



CORONERS COURT OF QUEENSLAND

FINDINGS OF INQUEST

CITATION: **Inquest into the death of Cary James Saunders**

TITLE OF COURT: Coroners Court

JURISDICTION: BRISBANE

FILE NO(s): 2017/4762

DELIVERED ON: 26 July 2021

DELIVERED AT: Brisbane

HEARING DATE(s): 26 July 2021

FINDINGS OF: Terry Ryan, State Coroner

CATCHWORDS: Coroners: inquest, death in custody, natural causes, infective endocarditis leading to cerebral haemorrhage.

REPRESENTATION:

Counsel Assisting: Ms Sarah Lio Willie

Queensland Corrective Services: Ms Megan Lincez

CQHHS: Ms Kristy Richardson

Contents

Introduction	3
The investigation.....	3
The inquest.....	3
The evidence	4
Autopsy results	8
Conclusions	10
Findings required by s45.....	11
Identity of the deceased.....	11
How he died.....	11
Place of death.....	11
Date of death	11
Cause of death	11
Comments and recommendations	11

Introduction

1. Mr Cary James Saunders had been serving a term of imprisonment at the Capricornia Correctional Centre (CCC) since 16 February 2017.
2. On 15 October 2017, Mr Saunders was taken to the Rockhampton Hospital for treatment of a suspected infection. He was later transferred to the Princess Alexandra Hospital (PAH) in Brisbane, where he died on 24 October 2017. He was aged 57 at the time of his death.
3. As Mr Saunders was a prisoner in custody as defined in the *Coroners Act 2003* an inquest was required in relation to his death.

The investigation

4. Mr Saunders' death was investigated by Detective Sergeant Stephen Carr of the Queensland Police Service Corrective Services Investigation Unit. DS Carr compiled a coronial brief consisting of his report, dated 3 December 2019, together with:
 - medical records from CCC and the PAH;
 - statements from Mr Saunders' son and sister;
 - statements from the primary treating doctors at Rockhampton Hospital and PAH;
 - statements from the visiting medical officers at CCC; and
 - Queensland Corrective Services records.
5. DS Carr concluded that Mr Saunders was provided with adequate care and concluded that there were no suspicious circumstances in relation to his death.
6. DS Carr's report noted that Mr Saunders' family were concerned about the fact that he was required to sleep on a mattress on the floor of his cell with a hernia. They were concerned his significant weight loss and other health concerns were caused or exacerbated by this. Consequently, a statement was obtained from the Superintendent of CCC, Ms Alexis Livingstone, setting out Mr Saunders' accommodation history at that centre and the relevant policies for cell sharing.
7. A review of the health care provided to Mr Saunders in the lead up to his death was also obtained from the Clinical Forensic Medicine Unit in Queensland Health.

The inquest

8. The inquest was held on 26 July 2021. All statements, medical records and material gathered during the investigation into Mr Saunders' death were tendered into evidence. Counsel Assisting proceeded to submissions in lieu of any oral testimony.
9. The inquest considered the findings required by s 45(2) of the *Coroners Act 2003*. Having regard to concerns identified by Mr Saunders' family, the findings also consider the adequacy of the health care provided to Mr Saunders while he was in custody.

The evidence

10. Mr Saunders was born in Goondiwindi. When he was a teenager his family moved to a town in Central Queensland. He was known to his family and friends as “Spike”.
11. At age 17, Mr Saunders enlisted in the Australian Army, and served tours in Malaya and Korea. He left the army at age 22 and returned to Central Queensland to work in a local sawmill, which was managed by his father.
12. Mr Saunders relocated to Mt Isa in 1986 after the death of one of his sons in an accidental caravan fire.¹ He worked there as a machine operator in the Mount Isa mine.
13. Prior to his imprisonment, Mr Saunders had returned to Central Queensland and started a new relationship.² Mr Saunders maintained contact with his new partner and family during his time in custody by way of telephone calls and letters. He clearly enjoyed a close relationship with them. I extend my condolences to his family and friends.

Medical history

14. In 2012, Mr Saunders had an echocardiogram which concluded he had:
 - Normal left ventricular size with low normal function
 - Borderline left ventricular hypertrophy
 - Borderline posterior mitral valve prolapse with no significant regurgitation (no need for antibiotic prophylaxis)
 - Mild aortic regurgitation
15. From the available medical records, it appears that the aortic regurgitation and mitral valve prolapse were monitored throughout the years. It is unclear whether he received specific medical treatment in the community for these conditions.
16. During a health check in custody on 30 September 2016, Mr Saunders disclosed to nursing staff that he had a heart murmur, reflux and depression.³

Criminal and correctional history

17. On 19 August 2016, Mr Saunders was convicted and sentenced for offences including maintaining a sexual relationship with a child, indecent treatment of a child, stupefying to commit an indictable offence and common assault. He was sentenced to a head sentence of six years imprisonment, with a parole eligibility date of 27 July 2018. He had been remanded in custody at the Townsville Correctional Centre for these offences from 20 August 2013 to 11 September 2013, when he was granted bail.

