QUEENSLAND COURTS

OFFICE OF THE STATE CORONER

FINDINGS OF INQUEST

CITATION:	**Inquest into the death of Robert Dennis McIntosh**
TITLE OF COURT:	Coroner's Court
JURISDICTION:	Brisbane
FILE NO(s):	COR 2013/1901
DELIVERED ON:	12 June 2015
DELIVERED AT:	Brisbane
HEARING DATE(s):	9 April and 28 May 2015
FINDINGS OF:	Mr Terry Ryan, State Coroner
CATCHWORDS:	CORONERS: Death in custody, natural causes; treatment of prisoners with cirrhosis of the liver and hepatitis C.

REPRESENTATION:

Counsel Assisting:	Mr Peter Johns; Miss Emily Cooper
Arthur Gorrie Correctional Centre:	Ms Jennifer Rosengren (Instructed by Ashurst)
West Moreton Hospital and Health Service:	Ms Holly Ahern
Metro South Hospital and Health Service:	Ms Fiona Banwell

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Introduction

On 25 May 2013, Robert McIntosh, 55, was transferred to the Princess Alexandra Hospital (PAH) from the Arthur Gorrie Correctional Centre (AGCC). He had been experiencing abdominal distension and nausea for the previous week. On admission to the PAH, he was noted to have clinical features of chronic liver disease. By the afternoon of 28 May 2013 his prognosis was assessed as very poor. At 7:55pm on 29 May 2013, he was pronounced deceased.

These findings:

- confirm the identity of the deceased person, how he died, and the time, place and medical cause of his death;
- consider whether any third party contributed to his death;
- determine whether the authorities charged with providing for the prisoner's health care adequately discharged those responsibilities; and
- consider whether any changes to procedures or policies could reduce the likelihood of deaths occurring in similar circumstances or otherwise contribute to public health and safety or the administration of justice.

The investigation

Detective Sergeant Greg Bishop from the Queensland Police Service (QPS) Corrective Services Investigation Unit (CSIU) conducted an investigation into the circumstances leading to the death of Mr McIntosh.

After being notified of Mr McIntosh's death, the CSIU attended the PAH and the AGCC whereby an investigation ensued. Photographs were taken of the scene at the PAH. The investigation obtained Mr McIntosh's correctional records and his medical files from both the AGCC and the PAH. The investigation was informed by interviews with Mr McIntosh's fellow inmates at the AGCC, and statements from all relevant custodial officers at the AGCC, medical staff from the PAH including the treating gastroenterologist, an independent general practitioner, and the QAS. These statements and interviews were tendered at the inquest.

Forensic pathologist, Dr Philip Storey, conducted an external autopsy examination with a CT scan and a review of the medical records. Further photographs were taken during this examination.

At the request of the Office of the State Coroner, the West Moreton Hospital and Health Service (WMHHS) provided information with respect to the care of prisoners with cirrhosis of the liver and hepatitis C.

I am satisfied that the investigation was thoroughly and professionally conducted and that all relevant material was accessed.

The Inquest

An inquest was held in Brisbane on 28 May 2015. All the statements, records of interview, medical records, photographs and materials gathered during the investigation were tendered at the inquest.

Counsel assisting at the pre-inquest conference, Mr Johns, proposed that all evidence be tendered, and that oral evidence be heard from the following witnesses:

- Detective Sergeant Bishop;
- Dr Graeme Macdonald;
- Dr Brian Kable; and
- Ms Shirley Sheppard.

I consider that that the evidence tendered in addition to the oral evidence from these witnesses was sufficient for me to make the requisite findings.

The evidence

Personal circumstances and correctional history

Robert McIntosh was born in Kempsey, New South Wales on 16 June 1957. He was 55 years of age when he died. Information provided by QCS confirmed that Mr McIntosh had commenced using illicit drugs as a child. He also had a history of hepatitis C.

Mr McIntosh's criminal history began as a juvenile in New South Wales in 1971. He was consistently before the courts in both New South Wales and Queensland with respect to property related offences and minor drug offences. He had previously been incarcerated in Queensland for these types of offences between 1998 and 2005. This included a period on work release between 5 March 2003 and 11 August 2003.

