QUEENSLAND COURTS

OFFICE OF THE STATE CORONER

FINDINGS OF INQUEST

CITATION:	**Inquest into the death of Kathleen Anne Conlan**
TITLE OF COURT:	Coroner's Court
JURISDICTION:	Brisbane
FILE NO(s):	COR 2557/03
DELIVERED ON:	10 June 2011
DELIVERED AT:	Brisbane
HEARING DATE(s):	18 April 2011
FINDINGS OF:	Mr Michael Barnes, State Coroner
CATCHWORDS:	CORONERS: death in a medical setting;
REPRESENTATION:	
Counsel Assisting:	Ms Alana Martens
Gold Coast Hospital:	Ms Margaret Maloney, Crown Law

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Section 45 of the *Coroners Act 2003* provides that when an inquest is held into a death, the coroner's written findings must be given to the family of the person who died and to each of the persons or organisations granted leave to appear at the inquest. These are my findings in relation to the death of Mrs Kathleen Anne Conlan. These findings will be distributed in accordance with the requirements of the Act and placed on the website of the Office of the State Coroner.

Introduction

Mrs Kathleen Anne Conlan was 70 years old when she died at the Gold Coast Hospital ("hospital") on 28 November 2003. She had been admitted to hospital two days earlier with severe epigastric abdominal pain. During her admission, her pain eased and on the morning of 28 November it was determined Mrs Conlan was well enough to be discharged.

During the process of Mrs Conlan being discharged, it was recognised that blood test results indicated her white cell count had risen and it was decided she should return to the ward.

A few hours later, Mrs Conlan was found on the floor of the ward, unresponsive. A Code Blue was called and a number of doctors attended however resuscitation efforts were unsuccessful and Mrs Conlan was declared deceased at 1538.

These findings:-

- confirm the identity of the deceased person;
- describe the circumstances of her death;
- confirm the time and place of her deaths;
- establish the medical cause of her death; and
- examine the adequacy and appropriateness of the medical treatment provided to Mrs Conlan.

As this is an inquest and not a criminal or civil trial, these findings will not seek to lay blame or suggest anyone has been guilty of a criminal offence or is civilly liable for the death.

Re-opening

As already mentioned, Mrs Conlan died on 28 November 2003. Her death was reported to the police and the Coroner on 1 December 2003, the proclamation date for the *Coroners Act 2003*. Her death was reported under both the *Coroners Act 1958* ("the 1958 Act") and the *Coroners Act 2003* ("the Act").

Coroner Batts convened an inquest and elected to hold the inquest under the 1958 Act. She heard evidence on 3 March, 21 and 22 November 2005.

Coroner Batts received approximately 25 exhibits and heard evidence from all of the main medical practitioners who were involved in Mrs Conlan's care. She also heard evidence from Dr Callaway who provided an independent assessment of the treatment provided by the hospital to Mrs Conlan.

Unfortunately, the government medical officer who performed the post mortem examination on Mrs Conlan's body, Dr Thomas Levy, did not give evidence at the inquest. For some unexplained reason efforts were made by those assisting the coroner to locate a Dr K Levy, not a Dr T Levy and hence it was reported to the coroner that the doctor who had undertaken the autopsy could not be located.

Coroner Batts delivered her findings on 19 December 2006.

She found:
"Kathleen Anne Conlan died on 28 November 2003 at 3.26pm in the Gold Coast Hospital.

Mrs Conlan was admitted to the Gold Coast Hospital on 26 November 2003 with severe epigastric pain and nausea. Over the period she was in hospital she was attended principally by Drs Lawn, Hogan and Washara. Tests include an abdominal CT scan were carried out. No diagnosis was ever made and on the morning of 28 November 2003 she was thought to be stable enough to be discharged. She stated a wish to go home. It was considered that she should have a follow-up gastroscopy and colonoscopy in her home town of Wagga.

She was in fact leaving the hospital with her husband when re-called due to Dr Hogan noting a vastly increased white blood cell count in particular from her morning blood tests.

She was re-admitted.

Dr Rutherford, the consultant and Dr Washaya the surgical registrar were in surgery that day.

At around 2pm Mrs Conlan started vomiting.

At 3.20pm Mrs Conlan was found collapsed on the floor and unresponsive. A Code Blue was called and the intensive care registrar, the medical registrar and the emergency registrar attended. Resuscitation attempts failed.

