicit attribution of blame may be unavoidable in order for the coroner to ascertain or explain how the death occurred in the wider events that were the real cause."

Lord Lane CJ held in R v South London Coroner; exparte Thompson[4]:

"It should not be forgotten that an inquest is a fact finding exercise and not a method of apportioning blame".

Hardie Boys J in Louw v MacLean[5] stated:

"in order to ascertain or explain how death occurred, in the wider sense of the events that were the real cause, the implicit attribution of blame is unavoidable". (again my emphasis)

In my view any adverse finding, if one is to be made, should be in subtle terms.

CAUSATION

16. Causation is a fundamental issue. In E and MH March v Stramare[6] Chief Justice Mason observed

"What was the cause of a particular occurrence is a question of fact which must be determined by applying common sense to the facts of each particular case.[7]"

In Chief Commissioner of Police v Hallenstein[8] Justice Hedigan stated that the fundamentals of causation in the context of negligence are applicable to consideration of causation in the context of coronial matters. In my view, for an act or omission to be a causal factor in a death the connection must be logical, proximate and understandable, not strained, artificial or illogical.

STANDARD OF PROOF

[3] (2006) NZAR 312 paragraph 28.

[4] (1982) 126 SJ 625.

[5] (1988) High Court of NZ (unreported 12 January 1988).

[6] (1991) 171 CLR 506.

[7] (1991 171 CLR 506 para 17.

[8] (1996) 2VRI.

17. The classic judicial statement concerning the standard of proof in civil cases (including coronial matters) is Briganshaw v Briganshaw[9] where Dixon J said:

> *"... reasonable satisfaction is not a state of mind that is attained or established independently of the nature and consequence of the fact or facts to be proved. 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 issue has 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[10]".*

The applicable standard of proof in coronial matters where the performance of someone acting in a professional capacity is under scrutiny has been the subject of judicial consideration. To make an adverse finding against an entity in that capacity a "comfortable degree of satisfaction" must be reached[11].

THE EVIDENCE:

DR KUEN CHAN

18. Dr Chan had been Mr Jennings' general practitioner for about a decade. I propose to focus upon only two of the consultations Mr Jennings had with Dr Chan in April 2012, the first on 16 April 2012, the second on 23 April 2012 following Mr Jennings's discharge from GVH on 20 April 2012.

19. In his first statement dated 1 September 2012 (exhibit "D"), Dr Chan noted Mr Jennings had a past medical history of chronic pain syndrome from musculoskeletal problems (crush vertebral fracture, lumber laminectomy and bi-lateral knee replacements) "complicated by gout".

20. In that first statement Dr Chan indicated the reason for the consultation of 16 April 2012 was an acute attack of gout. Dr Chan diagnosed non-septic olecranon bursitis. For which he prescribed the strong anti-inflammatory Indocid and referred Mr Jennings to a pain specialist. I digress to indicate that both of Dr Chan's statements (exhibits "D" and "E") were in the form of letters to AHPRA to whom complaints had been made, presumably by the family.

21. I do not consider there is any reasonable basis to be critical of Dr Chan's medical management of Mr Jennings in relation to the consultation of 16 April 2012.

22. On 23 April 2012, some three days after his discharge from GVH, Mr Jennings re-attended upon Dr Chan. In evidence (given via video link), in answer to a question put by my assistant, Leading Senior Constable King Taylor, Dr Chan conceded that Mr Jennings' clinical condition at his second consultation had changed "very significantly", declining to sit, leaning on a walking frame. In relation to this second presentation, the family have argued that Dr Chan should have immediately arranged for Mr Jennings to be re-admitted to GVH for further investigation.

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[9] (1938) 60 CLR 336.

[10] (1938) 60 CLR 336 @ 362-3.

[11] Anderson v Blashki (1993) 2 VR 89 and Health and Community Services v Gurvich (1995) 2 VR 69.

23. Dr Chan, in his second statement, suggested Mr Jennings attended prior to the planned review date primarily to obtain further Endone, a narcotic analgesic medication. He accepted that he was aware of the quad bike accident and had the pathology results in relation to blood taken in the Emergency Department at GVH on 17 April 2012. Dr Chan, I suspect placing some reliance on the Discharge Summary from GVH which stated the diagnosis upon discharge was "soft tissue" injury, undertook what would have to be viewed as a cursory examination of Mr Jennings. He conceded in oral evidence that he observed bruises to the left lower abdomen, but after some hesitation Dr Chan conceded he did not examine Mr Jennings's groin, nor did he send the blood stained urine sample to pathology as he considered it was blood stained due to blunt trauma sustained in the quad bike accident.