On 4 May 2012, Mr McIntosh was remanded in custody on a break and enter offence. On 9 May 2012, he was transferred to AGCC where he stayed on remand until the time of his death.

Mr McIntosh's next of kin was his daughter, Shaylee McIntosh. She was contacted upon her father being admitted to the PAH and was present when he passed away. She did not raise any concerns about her father's medical care while in custody. I extend my condolences to her and other members of Mr McIntosh's family.

Medical history

Mr McIntosh's medical history included surgery for the removal of his gall bladder on 16 April 2003 and chronic liver disease on a background of longstanding alcohol and drug abuse. He also had hepatitis C and was a heavy smoker.

Surgical notes from April 2003, when Mr McIntosh was on work release, indicate that the surgeon who removed his gall bladder considered that the

appearance of his liver was consistent with cirrhosis. It is unclear whether this constituted a diagnosis of cirrhosis or a potential diagnosis. No histology was undertaken to definitively diagnose cirrhosis. It was not communicated to Mr McIntosh.

Mr McIntosh was seen by medical personnel on an intermittent basis while incarcerated at AGCC during 2012-2013. Upon his reception to the AGCC on 9 May 2012, he informed correctional staff that he was experiencing drug withdrawals and suffering from cramps, poor sleep and nausea. He confirmed he had hepatitis C. He optimistically expressed his intent to turn his life around and quit taking drugs.

Blood tests were ordered as part of the reception process at AGCC and became available on 14 May 2012. Dr Pham, general practitioner, discussed the results with Mr McIntosh on 25 May 2012. At that time he was afebrile, had no jaundice and his abdomen was soft and not tender. A further blood test was undertaken on 28 May 2012 and again there was no indication that Mr McIntosh's liver disease had progressed to cirrhosis.

During May, June and September 2012, Mr McIntosh was treated for various skin lesions. In December 2012, after he complained to correctional staff that he was not feeling well and that he had blood stained urine he was seen by a doctor. On 15 May 2013, a liver function test was ordered which showed a similar degree of derangement as previously ordered tests. He was not displaying any other symptoms of chronic liver disease.

His final admission to the PAH on 25 May 2013 was brought about after a week long history of increasing abdominal distension with evidence of significant ascites and dependent oedema.

Events leading to death

On 24 May 2013, Mr McIntosh sought medical treatment for a distended abdomen, poor appetite, nausea and swollen legs. Dr Hock Seow, a visiting medical officer at the AGCC, provided information that Mr McIntosh informed him he had been feeling unwell for the past week and had been waiting for the swelling to go away. Information provided by his fellow inmates suggested that they would raise concerns with Mr McIntosh about his health and encourage him to seek treatment, but he did not respond to their concerns until 24 May 2013.

Dr Seow conducted a full physical examination and found that Mr McIntosh had massive abdominal distension with evidence of ascites (build-up of fluid in the abdominal cavity) and acute liver failure. Dr Seow reviewed recent blood test results on Mr McIntosh's file, which were highly suggestive of a diagnosis of deteriorating liver failure. Dr Seow referred him urgently to the PAH. Mr McIntosh remained in the AGCC medical centre overnight, and was transferred to the PAH the next morning, 25 May 2013. QAS officers, who transported him, noted he had a bloated stomach.

On admission to the PAH, Mr McIntosh was noted to have clinical features of chronic liver disease including shifting dullness in the abdomen. Initial blood tests showed normal haemoglobin, white cell count and serum potassium levels. Liver function tests showed an elevated bilirubin with moderate elevations in hepatic enzymes. Over the first 24 hours, approximately 3.4 litres of ascitic fluid were drained from the abdomen.

On 27 May 2013, a CT scan of the liver was performed. This showed that the liver was small with a nodular surface in keeping with cirrhosis. There was extensive right portal vein thrombosis. The spleen was enlarged and there was a 5cm x 4cm hypodense mass lesion.