A Life Extinct Certificate was issued by Dr Ben Close on 1 December 2003. (Exhibit 1)

A Post Mortem was performed by Dr Ken Levy (sic).

Exhibit 2 in the proceedings is the Post Mortem Examination Certificate.

Exhibit 3 is the Post Mortem Examination Report.

The Certificate states that Kathleen Anne Conlan aged 70 years died on 28 November 2003 at the Gold Coast Hospital.

Dr Ken Levy states that the cause of death was cardiac arrest due to or as a consequence of gastric haemorrhage, coronary artery disease being noted as another significant condition.

Dr Levy had retired by the commencement of this Inquest and despite several and extensive enquiries he was unable to be located to be questioned during the inquest.

I make the following formal findings:

1. *The identity of the deceased was Kathleen Anne CONLAN.*
2. *Kathleen Anne CONLAN was born on 1 July 1933.*
3. *Her last known address was 9 Gardenia Street, WAGGA WAGGA NSW.*
4. *At the date of her death her occupation was that of a retired person.*
5. *On the state of the evidence and in particular the brevity of Dr Levy's post mortem report, the inability of this inquest to question Dr Levy and the opinions of other medical doctors involved querying the stated cause of death, I am unable to make a finding as to the formal cause of death.*

I do not consider the evidence which has been heard has been sufficient to put any person or persons upon any trial. No person will be committed for trial.

Pursuant to s43 of the Act I do propose to make two recommendations.

Firstly at the time of Mrs Conlan's death inexperience and lack of education it seems to me led to a significant and unacceptable delay in Mrs Conlan's death being reported to the Coroner with immediate and in some respects ongoing distress to Mr Conlan in particular.

I recommend that the Hospital ensure that all doctors and staff receive adequate education so that their knowledge and understanding of their obligations under the Coroners Act is enhanced.

Another aspect of concern which arose during this inquest was the attendance, or lack of attendance of a consultant upon Mrs Conlan.

It seems desirable that Queensland health consider a policy that specialist medical consultants actually see the patients who are under their care within a certain timeframe.

This would likely improve service delivery in the health system."

Mr Conlan was dissatisfied with these findings. He believed the hospital had failed to diagnose the gastric haemorrhage in a sufficiently timely manner and had they done so his wife may not have died.

As a result of Mr Conlan's continuing concerns, I instituted efforts to locate Dr Levy. When his correct first name was used, he was easily found. Mr Conlan was invited to make an application to have the inquest re-opened. He did not do so, however I came to the view that new evidence detailed below cast doubt on some of the previous findings and accordingly it was appropriate the inquest be re-opened pursuant to s50A of the Act.

The new evidence was contained in a statement from Dr Levy and a review of the medical evidence by an experienced forensic pathologist, Dr Dianne Little.

I accepted all of the evidence from the inquest held before Coroner Batts, in addition to the transcript of proceedings as evidence in this inquest pursuant to section 50A(2) of the Act.

The evidence

I turn now to the evidence. Of course I can not summarise all of the information contained in the exhibits and transcript but I consider it appropriate to record in these reasons the evidence I believe is necessary to understand the findings I have made.

Relevant medical history

Mrs Conlan had a cholecystectomy in 1964 and had been treated for haemorrihoids in 1970. She had ischaemic heart disease and she had a coronary artery bypass graft in 1993.

Admission to Gold Coast Hospital

At approximately 6:09am on 26 November 2003, the Queensland Ambulance Service (QAS) were contacted to attend to Mrs Conlan. Intensive Care Paramedic Craig McGeechan and Student Paramedic Kerryn Bryant were dispatched and arrived at the caravan park where the Conlan's were staying at approximately 6:20.

The history obtained from Mrs Conlan by the paramedics was that she had awoken at 6:00 and after going to the toilet experienced severe epigastric pain which she described as sharp and stabbing. She also indicated she felt nauseated.

When the paramedics arrived they observed Mrs Conlan sitting on the bed doubled over crying. Her Glasgow coma scale was noted to be 15 with no motor or sensory abnormalities noted. She had trouble talking due to her pain however the paramedics did not observe any evidence of cyanosis or breathing difficulties.

Mrs Conlan was given several doses of morphine for pain relief prior to being transported to the hospital. She arrived there at 6:51.

Mr Conlan indicated during the first inquest that the paramedics had told him Mrs Conlan may have had an ulcer, although there is no indication of this in the QAS records.