24. In summary, Dr Chan said he considered the raised CRP and neutrophilia was due to "chronic inflammation from the recently treated gout"[12], not an indication of infection. I also note Dr Chan stated that the CRP level of 329 was "slightly elevated" and could be explained by Mr Jennings's chronic gout. Dr Chan denied the CRP was at a level where investigations to exclude blood infection should have been undertaken and added that if he had considered the raised CRP level was indicative of infection, he would have sent Mr Jennings back to hospital. In support of his contention, Dr Chan said in considering the prospect of blood infection, one has to look at the white cell count as well as the CRT and he was aware Mr Jennings had mature neutrophilia so that he stood by his view that the CRP of 329 was due to gout. Interestingly, Dr Chan stated he was not aware of lacerations to the right elbow and right knee

25. Dr Chan said he was not aware of the pathology results of 18 and 19 April 2012 as they, as a matter of practice at GVH are not included in the Discharge Summary, only the pathology from blood taken in the ED. Dr Chan said that had he been aware of those results he would have sent him "straight back"[13] to hospital. Dr Chan made an interesting observation when observing the further pathology of 18 and 19 April 2012, stating that he would:

    "... definitely not even have discharged him in the first place if I was the hospital doctor".

26. It was put to Dr Chan by Mr Harper, counsel for the family that with knowledge of the elevated CRP, coupled with Mr Jennings's presentation, he should have applied a much more "critical eye" and have rung the hospital seeking more detail of what investigations were undertaken. Dr Chan's response was interesting; he said:

    "Well we have to trust somebody and I trusted the hospital".

27. I have to consider Dr Chan's medical management of Mr Jennings without the not inconsiderable benefit of hindsight, but on the material available to him at the time, together with what I will call the clinical picture.

28. Towards the end of Dr Chan's oral evidence, Leading Senior Constable Taylor, assisting, established that Dr Chan had practiced in the rural farming area for over three decades. It was put to Dr Chan that being aware that Mr Jennings had fallen from the quad bike in a paddock which was very likely to have bacteria in the soil and suffered slight laceration to his knee and elbow, did he give consideration to providing prophylactic antibiotic therapy to cover for the prospect of infection. Dr Chan replied that it may have crossed his mind but he did not start Mr Jennings on antibiotics, stating:

    "I didn't because the hospital hasn't started him on that"

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[12] Exhibit "E" (second statement).

[13] Transcript p.44.

I must say that, that in itself is a less than compelling reason.

29. In considering the efficacy of the medical management of Mr Jennings by Dr Chan on the second consultation I have primarily taken into account the following matters:

    - Dr Chan was aware of Mr Jennings's history of gout, having treated him for the complaint over some years.
    - The consultation of 23 April 2012 was not the formal GP review following discharge from hospital.
    - The Discharge Summary provided to Dr Chan by GVHprovide only the pathology results of blood taken in the ED on 17 April 2012.
    - The pathology results in relation to the admission on the 18th and 19th were not provided in the Discharge Summary.
    - The GVHdiagnosis in the Discharge Summary was "soft tissue" injury.
    - Dr Chen was aware that Mr Jennings admission to GVHwas due to the quad bike accident.
    - It is clear Mr Jennings's presentation on 23 April 2012 was significantly different to that of 16 April 2012, in that upon the second attendance Mr Jennings was in very significant pain.

30. I have previously noted that Dr Chan was not legally represented. My registrar advised that at some point in time she spoke with Dr Chan by phone (I do not know who initiated the call) at which he apparently enquired as to whether he should seek legal representation. My registrar, correctly in my view, told Dr Chan it was not for her to advise on such matters, but a matter for him to consider. Dr Chan was aware of the family's concerns as AHPRA were involved. All I say is that from my point of view it is preferable for a professional, whose performance is in issue, to be legally represented; Dr Chan was not.

31. On behalf of the Jennings family, Mr Harper submitted that Dr Chan failed to appreciate the significance of the grossly elevated CRP, demonstrated in the ED blood test on 17 April 2012, which Dr Chan described as "slightly elevated". Mr Harper noted that Dr Chan said in evidence that if he had suspected infection at the second presentation he would have sent Mr Jennings straight back to hospital. Significantly, Mr Harper made it clear that although the family maintained that Dr Chan should have done more, it was not submitted that the claimed failure was a causal factor in Mr Jennings's subsequent death.

32. Before making a formal finding on the issue I wish to make it clear that Dr Chan came over as a generally competent, caring general practitioner who, at all times, had his patients wellbeing at heart. However, I have concluded his management of Mr Jennings upon the presentation of 23 April 2012 to be sub-optimal. The presentation was such that with knowledge of the circumstances of the quad bike accident, with knowledge of the elevated CRP and observing Mr Jennings's parlous condition, he should have contacted the hospital to determine what tests, particularly pathology, had been undertaken during the admission and what results were obtained. Ironically, I believe Dr Chan placed too much significance on Mr Jennings's known history of gout and not enough on his patients deteriorating condition following the quad bike accident. In summary he should have turned his mind to the prospect that the significant deterioration may have been due to a developing serious infection.