¹ Ex B3 – para.3 – 6

² Ex B4 – para. 6.

³ Ex D2 – Capricornia Offender Health Services medical records, p.5

18. Mr Saunders was originally received into the Brisbane Correction Centre (BCC) on 19 August 2016. From 9 September 2016, Mr Saunders was placed into a shared cell with one other prisoner. This was due to the operational requirements of BCC. Mr Saunders did not express any concerns with the arrangement.⁴
19. Mr Saunders asked for a transfer to the CCC to be closer to his family. He was transferred on 16 February 2017 and remained there until his death. During his time at CCC, Mr Saunders remained in a double up, shared cell with another prisoner in a protection unit. This was because the prison was operating above its built capacity. These placements were made with his consent and in accordance with the Custodial Operations Practice Directive - Accommodation and Case Management.⁵
20. Mr Saunders slept on a mattress on the floor of the cell. On occasion, including his final days at CCC, he was moved to the prison's Medical Centre and accommodated in medical beds.⁶ Although he told his family that he was not happy sharing a cell, he did not express any concerns with prison staff. If it was considered that the cell sharing arrangements were impacting negatively on his health, arrangements would have been made for him to be allocated a single cell. He was not observed to interact with many other prisoners, and was always compliant.⁷
21. Mr Saunders' sister stated that while he was in BCC he was as happy as one could be in jail. He would call her twice a week and he did not disclose any issues. He was looking forward to being transferred to CCC as she and the rest of his family could visit him in prison. His partner had visited Mr Saunders while he was imprisoned at BCC.⁸
22. However, about a week after Mr Saunders was transferred to CCC he told his sister, "you're not coming to visit me in this horrible place". He discouraged his family from visiting him in CCC, and they never did. Prior to his death, his sister had not heard from Mr Saunders for a few weeks. She became aware he was in hospital when the PAH called her. QCS records indicated that Mr Saunders' primary contact person was listed as his former spouse, who had been nominated by him when he first entered custody in August 2013.⁹

Events Leading up to the Death

23. Visiting medical officer (VMO) notes from BCC on 23 August 2016 documented an echocardiogram result from July 2016 that was consistent with the 2012 echocardiogram. As he was returning to CCC it was planned that cardiology review would be facilitated there.
24. On 22 July 2017, during Mr Saunders' annual health check-up, the VMO noted that he had an aortic heart murmur with a normal ECG and an inguinal hernia.¹⁰ A progress echocardiogram was planned.

⁴ Ex C2 – QCS Case File, p.3

⁵ Ex B3.7

⁶ Ex B3

⁷ Ex C2 – QCS Case File,

⁸ Ex B4 – Statement of sister, para. 8 – 10

⁹ Ex B3

¹⁰ Ex B1 – Statement of Dr Davies, para. 6 (An inguinal hernia is a bulging of the contents of the abdomen through a weak area in the lower abdominal wall.)