Mrs Conlan was examined by Resident Medical Officer, Dr Lawn, in the Emergency Department. It was noted she complained of epigastric pain that had started at 6:00am and she was nauseous but could not vomit. She also complained of dry retching.

Mrs Conlan advised Dr Lawn that when she urinated that morning it was normal and her last bowel motion was on 22 November at 1800. She said she did not have any constipation, diarrhoea, blood or mucus in the motion but pain was present all the time.

Mrs Conlan provided Dr Lawn with a detailed medical and surgical history. She also provided information regarding her current medications. These included Atorvastatin, Atenolol, Feledopine, Aspirin, Calcitriol, Slow-K, Temazepan and Oroxine.

Her temperature was 35.9 Celsius, blood pressure 188/73, oxygen saturation 96%, pulse rate of 65 and respiration rate of 18.

On examination Mrs Conlan's heart had a loud systolic murmur. Her chest indicated bronchial breath sounds. Dr Lawn was of opinion Mrs Conlan may have left lower lobe pneumonia. He examined her abdomen and found it was soft, non tender with a palpable liver edge.

Dr Lawn ordered x-rays and bloods tests. The chest and abdominal x-rays were normal. Relevantly, Mrs Conlan's haemoglobin was 157 and her white cell count was 17.6. These results would indicate Mrs Conlan was not bleeding internally at the time of these blood tests.

As per normal practice, Dr Lawn discussed his examination of Mrs Conlan with the surgical registrar, Dr Washaya, who performed a further assessment of Mrs Conlan.

At approximately 10:00, Mrs Conlan was assessed by Dr Washaya. She gave a history as set out above. Dr Washaya questioned Mrs Conlan as to whether there had been a change in how her heart was beating, whether there were any urinary symptoms, vomiting of blood or passing blood from the anus. Mrs Conlan responded in the negative to each of these inquiries.

Dr Washaya was of the view Mrs Conlan's examination results were within normal limits. Her pulse rate was 64 and blood pressure 170/70. Mrs Conlan's abdomen was soft and not tender and her chest was clinically clear.

Dr Washaya considered the possible differential diagnoses of Mrs Conlan's abdominal pain were pyrexia of unknown origin (for example cholitis), pancreatitis, non-occlusive mesenteric ischaemia and perforation. Dr Washaya gave evidence he also considered peptic ulcer disease that could have been pre-existing or a new ulcer without any evidence of bleeding.

Dr Washaya decided Mrs Conlan should be admitted to the surgical unit for observation. Accordingly, she was admitted under the care of the consultant in charge of the surgical team, Dr Rutherford. He did not personally review Mrs Conlan at any time during her admission. Dr Rutherford received information regarding Mrs Conlan from Dr Washaya and his intern, Dr Hogan.

Dr Washaya ordered the following for Mrs Conlan:

- Nil by mouth
- Intravenous fluids
- Nasogastric tube if vomiting
- Repeat blood tests in six hours
- Arterial blood gases
- CT scan of abdomen
- If CT negative – consider upper gastrointestinal scope
- Observations 4 hourly – blood pressure, pulse and temperature

A concern was raised by Mrs Conlan's family that Mrs Conlan's symptoms may have been masked by the amount of morphine administered. Dr Washaya agreed Mrs Conlan was pain free when he assessed her and this was likely to have been from the effects of morphine. However Dr Washaya indicated during the course of the day, when the effects of the morphine given by the paramedics would have worn off, Mrs Conlan still did not have abdominal pain.

Mrs Conlan's medical notes record at 11:10, her bowels opened and a note is recorded "large offensive". Dr Washaya stated during evidence he recalled Mrs Conlan had a loose bowel motion but there was no blood. It is uncertain whether he was referring to Mrs Conlan's bowel motion at 10:00 or 11:10.

Mrs Conlan received a CT scan at 11:30. Dr Snow, a consultant radiologist, performed the scan. He noted Mrs Conlan's small bowel was not dilated which indicated it was not obstructed. There were also no signs Mrs Conlan's bowel was ischaemic or had perforated.

In evidence Dr Snow indicated the only abnormality detected by the scan was that the small bowel contained a lot of fluid and one possible cause for this is gastroenteritis. A CT scan is not able to provide information on what this fluid

might be. It was not very useful for detecting gastrointestinal haemorrhage. Dr Snow conceded that from its appearance the fluid could have been blood. However Mrs Conlan's white cell count and haemoglobin readings were normal which would suggest the fluid was unlikely to have been blood.