Overnight, Mr McIntosh suffered two episodes of haematemesis (vomiting of blood). The bleeding was stopped and by the afternoon of 28 May 2013, there had been no further instances of vomiting blood. However, Mr McIntosh was still feeling generally unwell and nauseas. He was experiencing progressive hepatic encephalopathy. Blood gases showed a significant acidosis with an increased blood lactate. His haemoglobin had decreased and his white cell count had increased. He was assessed as having a very poor prognosis.

A liver specialist reviewed Mr McIntosh and it was noted that he had a large hepatocellular carcinoma with vascular invasion occupying most of the right lobe of the liver and the right portal vein. Bowel sounds were absent and his abdomen was tender. He was experiencing progressive renal impairment. It was felt that he was experiencing gut ischaemia from extension of his portal vein thrombosis, together with worsened hepatic encephalopathy from his gastrointestinal haemorrhage. There were no appropriate treatment options available, so he was assessed for palliative care. He passed away at 7:55pm on 29 May 2013.

Autopsy results

Forensic pathologist, Dr Philip Storey, conducted an external examination with abdominal CT scan and associated toxicology testing on 31 May 2013. Dr Storey also conducted a review of the medical records.

Dr Storey explained cirrhosis as a condition involving severe generalised scarring of the liver resulting in impairment in the liver's functions together with complex changes in the circulation of the liver. Cirrhosis leads to a state of portal hypertension - an increase in the pressure within the vessels supplying the liver with blood from the gastrointestinal tract.

Cirrhosis of the liver of any cause also predisposes to the development of primary cancer within the liver (hepatocellular carcinoma). Investigations at the PAH showed that the cancer was present and had invaded the local blood vessels around the liver. Dr Storey confirmed that those changes can have life-threatening consequences including:

- Sudden decomposition in liver function;
- Dilatation of the blood vessels at the gastro-oesophageal junction;
- Formation of large amounts of ascites;
- Development of fluid accumulation in the legs; and

- The possibility of infection in the ascitic fluid.

Dr Storey also explained the episodes of haematemesis (acute bleeding from the upper gastrointestinal tract) suffered by Mr McIntosh in the hospital. A gastroscopy procedure showed that this was due to acute bleeding from the dilated veins at the gastro-oesophageal junction. The bleeding was brought under control. However, the release of a large amount of blood into the gastrointestinal tract, in the presence of severe liver disease, results in the production of toxins that produce a state of delirium termed hepatic encephalopathy. Dr Storey confirmed that this is a life threatening condition which saw Mr McIntosh progress into multi-organ failure.

The cause of death was determined as:

1(a) gastrointestinal haemorrhage; due to or as a consequence of
1(b) oesophageal varices; due to or as a consequence of
1(c) hepatocellular carcinoma with portal vein thrombosis; due to or as a consequence of
1(d) cirrhosis of the liver.

Investigation findings

None of the other inmates at the AGCC provided information to the investigating officer suggesting foul play or that there was any deficiency or inappropriateness in the treatment received by Mr McIntosh while in custody.

The examination of Mr McIntosh's body and his room at the PAH and the AGCC revealed no signs of violence.

The CSIU investigation into Mr McIntosh's death did not lead to any suspicion that his death was a result of anything other than natural causes.

Treatment of prisoners with cirrhosis of the liver

Associate Professor Graeme Macdonald is a Senior Staff Specialist in the Department of Hepatology and Gastroenterology at the PAH. His clinical practice is almost exclusively in liver disease. He was the treating doctor for Mr McIntosh once admitted to the PAH on 25 May 2013.