PREVENTION

33. Earlier in this finding I made comment about the evolution of the coronial jurisdiction. It can be argued that the most significant development, particularly with the 2008 Act, relates to the concept of prevention and what I call the "public interest imperative". The power to make recommendations is now a major coronial focus; the broad object to be, to suggest alterations, additions, refinements to existing practices, protocols and guidelines designed to reduce the prospect of deaths occurring in similar circumstances.

34. In this particular matter prevention has been a major focus, not only in my investigation, but proactively by GVH.

35. A request was made of GVH to provide details of the steps taken to review the circumstances leading to Mr Jennings's death.

36. A letter dated 20 February 2014, under the hand of the Chief Medical Officer of GVH Dr Vasudha Iyengar was received outlining the extent of internal investigations, the issues identified and the measures taken following the reviews. Rather than me seeking to encapsulate the information conveyed, lest something be lost or misconstrued in the translation, I include several important excerpts from Dr Iyengar's letter, which is in evidence as Exhibit "L"; she wrote:

Reviews

Mr Jennings's death triggered several investigations at hospital level including surgical morbidity and mortality meeting an in-depth case review. It also triggered a significant series of Divisional Clinical Director and Clinical Director meetings focused on developing and improving multidisciplinary pathways for acute clinical care in such cases. Mr Jennings death was also reviewed by the hospital's Clinical Outcome Review Committee (CORC). The purpose of that Committee is (among other things) to:

- *Review and provide advice on reviews of clinical incidents;*
- *Approve recommendations arising out of lessons learned from investigations into adverse events;*
- *Provide changes and improvements on clinical advice on policies and guidelines;*
- *Provide advice on developing and delivering safety and quality education for clinical staff.*
- *Foster and nurture a safe environment for the learnings from adverse event case reviews in multidisciplinary and multi-professional team level.*
- *Foster and set the "team and multi-professional" standard for care in difficult cases.*

Findings

The investigations disclosed the need to:

- *Improve accountability and process around who orders tests, where they are sent and how they are read;*
- *Improve oversight of junior medical staff by consultant medical staff;*
- *Undertake periodic (at each ward round or since last assessment and prior to discharge) structured clinical reviews at registrar level including a thorough review of investigation results and clinical progress;*

- *Clarify and reach a shared understanding on the identity of the designated clinical lead where a patient's condition necessitates a multidisciplinary team approach;*
- *Ensure that important biochemical and clinical markers are consistently escalated to consultant level;*
- *Clarify that the initiator of investigation remains responsible for obtaining the result or handing over responsibility to an appropriate colleague to obtain the result and take action if required, and*
- *Improve lines of communication concerning abnormal pathology and radiology results. These improvements can be both via improved technology e.g. an alert system and a tracking system, but also through better and clearer dialogue between pathologists/ radiologists and clinicians to discuss potential treatment and management options.*

37. An undated supplementary statement was tendered through Dr Iyengar in viva voce evidence in her capacity as Chief Medical Officer (see Exhibit "M"). In that supplementary statement Dr Iyengar described what systems were in place at GVH in 2012 and what systems described as "improvements" were introduced following the internal reviews.

38. Before going into some detail, I acknowledge the various reviews were not only fulsome, but robust, resulting in significant improvements. Human nature being what it is, one cannot give an absolute watertight assurance that oversights will not re-occur, but the systems introduced should ensure, as best once can, that deficiencies identified in the medical management of Mr Jennings are not repeated.

39. I propose to let Exhibit "M" speak for itself. However, I refer, in broad terms, to the principal issues and the improvements introduced which are incorporated in Dr Iyengar's supplementary statement under the following headings:

(i) The ISBAR system.
Described as a standardised computer program which includes investigations undertaken, who by and how follow up is to occur. It is further described as part of the everyday handover process which can be accessed in various ways, including at the bedside during rounds. Importantly the program enables doctors to view pathology results and determine whether there is a "trend" that requires attention.

(ii) Ensuring oversight of junior medical staff by consultant medical staff.
Under this heading I include one particularly pertinent paragraph.

"All consultants should be made aware of, and should make themselves aware of, relevant results in relation to a patient who is under their care. It is the intake consultant's final clinical responsibility to ensure that they seek and obtain all relevant clinical information on their cohort of patients from their junior staff."[14]

(iii) Education re ISBAR/ case reviews.
Again, I include what I see as a pertinent paragraph.

"Weekly clinical case review teaching is carried out for the benefit of junior medical staff by the Directors of Medical Education. The person responsible for the carrying

[14] Exhibit "M" para 19.

out the reviews is appointed by current CMO in each division and responsible for ensuring that the requisite standard of professional supervision, mentoring and maintenance of College level teaching and oversight for all junior medical staff in each clinical division."[15]

(iv) Improvements to lines of communication concerning abnormal pathology and radiology results.
This initiative is an "Alerts and Flags" system whereby all significantly abnormal pathology results, as determined by a pathologists, are telephoned through to the relevant registrar on call.