Dr Washaya discussed Mrs Conlan's case with Dr Rutherford. Dr Rutherford was aware the cause of Mrs Conlan's abdominal pain was uncertain, the CT was non specific and Mrs Conlan's white cell count was raised. Dr Rutherford agreed with Dr Washaya's plan to continue with conservative management.

Mrs Conlan's medical records noted at 12:40 her bowels opened. There was a note the contents were "watery" and Mrs Conlan was "incontinent".

Acting Clinical Nurse ("ACN") Bradsworth recorded that Mrs Conlan vomited twice and was offered Maxalon to try and stop the nausea however this was not effective. At 17:45 Mrs Conlan was given Tropisetron for the same symptoms and it seems it was effective. Because of the diarrhoea ACN Bradshaw was unable to keep an accurate fluid balance sheet.

At 19:40 Mrs Conlan was given Buscopan for the pain and cramping associated with her diarrhoea which was effective. During ACN Bradshaw's shift, Mrs Conlan was mobile around the ward and self caring. As at 22:25, Mrs Conlan had not made any further complaints concerning pain.

Dr Washaya and Dr Hogan reviewed Mrs Conlan during ward rounds the following morning. Dr Hogan recalled Mrs Conlan reporting she had had a comfortable night, had not had any bowel motion that day, her observations were okay and her abdomen was soft and non-tender. Mrs Conlan's management plan was she was allowed to drink clear fluids, sit out of bed/mobilise and have a bowl diet if she was tolerating clear fluids. Dr Washaya considered there was either no progress in Mrs Conlan's symptoms or she was recovering from whatever had caused them.

Dr Rutherford was contacted by Dr Washaya at some point on Thursday and advised everything was status quo, Mrs Conlan appeared to be settling, she did not complain of pain and her clinical examination was unremarkable.

Registered Nurse ("RN") Simpson's notes indicate Mrs Conlan tolerated a bowl diet for breakfast. This would normally include jelly, juice and black tea or coffee.

At 08:30 Mrs Conlan was given Metoclopramide to relieve nausea. At 11:30 Mrs Conlan was given Panadol for pain relief.

RN Simpson recorded at 12:00 that Mrs Conlan had tolerated a bowl diet and a fluid diet was ordered for lunch.

At 13:00, RN Simpson performed a full set of observations for Mrs Conlan consisting of temperature, pulse rate, respiration rate, blood pressure and oxygen saturations. They were all within normal limits.

Blood tests were taken at 14:50. Relevantly, Mrs Conlan's haemoglobin was found to be 141 and her white cell count was 26.1 which would indicate Mrs Conlan was not bleeding at this time.

Dr Washaya and Dr Hogan reviewed Mrs Conlan again in the afternoon. Mrs Conlan reported no abdominal pain, no vomiting and she was tolerating oral fluids. She reported one loose bowel motion. Dr Hogan noted Mrs Conlan's c-reactive protein was elevated at 153. Dr Washaya considered the most likely diagnosis at this time was gastroenteritis. The management plan was to "continue".

At 19:45 Mrs Conlan complained of severe abdominal pain. Dr Musgrave reviewed her and ordered Buscopan to relieve the abdominal pain. Mrs Conlan told Clinical Nurse ("CN") Moore her pain had settled with the Buscopan and there were no further complaints up until 23:00.

Discharge and re-admission

CN Moore believes Mrs Conlan was seen by Dr Rutherford's team (Dr Washaya and Dr Hogan) at 8:00 on 28 November, two days after she was admitted, and complained of indigestion. The doctors ordered she be given Mylanta (20g) and this was done. CN Moore recalls during the review Mrs Conlan requesting to go home. The team discussed this request and it was determined follow-up could be done at home in NSW.

CN Moore recalls Mrs Conlan tolerating a full diet that morning for breakfast. This would normally consist of cereal, a bread roll, a cup of tea, fruit juice and perhaps a piece of fruit.

Dr Washaya recalled he reviewed Mrs Conlan between 7:30 and 8:30. He believed Mrs Conlan was tolerating a full diet, was pain free and keen to go home. Dr Washaya recalls Mrs Conlan initiating the discussion about being discharged. Dr Washaya spoke to her about not having a clear clinical diagnosis and she replied "*but I feel better. I'm well, I want to go home*".