25. On 25 September 2017, Mr Saunders reported to the VMO that he was suffering from nausea daily and had persistent pain in his groin from the hernia. He reported that he was losing weight and not eating, and the day before had been vomiting. The VMO recorded that Mr Saunders was pale and looked unwell. His abdomen was soft, and he had a large inguinal hernia on his left side, but his bowel sounds were normal.
26. An urgent blood test and CT of the abdomen were ordered.¹¹ Results indicated worsening microcytic, hypochromic anaemia as well as a low sodium level. A CT scan of his abdomen and pelvis on 5 October 2017 showed a moderate sized indirect left inguinal hernia containing non-obstructed loops of small bowel.
27. On 8 October 2017, Mr Saunders reported to CCC nursing staff that he had lower back pain, a sore right foot, ongoing lethargy, and nausea mostly at night. He also indicated he had lost about 14kg over the previous 4 weeks.¹² However, records indicate that he had lost approximately 5kg over the previous four months.
28. On 9 October 2017, he was reviewed again and reported he was still experiencing weight loss, nausea and vomiting. The VMO suggested he be reviewed at Rockhampton Hospital.¹³ He was reviewed at the Rockhampton Hospital on the same day and was returned with referrals for urgent gastroscopy and colonoscopies and for surgical review with a view to repair his hernia.
29. During a health check on 10 October 2017, Mr Saunders returned to his cell and the VMO requested that the nurse see him daily on sick parade.¹⁴ The medical file noted a letter from the Rockhampton Hospital of same date, indicating Mr Saunders required a colonoscopy and endoscopy.
30. Mr Saunders continued to experience pain with limited relief being given to him by the medication prescribed. However, his observations remained normal. On 13 October 2017, the VMO prescribed an increase in his pain medication and Mr Saunders was moved to the medical unit overnight for observation.
31. On 15 October 2017, Mr Saunders was getting “the shakes” and had a temperature of 38 degrees but he did not report an increase in pain. Mr Saunders was subsequently taken to the Rockhampton Hospital Emergency Department.¹⁵ Upon admission, he reported a weight loss of 16kg over the past 3 to 5 months, anorexia, abdominal pain, fevers, chills, night sweats, inguinal hernia, rectal bleeding and haematuria (blood in his urine).¹⁶ He was presumed to have a kidney infection because of his fever, haematuria and left flank pain. He was treated with intravenous antibiotics. A CT scan of his abdomen and pelvis was reported as normal, apart from the inguinal hernia.

¹¹ Ex B2 – Statement of Dr Quinn, para. 7

¹² Ex D2 – Capricornia Offender Health Services medical records, p.25

¹³ Ex B2 – Statement of Dr Quinn, para. 8

¹⁴ Ex B1 – Statement of Dr Davies, para. 7

¹⁵ Ex B1 – Statement of Dr Davies, para. 10

¹⁶ Ex D2 – Capricornia Offender Health Services medical records, p. 60

32. Rockhampton Hospital records from 17 October 2017 note that Mr Saunders had improved but the source of infection had not been identified. The chart records that while malignancy was considered less likely there was a suspicion for bacterial endocarditis, which needed to be excluded. Antibiotic treatment was subsequently changed from ampicillin to benzyl penicillin.¹⁷
33. On 19 October 2017, a transthoracic echocardiogram revealed a large vegetation (an accumulation of bacteria and clot material) on the posterior mitral valve leaflet measuring approximately 3cm in maximum dimension with a small vegetation on the anterior mitral valve leaflet with mild to moderate mitral regurgitation.
34. On 20 October 2017, Mr Saunders experienced a period of reduced consciousness with confusion. He was thought to have developed septic emboli to the brain. He was subsequently transferred to the Princess Alexandra Hospital via the Royal Flying Doctor Service.¹⁸ A brain MRI showed acute infarction in the left temporal lobe and multifocal microhaemorrhages concerning for septic emboli. It was also noted that the left middle cerebral artery showed an area of stenosis consistent with thrombosis.¹⁹ Gentamicin was added to his antibiotic coverage.
35. Mr Saunders was diagnosed with infective mitral valve endocarditis and acute cognitive decline.²⁰ He was also thought to have septic arthritis in his left sternoclavicular joint.
36. On 22 October 2017, Mr Saunders had deteriorated in the coronary care unit and required intubation. He was admitted to the intensive care unit. A CT scan revealed he had a large intracerebral bleed secondary to a ruptured aneurysm. The bleeding was significant and resulted in marked compression of the brain. He had significant hydrocephalus (fluid on the brain). Mr Saunders underwent surgery to insert an external ventricular drain (EVD) and craniectomy to relieve the haematoma. An aneurysm involving the left middle cerebral artery was clipped.²¹
37. The postoperative CT scan revealed that the hydrocephalus had worsened despite the surgical intervention. There was persistent swelling and compression of the brain. The neurosurgical team changed the EVD but there was no significant drainage. A new left subdural haemorrhage was present.
38. The prognosis was poor, and a meeting was held with the neurosurgical registrar and Mr Saunders' family. The neurosurgical registrar confirmed that there were no further medical interventions available. Mr Saunders' family agreed that mechanical ventilation should be stopped, as continuing with such intervention would be against his wishes.²²
39. On 24 October 2017, Mr Saunders' life support was ceased, and he was pronounced life extinct at 5.31pm.