(v) Improvements to lines of communication on discharge with General practitioners
When a patient is discharged to a GP's care, electronic discharge summaries will be generated, presumably with the sort of information included which Dr Chan said he wished he had when he saw Mr Jennings on 23 April 2012.

40. Having considered the improvements introduced, as described by Dr Iyengar, although it may be cold comfort for his family, a strong argument can be made that if they were in place on April 2012 and acted upon in compliance with the "new" system, the outcome would have been different and Mr Jennings's untimely death would likely have been prevented.

41. By way of either comment or recommendation I propose to later in this finding, refer to the trial at GVHof the "Labmet" system developed at the Austin Hospital

MEDICAL MANAGEMENT DURING FIRST ADMISSION – MR ERIC EE

42. I turn to the primary focus of this inquest – the medical management of Mr Jennings at the Goulburn Valley Health from admission through the ED on 17 April 2012 until discharge in the early afternoon of 20 April 2012.

43. Mr Jennings was admitted as a private patient, under the bed card of general surgeon, Mr Michael Kamenjarin after being conveyed to Goulburn Valley Health by family after a quad bike accident at his farm. In the accident, amongst other injuries, Mr Jennings had sustained abrasions to his elbow and knee.

44. The focus of the investigation and inquest has been on four primary issues:

- Were the results of pathology in the ED, and after admission of grossly elevated CRP, and an elevated white cell count, recognised by junior medical staff as possibly indicative of infection?
- Were these results communicated up the hierarchy – intern to registrar, registrar to consultant?
- If not, as would appear to be the case, should the consultant have proactively made it his business to enquire of/ interrogate, junior staff as to whether pathology had been performed and if so, what were the results?
- Was discharge on 20 April 2012 appropriate, or should it have been delayed at least until the prospect of a developing infection had been excluded?

[15] Exhibit "M" para 21.

45. In considering these four primary issues, I had had the benefit of statements provided by experts, Dr Korman engaged by the court, Mr Hollings engaged by the family, Mr Clifforth engaged by Mr Kamenjarin. Furthermore, Dr Korman and Mr Hollings also gave viva voce evidence and were examined at some length by counsel for the interested parties. I also heard evidence from Mr Kamenjarin and Mr Eric Ee, who at the time was in his fourth year as a senior registrar and part of the trainee surgical team at Goulburn Valley Health. I note in the interim, at the end of 2013, Mr Ee became a fellow of the Royal Australian College of Surgeons.

46. The care of Mr Jennings was handed over to Mr Ee by the Emergency Department doctor on the evening of 17 April 2012. Mr Ee took on history and undertook an examination of Mr Jennings. Mr Ee said he understood that bloods were taken in the ED. On the morning of 18 April 2012. Mr Ee, as the outgoing registrar, participated in the bedside registrar ward round. Having finished his shift, Mr Ee said he believed he did not participate in the consultant ward round. Mr Ee conceded to Ms Ellis that he accessed the pathology printouts of 17 and 18 April 2012, after his shift had ended.

> *"... just as a matter of interest... to make sure that there wasn't anything... that was significantly abnormal that needed to be actioned"*[16]

Mr Ee accepted he noticed the CRP and white cell count, but concluded those results were in "keeping with the presentation". Mr Ee stated that he would not have relayed those results to the consultant, but would have ordered repeat blood tests to "follow the trend"[17]

47. Mr Ee again saw Mr Jennings on the evening of 19 April 2012 where he was asked by an intern to see Mr Jennings due to a complaint of left groin pain. Mr Ee ordered a CT scan to seek to determine the cause of the pain. Prior to the scan being performed <Mr Ee accepted that shortly after 10pm on that evening he again accessed the pathology printout which demonstrated a rise in the WCC and the CRP, the latter further elevated to 556. Mr Ee conceded he probably concluded that was likely to be in keeping with the presentation of trauma in the setting of acute and chronic gout and soft tissue injury. Mr Ee maintained that at that time he considered Mr Jennings clinical condition indicated his patient was well.

48. Mr Ee was back on duty again on the morning of 20 April 2012 at which time he had the results of the CT scan. Mr Ee said he was told the scan demonstrated a muscle strain in the left groin and significant bruising of the right flank. It was put to Mr Ee that as the CT scan had not shown an incarcerated hernia as was suspected, and given that he had been told of the muscle strain, what did he consider the elevated CRP and WCC were due to. Mr Ee again maintained that at the time he considered the blood results were explained by the soft tissue injury evident on the CT scan.