Dr Washaya advised Mrs Conlan that because a firm diagnosis of the abdominal pain had not been identified, she would need to have a colonoscopy/gastroscopy as an outpatient. Dr Washaya decided to discharge Mrs Conlan because of her clinical progress during her admission and because he did not observe any clinical indication she was in any distress or her symptoms worsening.

Dr Washaya requested Dr Hogan to undertake a blood test before Mrs Conlan was discharged.

The medical records note at 10:15 Mrs Conlan tolerated a full diet.

The records also indicate a form titled “admission/discharge summary” was in Mrs Conlan’s medical records. This form was addressed to Dr Harvey-Smith, a medical practitioner in Wagga Wagga (where Mrs Conlan resided), however the remainder of the document was not completed. Mr Conlan indicated Mrs Conlan did not receive any discharge documentation or referral letter to her general practitioner.

Enrolled Nurse Delaney was working in the Discharge Lounge on 28 November. The records indicate Mrs Conlan arrived there at 10:15 and left at 11:20. EN Delaney recalled that Mrs Conlan did not exhibit any symptoms and did not express any concerns. She said Mrs Conlan appeared happy to be going home.

EN Delaney believes after Mrs Conlan left the Discharge Lounge a phone call was received from the ward and the ward was advised Mrs Conlan had left at approximately 11:20.

At about this time, Dr Hogan received the results of Mrs Conlan’s blood test. The blood sample was taken at 08:30 and registered at 09:30. It was unclear at exactly what time these results became available to Dr Hogan. Relevantly, Mrs Conlan’s haemoglobin was 150, white cell count was 27.9 and c-reactive protein 388 which would indicate Mrs Conlan was not bleeding internally at the time the blood sample was taken (i.e., at 08:30).

It would seem Dr Hogan discussed these results with Dr Washaya and Dr Rutherford (or perhaps only Dr Rutherford) who were in theatre. Dr Rutherford indicated Mrs Conlan should not be discharged because there was no diagnosis and her white cell count was rising which indicated some infective process was occurring. Dr Rutherford directed that Mrs Conlan be returned to the ward. Dr Rutherford was not provided with any further information regarding Mrs Conlan’s condition until after her collapse.

Dr Hogan went to locate Mrs Conlan. He found her outside in the passenger seat of a vehicle, intending to leave. Dr Hogan recalls Mrs Conlan was reluctant to be re-admitted. However after discussing the matter for some time, she agreed to return to the surgical ward. Dr Hogan indicated it was Dr Rutherford’s decision for Mrs Conlan to return directly to the ward (rather than being admitted through the Emergency Department) however at the time Dr Rutherford believed Mrs Conlan was in the discharge lounge and had not left the hospital. Dr Hogan recalls Mrs Conlan looking unwell and appearing to have abdominal pain.

As Mrs Conlan was unwell, Dr Hogan elected to do a blood gas, chest and abdominal x-ray to check Mrs Conlan’s metabolic status and haemoglobin and to check for any chest or abdominal pathology. ACN Bradshaw took Mrs Conlan’s

observations at 12:15 while the doctor was taking blood. These observations were recorded as: respiration - 20 (which Dr Hogan agreed was significantly high at this time); pulse – 98; temperature - 36.8; blood pressure - 132/74; and oxygen saturation - 93%.

At approximately 14:00 Mrs Conlan was returning from the x-ray unit when she began to vomit very small amounts of dark brown fluid. This looked like spit with coffee grounds. CN Moore requested Mrs Conlan to spit into a bowl so the amount could be monitored.

Dr Hogan wrote retrospective notes at 14:20. As his notes are retrospective, it is uncertain at exactly what time his assessment occurred however they would appear to be a record of his observations and interactions with Mrs Conlan from the time she returned to the surgical ward until 14:20.

Dr Hogan noted the following:

- Mrs Conlan complained of epigastric pain which was constant and severe
- She denied nausea and dysphagia
- Bowels not open since yesterday morning
- No flatus
- Loss of appetite (++)
- Mrs Conlan began vomiting small volumes of dark brown, watery fluid containing black flecks of solid material but no frank blood. This onset at approximately 14:00.
- No cough or chest pain
- No dysuria or frequency [this is discomfort associated with urination or frequent urination]
- Mild shortness of breath over the last few days