¹⁷ Ex D3, Rockhampton Hospital Records, page 30

¹⁸ Ex D1 – Princess Alexandra Hospital medical records, p.92

¹⁹ Ex A7 – Autopsy report, p.13

²⁰ Ex D1 – Princess Alexandra Hospital medical records, p.1

²¹ Ex B5 – Statement of Dr Moss

²² Ex B5 – Statement of Dr Moss

Autopsy Results²³

40. An external and full internal post-mortem examination was performed by Forensic Pathologist, Dr Forde, at Queensland Health Forensic and Scientific Services on 27 October 2017.
41. The external examination did not reveal any notable characteristic features of endocarditis.
42. The internal examination of the heart showed features typical of bacterial (infective) endocarditis with acute inflammatory cells and scattered residual aggregates of coccoid bacteria. The mitral valve was slightly thickened and myxoid. There was no significant coronary atherosclerosis.
43. The examination of the brain showed evidence of previous craniectomy with brain extruding through the defect. The brain was examined by neuropathologists. This examination showed:
- Bacterial vasculitis (mycotic aneurysm) of the left middle cerebral artery, with surgical clip
 - Left temporal lobe haemorrhage with intraventricular extension
 - Recent infarction of the left occipital lobe
 - Septic microinfarction in the pons
 - Patchy subarachnoid haemorrhage
 - Hypoxic encephalopathy.
44. Dr Forde explained that the initial symptoms of infective endocarditis are non-specific and can include fevers, chills, night sweats, lethargy, malaise and weight loss. Infective endocarditis is a condition in which bacteria enter the blood stream and infect the heart valves forming friable vegetations on the valve leaflets. These vegetations can cause dysfunction of the valve, but fragments can also 'break off' and travel through the blood stream (septic emboli), obstructing circulation in other organs causing infarction and abscess formation. They can also lodge in vessels causing vasculitis (inflammation of the vessels) and mycotic aneurysms (dilation of the infected vessel) which can lead to vascular rupture. Both complications occurred in Mr Saunders' case, with cerebral infarction and ruptured mycotic aneurysm of the left middle cerebral artery leading to extensive haemorrhage.
45. People with valvular abnormalities, including mitral valve prolapse like Mr Saunders, are more susceptible to developing endocarditis. Therefore, this was a 'significant contributing factor' in Mr Saunders' death. The underlying cause of his mitral valve prolapse was unclear, but could include myxoid degeneration of the bowel, previous infection or it may have been idiopathic (cause unknown).
46. Dr Forde concluded that the cause of death was:
- 1a. Intracerebral haemorrhage, due to, or as a consequence of
 - 1b. Ruptured mycotic aneurysm, due to, or as a consequence of
 - 1c. Infective endocarditis (streptococcus mitis)
 2. Mitral valve prolapse was a significant condition.

²³ Ex A7 – Autopsy report

Review of clinical management

47. Dr Samantha Duncan from the Clinical Forensic Medicine Unit provided a helpful opinion in relation to Mr Saunders' medical treatment in custody.²⁴
48. Dr Duncan noted that Mr Saunders had a history of moderate mitral regurgitation which was under acceptable surveillance. He had been monitored in the 12 months prior to his final illness, consistent with the American Heart Association/American College of Cardiology guidelines.
49. He had a groin hernia related to an increasing weakness in his abdominal wall, but this would not have been caused or exacerbated by his sleeping or living arrangements in custody. There was no indication that this hernia required repair with any urgency, and it was not associated with his death.
50. After he presented with anaemia and non-specific gastrointestinal symptoms, he was sent for a screening CT abdomen which was not diagnostic. He then presented two weeks later (9 October 2017) with worsening symptoms which prompted a request for immediate review at Rockhampton Hospital. Dr Duncan agreed that a diagnosis of gastrointestinal illness or malignancy would have understandably been the priority at this time and arrangements were made for urgent gastroscopy and colonoscopy.
51. Dr Duncan noted that infective endocarditis refers to infection of the inner lining of the heart, usually of one or more heart valves or infection of an intracardiac device. This may present as a rapidly progressive infection or a chronic disease with low grade fever and non-specific symptoms. Fever is the most common symptom, often associated with chills, loss of appetite and weight loss.
52. Infective endocarditis is an uncommon disease with approximately 10-15 per 100,000 persons affected. Approximately 75% of patients have pre-existing structural cardiac abnormalities including valvular disease. Patients with mitral valve prolapse have an eightfold increased risk of developing infective endocarditis. The six-month mortality among patients with infective endocarditis ranges up to 27 percent.
53. Dr Duncan noted that Mr Saunders had increased medical surveillance in the prison after 9 October 2017 and as soon as he developed a fever, he was returned to the Rockhampton Hospital and admitted for investigation and treatment. While his antibiotic treatment was targeted towards a urinary tract infection rather than endocarditis, the antibiotics used would have been effective in treating the underlying organism, both covering streptococcus species.
54. Dr Duncan said that unfortunately Mr Saunders suffered a recognised complication from his endocarditis of septic embolisation. This resulted in bacteria laden clots being sent into multiple vessels and causing infarction and haemorrhage in those areas. He was transferred to the PAH as soon as he demonstrated a neurological deterioration. He was continued on antibiotic therapy. However, an infected clot settled in a major cerebral artery with subsequent inflammation, weakening and finally rupturing that artery with catastrophic haemorrhage. Despite neurosurgical intervention he had a fixed severe neurological deficit and died after supportive medical treatment was withdrawn.