Dr Macdonald's evidence at the inquest was that even if Mr McIntosh had not had the major upper gastrointestinal haemorrhage, his prognosis would have been very poor from the large hepatocellular carcinoma. Dr Macdonald agreed that the overall standard of care provided to Mr McIntosh was reasonable, but raised the issue of the appropriate management of prisoners with chronic liver disease. He opined that the:

> *standard of care for patients with cirrhosis in the community would be six monthly review with ultrasounds looking for small hepatocellular carcinomas (which are potentially amenable to curative therapy), and monitoring for other complications of chronic liver disease such as oesophageal varices.*

Dr Macdonald gave evidence that there is a higher prevalence of viral hepatitis B and C in the prison population compared to the general population because of the link between injection drug use and criminal activity preceding incarceration. Combined with a higher prevalence of hazardous alcohol consumption in the prison population before incarceration, there is likely a higher prevalence of cirrhosis in prisoners and therefore a greater risk of developing life-threatening complications such as those Mr McIntosh had, specifically hepatocellular carcinoma, hepatic decompensation and oesophageal varices.

Dr Macdonald referred to Mr McIntosh's admission to AGCC in May 2012, and the blood tests that were conducted at that time which showed raised liver enzymes. Further, the results showed quite a low serum albumin. Dr Macdonald opined that, generally speaking, these results are subtle flags for liver disease and should provoke some further investigation.

I was also assisted at the inquest by an independent general practitioner, Dr Brian Kable, who provided an opinion on the standard of care at the request of AGCC. Dr Kable provided evidence that from April 1999 to August 2002, Mr McIntosh's liver function tests were elevated but stable. He opined that having hepatitis C and chronic liver disease did not necessarily lead to the conclusion that Mr McIntosh had cirrhosis.

Dr Kable pointed out that it was only in May 2012 that Mr McIntosh was found to have a palpable abdomen. There was no associated stigmata of chronic liver disease. An enlarged liver does not of itself indicate cirrhosis, and can be a result of other factors such as a fatty liver. In the absence of any other secondary problems, Dr Kable confirmed that it did not warrant any other investigation at that point.

Mr McIntosh did not have any overt complications of his liver disease and hepatitis C infection until his terminal event. Dr Kable noted that this was not uncommon in chronic liver disease cases. He gave evidence that the standard of care provided to Mr McIntosh was consistent with community standards. He was referred to specialist care appropriately after the symptoms presented. There was nothing in his presentations before that might have prompted referral.

Conclusions

I conclude that Mr McIntosh died from natural causes. I find that none of the correctional officers or inmates at the AGCC caused or contributed to his death.

I am satisfied that Mr McIntosh was given appropriate medical care by staff at the PAH and AGCC. His death could not have reasonably been prevented. It cannot be definitively said that Mr McIntosh's cirrhosis was detectable at the time of his gallbladder surgery in 2003.

Although the surgical notes from that time suggest that the surgeon considered the liver to be cirrhotic, there is no evidence of this diagnosis being

communicated to Mr McIntosh. Neither is there any evidence that Mr McIntosh was aware of this diagnosis or that he communicated it to prison staff.

It is a well-recognised 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 at the inquest established the adequacy of the medical care provided to Mr McIntosh when measured against this benchmark.

Findings required by s. 45

I am required to find, as far as is possible, the medical cause of death, who the deceased person was and when, where and how he came by his death. As a result of considering all of the material contained in the exhibits, I am able to make the following findings:

Identity of the deceased – The deceased person was Robert Dennis McIntosh.

How he died - Mr McIntosh died at the Princess Alexandra Hospital after a 5 day admission relating to worsening chronic liver disease.

Place of death – He died at Brisbane in Queensland.

Date of death – He died on 29 May 2013.

Cause of death – Mr McIntosh's medical cause of death was:
1(a) gastrointestinal haemorrhage;
1(b) oesophageal varices;
1(c) hepatocellular carcinoma with portal vein thrombosis;
1(d) cirrhosis of the liver.

Comments and recommendations

Section 46, insofar as it is relevant to this matter, provides that a coroner may comment on anything connected with a death that relates to public health or safety, the administration of justice or ways to prevent deaths from happening in similar circumstances in the future.

In this matter the adequacy of the medical care afforded to Mr McIntosh was examined by Dr Macdonald and Dr Kable. While there was some disagreement about whether subtle markers of the presence of liver disease should have been picked up earlier, it was agreed that the overall standard of care provided to Mr McIntosh by general practitioners was appropriate. I accept that evidence.