On examination, he observed Mrs Conlan as being

- Restless and uncomfortable
- Pulse - 100, temperature - 36.6 and oxygen saturation - 93% on room air .
- Her abdomen was soft and distended, there was mild lower abdominal tenderness
- There were scant bowel sounds present
- On examination of her chest good air entry and bibasal crepitations were noted
- Heart sounds dual with a systolic ejection and murmur
- Mrs Conlan's tongue was dry
- Jugular venous pressure was not raised
- Peripheries cool
- Capillary return was less than 2 seconds
- Chest x-ray showed diffuse bibasal opacity (likely secondary to body habitus)
- No acute changes were noted on the chest x-ray

- Arterial blood gas
- Oxygen saturation was 86%
- pH was 7.468
- K+ was 2.8
- Hb 131

At 14:00 Mrs Conlan's pO2 was 49 and her oxygen saturation was 86. At the inquest, Dr Hogan was unable to recall whether this sample was an arterial or venous sample. He indicated if this sample was an arterial sample then the reading is significant.

Dr Hogan's differential diagnoses were:

- Infective or inflammatory process
- Query: upper gastrointestinal bleed
- Alkalosis
- Hypokalaemia

Dr Hogan noted as his plan:

- The clinical findings were discussed with Dr Washaya while he was assisting surgeries in the operating theatre. Dr Rutherford was not present during this discussion. Dr Washaya wished to further discuss the case with Dr Rutherford.
- In the meantime the following were arranged:
    - Blood cultures
    - Urine samples for testing
    - Urinary catheter
    - Patient made nil by mouth and given IV fluids.

Dr Washaya recalled Dr Hogan advising that Mrs Conlan was spitting blood and he was concerned with this. He believes Dr Hogan had a copy of Mrs Conlan's blood test results however he did not recall whether he was provided with the blood gas results. Dr Washaya believes Dr Hogan presented the overall clinical picture. As a result of this information, Dr Washaya determined he would need to review Mrs Conlan. Dr Washaya indicated in evidence he was aware he needed to review Mrs Conlan in the ward as soon as he could.

Dr Washaya indicated during evidence that Dr Hogan was able to approach other registrars within the hospital if he needed assistance. He was of the view he would have needed Dr Rutherford's permission to leave the operating theatre. Dr Rutherford indicated during evidence that Dr Washaya could have left the operating theatre if he was of the opinion a patient was so unwell they required his immediate attendance.

At 14:45, Mrs Conlan was given IVI Maxolon for nausea/vomiting.

According to nurses, at approximately 15:10, Mrs Conlan was found by staff unresponsive, collapsed on the floor with copious vomitus on and around her. Some staff indicated they had observed some blood around or on Mrs Conlan. A Code Blue was called and a number of doctors attended.

Dr Hogan was present on the ward at 15:20 when Mrs Conlan was heard collapsing to the floor. Dr Hogan observed there were obvious signs of an upper gastrointestinal bleed as there was a large amount of dark/black fluid on the floor. Dr Walsham (one of the medical officers to respond to the Code Blue) received the Code Blue page at 15:26. Resuscitation attempts commenced however they were ultimately unsuccessful and Mrs Conlan was pronounced deceased at 15:38.

Dr Washaya had returned to the ward when Mrs Conlan had collapsed. He observed vomit that looked like coffee grounds material. He says he saw no frank blood. Dr Walsham observed frank blood and stomach contents (vomitus).

Dr Walsham indicated Mrs Conlan had electro mechanical disassociation which indicated the electrical signal was going to Mrs Conlan's heart however her heart muscle was not pumping effectively. He indicated the causes of this could be a massive heart attack, pulmonary embolus or pneumothorax.

The autopsy

A post mortem examination on the body of Mrs Conlan was conducted by Dr Thomas Levy on 2 December 2003. He completed a Form 10 post-mortem examination report under the 1958 Act.

Dr Levy found that Mrs Conlan's lungs had oedematis which indicated congestive heart failure. Dr Levy also noted both lungs contained pus exudate indicating pneumitis.

Dr Levy also noted that he observed coronary atheromatosis and extensive scarring of Mrs Conlan's pericardium from previous surgery.

Dr Levy's findings under the section "stomach and contents" was that Mrs Conlan's stomach was filled with blood and there was an erosion of gastric mucosa into the blood vessels causing gastric haemorrhage.

Dr Levy was of the opinion Mrs Conlan's cause of death was:

1.(a) Cardiac Arrest due to or as a consequence of
1.(b) Gastric haemorrhage
And that coronary artery disease was a significant condition contributing to the death but not related to the disease or condition causing Mrs Conlan's death.