²⁴ Ex A9

55. Dr Duncan was unable to identify any missed treatment opportunities in the medical records she reviewed. She noted that Mr Saunders had presented with an initially indolent form of a rare disease and the diagnosis was unclear at each medical review until the growth of bacteria occurred on blood cultures.
56. Dr Duncan considered that Mr Saunders was treated with appropriate antibiotics but unfortunately suffered a lethal complication for which there was no preventative measure, other than antibiotic treatment of the underlying disease.
57. Although there was a missed opportunity for consultation regarding screening gastroscopy and colonoscopy scheduled for 23 August 2016 due to Mr Saunders' arrival at the Brisbane Correctional Centre, as he had no raised markers of inflammation and no evidence of endocarditis on echocardiogram in the month before this entry, the symptoms which triggered the referral were not likely to have been associated with his subsequent illness and were not outcome changing.

Conclusions

58. Mr Saunders entered custody with several pre-existing health conditions including moderate mitral regurgitation, which placed him at increased risk of infective endocarditis. I accept Dr Duncan's opinion that the surveillance of his cardiac health was monitored in an acceptable way, consistent with the relevant professional guidelines.
59. Mr Saunders also had a hernia related to an increasing weakness in his abdominal wall. While the pain from the hernia may have masked the symptoms related to his cardiac illness, I accept that the hernia did not require urgent repair, and it was not connected with his death. After his symptoms worsened at the prison, he was regularly reviewed at the Rockhampton Hospital. He was treated appropriately with antibiotics while the diagnosis was being clarified.
60. When Mr Saunders' health deteriorated rapidly at the Rockhampton Hospital, he was transferred urgently to the PAH. Unfortunately, he had suffered a recognised complication of endocarditis, which led to clots in the vessels of his brain and subsequent haemorrhage. Neurosurgery was carried out but by that time Mr Saunders had suffered irreparable brain damage.
61. No adverse comment can be made about the care and attention Mr Saunders received in custody. None of the staff involved at CCC, the Rockhampton Hospital or the PAH contributed to his death. I am satisfied that Mr Saunders was given appropriate medical care by staff at CCC, the Rockhampton Hospital and PAH while he was admitted there. His death could not have reasonably been prevented.
62. It is an accepted principle that the health care provided to prisoners should not be of a lesser standard than that provided to other members of the community. The evidence tendered at the inquest established the adequacy of the medical care provided to Mr Saunders when measured against this benchmark.

Findings required by s. 45

Identity of the deceased – Cary James Saunders

How he died –

In August 2016, Mr Saunders was sentenced to six years in prison for serious sexual offences. He had pre-existing aortic regurgitation and mitral valve prolapse. This increased his risk of infective endocarditis, which is a rare condition. The symptoms can be extremely variable and are difficult to diagnose.

On 25 September 2017, Mr Saunders reported that he was suffering from nausea daily and had persistent pain in his groin from a hernia. He was transferred to the Rockhampton Hospital for assessment. After he continued to deteriorate Mr Saunders was diagnosed with infective mitral valve endocarditis.

He was transferred to the Princess Alexandra Hospital for neurosurgery but did not recover from an intracerebral haemorrhage which resulted from an infected clot in a cerebral artery.

Place of death –

Princess Alexandra Hospital Ipswich Road
WOOLLOONGABBA QLD 4102 AUSTRALIA

Date of death–

24 October 2017

Cause of death –

1a. Intracerebral haemorrhage, due to, or as a consequence of
1b. Ruptured mycotic aneurysm, due to, or as a consequence of
1c. Infective endocarditis (streptococcus mitis)
2. Mitral valve prolapse was a significant condition.

Comments and recommendations

63. The circumstances of Mr Saunders' death do not call for any comment relating to issues of public health and safety or the administration of justice or ways to prevent deaths from happening in similar circumstances.

64. I close the inquest.

Terry Ryan
State Coroner
BRISBANE