I was advised by AGCC that it has implemented a number of enhancements that will assist in the identification of prisoners with cirrhosis. It now employs a qualified nurse practitioner with a special interest in liver disease, particularly hepatitis C infection. Since Mr McIntosh's death there has also been increased

usage of telemedicine facilities with weekly clinics with the PAH, enabling specialists at the PAH to consult with inmates at AGCC via videoconference. Nursing staff from AGCC have also participated in professional development in relation to end-stage liver disease, and the diagnosis and treatment of hepatitis C in prison settings.

The Fourth National Hepatitis C Strategy 2014-2017[1] indicates that at the end of 2012, an estimated 230,000 people were living with chronic hepatitis C infection in Australia. One third of these have moderate to severe liver disease and the vast majority remain untreated. The burden of liver disease caused by the hepatitis C virus, including cirrhosis, liver cancer, liver failure and the potential need for liver transplant, is continuing to rise. Chronic hepatitis C was estimated to be the underlying cause of liver disease in 22 per cent of liver transplants in 2012.

The National Strategy also explains that deaths from primary liver cancer in Australia are rising faster than for any other type of cancer, having tripled between 1982 and 2007. Untreated hepatitis C and B infections are the major reason for this increase in mortality.

The House of Representatives Standing Committee on Health is currently conducting an Inquiry into hepatitis C in Australia.[2] Included in the Committee's terms of reference is an examination of hepatitis C early testing and treatment options available through prisons. The Committee's background material notes that in 2014, Australia had over 33,000 people living in custodial settings. It is estimated that up to 50% of male prisoners are hepatitis C positive, while over two thirds of female prisoners are living with a chronic hepatitis C infection.

Dr Macdonald's evidence was that the standard treatment for hepatitis C has been medication such as interferon, which has significant neuropsychiatric side effects. New, but potentially costly treatments, are becoming available which would enable a much higher percentage of prisoners to be cured of hepatitis C by taking a short course of direct acting antiviral medication with few side effects. There are also newer non-invasive ways of testing for cirrhosis such as portable Fibroscan machines, which could be used in prison settings. Inmates currently have to be transported to a hospital with these facilities in order to be diagnosed.

It was agreed by those represented at the inquest that given the large number of prisoners with hepatitis, and the high turnover of prisoners, the primary issue from a death prevention perspective is the need for effective mechanisms to identify, manage and treat prisoners with cirrhosis, as well as those with hepatitis B and C. This could be improved in all prisons throughout Queensland. The issues include:

- Current resourcing challenges associated with the provision of health care in correctional centres;
- All treatment is currently voluntary;

[1] http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-bbvs-hepc#2

[2] http://www.aph.gov.au/Parliamentary_Business/Committees/House/Health/Hepatitis_C_in_Australia

- Training of visiting medical officers in relation to hepatitis treatment options; and
- Costs and logistics of transporting prisoners to tertiary hospitals.

I was advised that a protocol for the management of viral hepatitis in offender health services was introduced by Queensland Health in April 2013 but has since been rescinded.[3] The protocol described the mandatory steps for supporting the diagnosis and clinical management of offenders with hepatitis in prison settings. WMHHS indicated that the Prison Health Service's management of prisoners with hepatitis in the facilities that it works with is generally consistent with the protocol.

I accept the submissions of counsel assisting and the WMHHS that an appropriate recommendation at this time to address the identified issues is as follows:

Recommendation
I recommend that the Queensland Government convene a working party comprised of representatives from Queensland Health, Queensland Corrective Services, the West Moreton Hospital and Health Service, the Metro South Hospital and Health Service, AGCC and other correctional facilities to:

1. *Examine how the identification and management of patients with hepatitis and cirrhosis in correctional settings could be improved; and*
2. *Review the former 'Protocol for the management of viral hepatitis in offender health services' in consultation with appropriate experts, for distribution to all Hospital and Health Services.*

I close the inquest.

Terry Ryan
State Coroner
Brisbane
12 June 2015

[3] www.health.qld.gov.au/directives/docs/ptl/.../qh-hsdptl-029-4.pdf