Other medical evidence

Dr Washaya and Dr Callaway (an internal medicine specialist and senior lecturer at the University of Queensland who was engaged to provide an independent report to Coroner Batts) gave evidence regarding the typical presentation of a patient with a gastric haemorrhage.

They agreed it included:-

- vomiting blood or bleeding from their rectum;
- low blood pressure;
- high pulse rate;
- low (or dropping) levels of haemoglobin; and/or
- melaena (black or "tarry" faeces).

Dr Lawn, the doctor who saw Mrs Conlan when she was first admitted to the hospital on 26 November, was of the view Mrs Conlan was not bleeding at the time she was admitted to hospital. He indicated if she had been suffering from a gastric haemorrhage her blood pressure would have been dropping, her heart rate would have been increasing and she probably would have vomited blood. Dr Lawn also indicated he would have expected Mrs Conlan's haemoglobin level to be lower.

Dr Washaya and Dr Calloway were of the opinion Mrs Conlan did not display any symptoms of a gastric haemorrhage at the time of her admission.

Dr Calloway was of the opinion Dr Lawn requested suitable baseline tests and his examination of Mrs Conlan and subsequent referral to the surgical registrar was appropriate.

There would appear to have been some suggestion by Mrs Conlan's family that she had a very offensive bowel motion. Mrs Conlan's bowel movements were charted by hospital staff. There is no indication in these records that in any of Mrs Conlan's bowel movements there was evidence of any blood or melaena. Dr Rutherford said melaena has a very distinctive smell and staff would have noted it and reacted had this occurred.

Dr Rutherford gave evidence the CT scan was undertaken for a variety of reasons as part of the investigation to determine a diagnosis for Mrs Conlan's condition. He was of the opinion the scan would identify pneumonia or a pulmonary oedema (which was negative in the case of Mrs Conlan) however it would not identify a stomach ulcer or perforation.

At the inquest a number of medical professionals was questioned by Mrs Conlan's family about whether further investigations should have been completed to identify whether there was an ulcer or gastric haemorrhage. Dr Rutherford was of the opinion Mrs Conlan's presentation (in particular her raised white cell count) did not fit with a gastric ulcer.

Dr Callaway indicated it was logical, when the CT scan was negative, to conduct further examination to determine whether an ulcer was present. However, she indicated it was equally logical for Mrs Conlan to be admitted for observation. Dr Callaway was of the view the significant diarrhoea and nausea from which Mrs Conlan suffered during her admission were not features of gastric erosion or gastric disease. This view was confirmed when those symptoms settled after she abstained from food.

Dr Washaya was initially of the opinion Mrs Conlan did not have gastroenteritis as she had severe epigastric pain. However, as Mrs Conlan's abdominal pain subsided and she had loose bowel motions, Dr Washaya considered gastroenteritis as a possible working diagnosis.

Dr Calloway was of the opinion that although the diagnosis was unclear, Mrs Conlan's original presentation and development of diarrhoea and vomiting and the improvement of these symptoms with the administration of fluids, elevated white cell count and an elevated C-reactive protein (which is a marker of inflammation) were consistent with a diagnosis of gastroenteritis. She did note while Mrs Conlan's pain was typically out of proportion for gastroenteritis, occasionally patients do have severe abdominal pain and Mrs Conlan's pain settled during her admission which was reasonably consistent with gastroenteritis.

Dr Hogan, Dr Washaya and Dr Rutherford were all of the opinion the blood tests indicated there was no internal bleeding and no indication Mrs Conlan had significant upper gastrointestinal blood loss.

Dr Withers, the Director of Surgery at the Hospital, was of the opinion the blood test results from the morning of 28 November 2003 and the results from 14:10 were not consistent with ongoing bleeding.

Dr Calloway was also of the opinion the blood test results from the morning of 28 November 2003 did not provide any evidence Mrs Conlan was bleeding. Dr Calloway was of the view the haemoglobin was very high and totally inconsistent with large amounts of blood loss. She was of the opinion there was no evidence at this stage that would allow anyone to detect significant blood loss.

Mrs Conlan's family were also concerned it was possible the medication given to Mrs Conlan may have masked her symptoms or pain. While most of the medical practitioners agreed Mrs Conlan's pain would have eased as a result of the morphine she was provided prior to arriving at the hospital, Dr Rutherford was of the opinion this would have only lasted for 3 to 4 hours. He was also of the opinion Mrs Conlan was not on any medication for the duration of her admission that would have eased severe abdominal pain. He also noted Mrs Conlan was free from pain medication for some time prior to her discharge.