49. Mr Ee suggested that the significance of elevated CRP is "quite unreliable"[18] and may or may not be in keeping with the clinical presentation. I asked Mr Ee if he had held the same view if CRP was "grossly" elevated. He replied:

> *"If it's grossly elevated, it's less likely to be unreliable"*

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[16] Transcript p.412.

[17] Transcript p. 414.

[18] Transcript p. 423.

He then conceded to Ms Ellis that he was now aware the CRP was grossly elevated. Mr Ee said that looking back now he would have performed blood cultures at the time Mr Jennings had a "febrile episode" on 19 April 2012.

50. Ms Ellis put what I will call the "64 dollar" question to Mr Ee, she asked:

> *"Given a lapse of four years, do you say at any point on the 17th, 18th or 19th that the CRP and/or white cell counts are matters that you should have raised for discussion with a consultant directly?"*

He responded:

> *"In my position now, yes"*

51. In response to a series of questions put to him by Mr Halley, Mr Ee confirmed he did not notify Mr Kamenjarin of the abnormal CRP and WCC results, Mr Ee went on to say that he would have expected junior doctors to convey that information to the consultant. In response to a question I put to him, Mr Ee conceded he should have told Mr Kamenjarin of the abnormal CRP and WCC results. Interestingly, Mr Ee stated that the junior doctors involved should have advised him of the results and it was, "remiss" not to do so. He explained the interns subsequently told him they did not directly convey the results to him because they were not aware of the significance of the results.

52. Significantly, Dr Iyengar advised it would be a minimum requirement to have the abnormal results noted in the medical record. Mr Ee said he held a different view and it was sufficient if they were "on the system", which I have taken to be the computerised records.

53. Bearing in mind Mr Ee conceded someone had raised the issue of abnormal pathology results, a central issue, with him after the event I find his explanation for not referring to them in his statement less than convincing, but as that aspect is a peripheral matter I take it no further. However, I add that I accept Mr Kamenjarin's evidence that he discussed these failures with Mr Ee subsequent to the events.

MR MICHAEL KAMENJARIN

54. Mr Kamenjarin was the general surgeon under whose care Mr Jennings was admitted to Goulburn Valley Health through the Emergency Department.

55. Mr Kamenjarin explained the regime of the general surgical department which at the time was a unit of a little less than 30 beds. The team is made up of surgical interns, surgical registrars and general surgeons. The interns and registrars look after all patients in the unit, but specific patients are, allocated a specific general surgeon.

56. Mr Kamenjarin maintained that when he undertook the consultant ward round on the morning of 18 April 2012 he was aware that Mr Jennings had been admitted due to a quad bike accident, was aware that scans had been arranged, and concluded at orthopaedic review was appropriate.

57. Mr Kamenjarin maintained he was not told of any abnormal blood results, adding that he would not have expected CRP to have been done because it was not normal practice to do so in trauma cases. However he stated that in this case as CRP was done in the Emergency Department on 17 April 2012, and as it showed a "massive elevation"[19] he would have expected to have been made aware of that result "up the line", through one of the registrars.

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[19] Transcript p. 96.

58. Mr Kamenjarin made an interesting response to Mr Halley asking whether if that CRP result had in fact been conveyed to him, it would have altered his assessment that he was dealing purely with a trauma case. He said:

> *"Having that result, then you would think this is not a trauma case. There's something else or it is a trauma case but there's also something else going on".*

59. Both Ms Ellis and Mr Halley made what I will call interesting submissions on behalf of their respective clients. In broad terms, in the examination of witnesses each sought to deflect responsibility from their client to their opponent's client. That of course is not a novel situation in this jurisdiction.

60. Ms Ellis conceded that Goulburn Valley Health "cannot escape being involved in the circumstances"[20] of Mr Jennings's death, but submitted that even if omissions in management are accepted I ought not to find them to be causative of Mr Jennings's death.

61. Mr Halley's fundamental submission was to the effect that his client accepted overall responsibility, but maintained the omissions in medical management were down to junior medical staff, not Mr Kamenjarin himself, because significant pathological results, which would have altered his assessment of Mr Jennings, were not communicated to him.

62. Ms Ellis, in my view appropriately, described Mr Kamenjarin's acceptanceof overall responsibility as "hollow"[21].

63. It seemed to me that both parties sought to blame "the system". Certainly as a result of the internal investigations, significant changes were made to practices and procedures, including those relating to communication. But the so called "system" does not operate in some sort of a nebulous vacuum, it operates through individual doctors.

64. The failure to communicate information which may have led to further investigations to exclude infection is critical because Mr Kamenjarin clearly stated that if he had been aware of those results would have administered anti-biotics, undertaken additional investigation with the prospect of Mr Jennings would not have been discharged .

65. In considering the reasonableness, or otherwise, of Mr Kamenjarin authorising Mr Jennings's discharge from Goulburn Valley Health on 20 April 2012, Mr Halley accepted that with the benefit of hindsight the discharge was not reasonable, but maintained that with the knowledge Mr Kamenjarin had at that time it was not unreasonable, after pain management and physiotherapy input, to discharge as a "soft tissue injury" due to the quad bike accident with a GP review some week later. Again Mr Halley argued Mr Kamenjarin was entitled to rely upon the inadequate information conveyed to him by sub-ordinates.

66. For all intents and purposes, Mr Jennings's admission was basically treated as a "simple trauma case". Mr Ellis submitted that the circumstances of the quad bike accident, together with Mr Jennings other co-morbidities, particularly the recent onset of acute gout to the right elbow, rendered the presentation more complex than a simple trauma case so that it mandated:

> *"... a cautious and thorough and comprehensive approach"*[22]

With the benefit of retrospection, that contention is irresistible, but I am required to consider the medical management of Mr Jennings "in the shoes of the doctors" treating Mr Jennings,

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[20] Transcript p.521.

[21] Transcript p. 513.

[22] Transcript p. 509.

without the benefit of hindsight. Quite frankly, knowing what occurred at the second admission, but discounting it, is quite an intellectual challenge.

THE EXPERTS:

DR TONY KORMAN

67. Dr Tony Korman, infectious disease physician and medical microbiologist, Director of Infectious Diseases at Monash University and Monash Health, was engaged by the court to provide an independent expert opinion as to the medical management of Mr Jennings.

68. Dr Korman provided quite a comprehensive report[23] and gave oral evidence at the inquest hearing.

69. Dr Korman's evidence provided much food for thought. Having examined the material available when I took over carriage of the matter, I had formed some tentative views about aspects of the medical management of Mr Jennings during the first admission to Goulburn Valley Health. At the Mention/ Directions Hearing, in an endeavour to progress the matter, I enquired as to whether any "concessions" were forthcoming as, on the face I had considered, there had been significant deficiencies in Mr Jennings management during that admission. I stressed at that hearing that the views I was expressing were tentative, subject to refinement, alteration, or indeed abandonment.

70. Now, as I pen this finding, I ponder whether I had, at that time fallen into the trap of looking at the issues with the not inconsiderable benefit of 'retrospection'. Retrospectively, putting all the pieces of the jigsaw puzzle together and looking at the picture is clearly not an appropriate method of gauging the performance of those involved "at the coalface" in the medical management of Mr Jennings. As I have stated in this and previous matters, I am required to put myself in the shoes of the clinicians, looking at the situation as events unfolded, without the benefit of hindsight.

71. In requesting his expert opinion several questions were formulated which I asked that Dr Korman address. Two of the questions formulated are addressed in his report. Because of their importance and for completeness, I include in full those excerpts from Dr Korman's report:

Question 1. Diagnostic work up on first presentation to Goulburn Valley Hospital. Was there sufficient evidence of an infective process to warrant a more complete work up for sepsis? Were the diagnostic tests undertake adequate?

Mr Jennings was admitted to GVH on 17 April 2012 with extensive soft tissue injury following a quad bike accident. He also had R. elbow swelling and pain which had commenced two days previously, and this was investigated by the treating general surgical team with Xray and CT scan which demonstrated only degenerative changes. He was reviewed by Orthopaedic surgery registrar who agreed with the diagnosis of olecranon bursitis ? acute gout. He developed L. groin pain CT abdomen demonstrated R. flank & tensor fascia hematoma and ?grade 1 sprain L. pectineus.

He had leucocytosis (WCC on admission 12.3 rising to 18 on 19 April) which are all consistent with sepsis but may also occur in the setting of severe

[23] Exhibit "K".

trauma and also acute gout. Markedly elevated levels of CRP are strongly associated with infection. However elevated CRP can occur due to other cause of inflammation, and also infarction and trauma. Persistent fever, leucocytosis and increasing CRP are to be an indication for exclusion of sepsis, with investigations recommended including diagnostic imaging (performed), urine culture (performed on 19 April) and blood cultures (not performed).

Question 2. Should the consultant in charge of the clinical management while in hospital have been aware of abnormal test results such as the elevated CRP. Any other comments about the communication between the consultant and junior medical staff or junior staff supervision.

Consultants in charge are ultimately responsible for patient management. Consultants should be aware of the clinical condition and significant investigations of all patients under their care and provide appropriate supervision for junior medical staff. Mr Jennings was reviewed on a ward round by the consultant in charge, General Surgeon Mr Kamenjarin, on the morning of 20 April and he was discharged later that day. The discharge summary mentions leucocytosis but not elevanted CRP. Mr Kamenjarin states that he was "not apprised of these results".

72. As is often the case, important aspects of the evidence of experts is found in their oral evidence, where counsel for interested parties have the opportunity to examine them. Often otherwise unaddressed issues are teased out, elaborated upon and explained to the benefit of the court, and also, I expect, to family members present.

73. Dr Korman accepted that while the manifestly elevated CRP is consistent with sepsis, but could also occur in the setting of severe trauma or indeed gout, there are competing differential diagnoses. He further indicated that if a diagnosis of sepsis is the correct one, it would require "urgent treatment"[24]. He further stated that in those circumstances it would be important to undertake sufficient investigation to address the prospect of infective process.

74. Mr Harper put to Dr Korman that to discharge Mr Jennings without excluding the prospect of infection was not reasonable practice. I must say I was somewhat surprised that Dr Korman did not accept that contention, stating that the decision to discharge is "not straight forward"[25]. Dr Korman agreed that a blood culture should have been taken, but maintained that in his view it was not unreasonable to discharge Mr Jennings prior to the prospect of sepsis being excluded. Dr Korman added that he did not consider Mr Jennings had severe sepsis at the time of discharge as Mr Jennings did not have features of severe sepsis. He did however concede the significant elevated CRP and the rise in white blood cell count were "concerning", but said whether Mr Jennings should have remained in hospital was another question, a "complex question".

75. In spite of being pressed on the issue,Dr Korman was not prepared to say Mr Kamenjarin, Mr Hollings and Mr Clifforth were wrong when they opined that discharge in the circumstances was unreasonable, maintaining it is not as straightforward as was being suggested.

76. In short, Dr Korman maintained that from what he understood about the "clinical state of the patient", discharge prior to exclusion of infection was not unreasonable, stating:

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[24] Transcript p.274.

[25] Transcript p. 274.

"... he may well have had severe infection that had commenced during his first admission but his clinical status was such that it was obvious he had severe infection only when he came in the second time."[26]

I must say I was somewhat perplexed by some of Dr Korman's responses because several questions later there was the following exchange relating to the results of blood tests taken on 17 April 2012 in the ED; Mr Harper said:

"... I want to suggest to you, it raises fairly and squarely the potential for sepsis"[27]

Dr Korman responded:

"There was certainly a concern with those blood tests that he had a severe infection, yes."[28]

77. Dr Korman agreed with the opinions of Dr Michael Burke and Mr Roly Hunt, the surgeon involved in the endeavour to salvage the situation when Mr Jennings was re-admitted, that it was more likely than not, that the collections of puss demonstrated at surgery were due to Staphylococcus aureus seeding rectus sheath haematoma and retroperitoneal bleeding from trauma sustained in the quad bike accident. I accept that it is likely the right elbow was the primary site of the infection and the acute pericarditis arose secondary to staphylococcus areus septicaemia.

78. Although he maintained his position in relation to discharge and the antibiotic therapy, Dr Korman accepted the proposition put to him by Ms Ellis that the presentation at the first admission was far from a simple trauma presentation, accepting that, particularly in light of Mr Jennings's co-morbidities, it was a complex presentation.

79. I have concluded that virtually the entire course of medical management after formal admission was focused on potential trauma following the quad bike incident, with little or no focus on the prospect of other reasons for what, on almost any view, was if not a deterioration in Mr Jennings's physical condition, at least no discernable improvement during the admission.

MR STEPHEN CLIFFORTH

80. Mr Stephen Clifforth, also a fellow of the Royal Australian College of Surgeons (RACS) was engaged by TressCox Lawyers acting for Mr Kamenjarin to provide an expert opinion. Mr Clifforth provide a report, but did not give oral evidence. His report is in evidence as part of Exhibit "Q"[29]. As he did not give viva voce evidence, Mr Clifforth was not examined by counsel for the interested parties.

81. In broad terms, Dr Clifforth maintains that as the significant blood test abnormalities were not brought to the attention of Mr Kamenjarin, and it would not be standard practice for the consultant in charge of a patient to make personal enquires as to those matters, Mr Kamenjarin could not be held "directly responsible" for any deficiencies in the medical management of Mr Jennings during the first admission[30].

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[26] Transcript p. 280.

[27] Transcript p. 281.

[28] Transcript p. 281.

[29] Brief p. 51.1-51.4

[30] Brief p. 51.3.

82. Mr Clifforth takes issue with Dr Korman's statement that consultants "should be aware", arguing that consultants "should be made aware". Mr Clifforth also disagrees with Dr Korman's opinion that in the circumstances, discharge on 20 April 2012 was suitable, but reverts to his fundamental position that as Mr Kamenjarin was not aware of the high leucocytosis and massively elevated CRP it was reasonable for Mr Kamenjarin to "accept discharge". The point I would make as to discharge is that I do not consider that Mr Kamenjarin "accepted" discharge, he personally authorised it.

83. I note several other interesting aspects of Mr Clifforth's statement. Mr Clifforth stated he is in "complete agreement" with Mr Hollings analysis of the case and recommendations on how it should have been handled. I suggest this is relevant to the weight to be attached to Mr Hollings's evidence.

84. Mr Clifforth opined that broad spectrum antibiotics should have been administered at the first admission. He did not believe that the "markedly elevated" CRP and elevated WCC could adequately be explained by trauma from the quad bike accident. The fact that the quad bike accident took place in a paddock on the farm, where contamination of the soil would almost be certain, together with the fact Mr Jennings suffered abrasions in the accident and had prosthetic knees, in combination, warranted antibiotic therapy upon the first admission.

85. I include the following excerpt in this finding as I believe it is very significant; Mr Clifforth wrote:

> *"Mr Jennings's condition seems to have deteriorated during his admission with rising CRP (above 500) and rising white cell count consistent with an ongoing and worsening inflammatory condition"*[31] (my emphasis).

I will make a formal finding in relation to appropriateness of excluding the prospect of severe investigation prior to discharge in the conclusions to my finding.

CONCLUSIONS

86. The core findings I make are summarised as follows:

- After the second admission to Goulburn Valley Health Mr Jennings succumbed to an overwhelming septicaemia (staphylococcus aureus) leading to multi-system organ failure and pericarditis.
- During the first admission Mr Jennings was managed by the surgical "team".
- A number of members of that "team" were aware of an elevated and rising WCC, a grossly elevated CRP and a neutrophil count that almost doubled during the admission.
- Those more junior members of the "team" involved in the care and treatment of Mr Jennings (including the Senior Registrar) were not aware that those abnormal blood results were likely indicators of a potential for a developing bacterial infection.
- Those concerning abnormal results were not entered in the medical records and were not conveyed to the consultant, Mr Kamenjarin, under whose bed card Mr Jennings was admitted as a private patient.

[31] Brief p.51.2.

- Those pathology results were conveyed to Mr Kamenjarin's rooms, but he did not access that particular information (which Mr Halley conceded "... perhaps he should have"[32]) prior to the discharge of Mr Jennings which he authorised.
- I accept that Mr Kamenjarin was not aware of the abnormal blood results, nor did he interrogate junior staff in relation to results of blood tests undertaken either in the ED, in the course of treatment during the first admission, or at the time of discharge.
- I do not accept the contention that Mr Jennings's overall condition improved during the first admission, although I accept that during the first admission Mr Jennings did not have septicaemia. I also accept that at discharge there were no strong clinical features of infection.
- Mr Kamenjarin was the RACS appointed supervisor of surgical trainees at GVH and held the specific role at GVH of Director of Medical Education Research for the Department of Surgery. He was the "captain of the team" so to speak. In accepting "absolute responsibility", I do not believe Mr Kamenjarin can seek to deflect responsibility down the chain of command. I have had some difficulty trying to rationalise his position; one accepts responsibility or one doesn't. Reverting to the vernacular to make my point, it seemed to me Mr Kamenjarin's acceptance of "absolute responsibility" was a "Claytons" acceptance. I believe Mr Kamenjarin should have, if for nothing else, for training and education purposes, proactively made enquiries as to what investigations had been undertaken.
- If he had done so I am entitled to conclude he would have been advised of the abnormal blood test results which he, of his own admission, would have appreciated and commenced intravenous anti-biotic management.
- While one cannot be definitive, the weight of evidence convinces me that had intravenous antibiotic therapy been commenced during the first admission there was a good prospect that Mr Jennings's developing infection would have been halted/ reversed. In fact I am satisfied it is more likely than not he would have survived; it was an opportunity lost.
- To be blunt, the medical management of Mr Jennings by the relevant surgical "team" during the first admission could be viewed as at best suboptimal, at worst a tragedy of errors. There was a distinct lack of teamwork.

87. In the final analysis, while not wishing to be seen as laying or apportioning blame per se, I conclude that the omissions in the management of Mr Jennings during the first admission, at each level of the chain of command, were causal and/or contributing factors in his death.

COMMENTS

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

88. The chief Medical Officer GVH, Dr Vasudha Iyengar, at paragraph 27 of her supplementary statement made reference to a system developed at the Austin Hospital called "LabMet" which is currently being trialed at GVH. The system provides that significantly abnormal pathology

[32] Transcript p. 50

results are automatically conveyed to doctors by text message. Goulburn Valley Hospital is the first rural hospital trialling "LabMet".

Mr Halley, commented that the "LabMet" texting system would appear to be a far more efficient system than a "paper trail". I took Mr Halley's suggestion, supported by Ms Ellis, to be a request that the Court support the trial. I certainly do support the trial as it would likely reduce the prospect of important, if not critical, information "falling through the cracks". I considered whether I should make a formal recommendation regarding "LabMet". However, as it is only a trial, I consider it premature for me to seek to formulate a formal recommendation, however, by way of a comment, I strongly support the initiative.

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

Mrs Jennings, Senior next of kin

Coroner's Investigator

Signature:

PHILLIP BYRNE
CORONER
Date: **21 June 2016**