Mrs Conlan was ultimately discharged without a diagnosis for her symptoms. Dr Rutherford and Dr Callaway indicated it was relatively common for a patient not to have a clear diagnosis for several days. Dr Rutherford indicated it was common for patients to be discharged without a diagnosis if the symptoms which had precipitated the admission settled.

Dr Rutherford was of the opinion it was reasonable to discharge Mrs Conlan as her pain was settling, there was a downgrading of her symptoms and she had requested to go home. He was of the view the only concern was there was no explanation for Mrs Conlan's elevated white cell count and this needed to be followed up by having an endoscopy as an outpatient.

Dr Callaway indicated in evidence that as Mrs Conlan's medical records indicated she had eaten a full breakfast, she felt well and was requesting to go home, the plan for further intensive investigation to occur as an out-patient was reasonable.

Dr Callaway was of the opinion Mrs Conlan should have been discharged with a discharge letter or summary for her to provide to her general practitioner.

Dr Washaya, Dr Rutherford and Dr Callaway all indicated that as a result of the blood gas readings at 1410, further blood gas readings should have been undertaken to determine whether the readings were accurate or whether they had been contaminated. Dr Rutherford indicated Mrs Conlan should have been placed on oxygen as a precaution until the results were confirmed. Dr Callaway was of the opinion if the readings of 86% and 49 were correct then standard practice would be to consider administering oxygen to Mrs Conlan. From all of the evidence, it does not appear Mrs Conlan was placed on oxygen. Notwithstanding, there was no evidence to suggest placing Mrs Conlan on oxygen would have prevented her deterioration.

Dr Washaya, Dr Rutherford and Dr Callaway were all of the opinion there was no evidence Mrs Conlan had a gastric haemorrhage. In particular, Dr Callaway indicated the diarrhoea, episodic nature of Mrs Conlan's pain and the significant improvement in the first day of hospitalization were not suggestive of a diagnosis of erosion of the gastric mucosa and subsequent gastric haemorrhage.

Dr Callaway was of the view Dr Hogan's assessment of Mrs Conlan following her return to the surgical ward was appropriate. She considered Dr Hogan arranged for the appropriate investigations including a chest x-ray, abdominal x-ray, arterial blood gases, blood culture, urine culture and careful fluid balance measurement to be assisted with urinary catheter insertion to be undertaken.

Dr Rutherford was of the view there was no explanation for Mrs Conlan's sudden deterioration.

There was some dispute amongst the evidence as to whether Mrs Conlan was vomiting dark blood or frank blood. There were different descriptions of the blood found with Mrs Conlan when she collapsed on the ground. Frank blood suggests rapid onset whereas dark blood indicates the blood has at least had sufficient time to mix with the stomach acids.

Dr Callaway was of the opinion the treatment of Mrs Conlan was appropriate and well documented and her death was unable to be predicted or prevented by her treating doctors. Dr Callaway was also of the opinion that appropriate resuscitation attempts were undertaken.

During the course of this inquest some doubt was cast on the earlier finding that Mrs Conlan's cause of death was as a result of a gastric haemorrhage.

Dr Walsham (the Anaesthetic Registrar who attended the Code Blue) was of the opinion that as Mrs Conlan's peritoneum and intestines were normal at the post mortem examination this would suggest the ulcer had not perforated which would imply Mrs Conlan's bowel did not contain a large amount of blood. This would suggest Mrs Conlan's bleeding was acute and recent to her death.

Dr Callaway indicated a gastric erosion into the blood vessels is typically a very acute catastrophic event which occurs very quickly, with the onset of bleeding within a couple of hours of her death. No blood was observed in Mrs Conlan's small or large intestine which is consistent with the theory of a rapid onset.

Dr Withers was of the opinion the amount of blood loss required to precipitate a cardiac arrest is substantial. She indicated in her report that a class II haemorrhage requires about 30% of the blood volume to be lost before compromise occurs.

Dr Rutherford was of the view the gastric bleeding observed at post mortem was not sufficiently significant to have caused Mrs Conlan's death. He would have expected Mrs Conlan's small and large bowel to be full of blood to account for a significant compromise of the heart. Dr Rutherford did not believe the blood in Mrs Conlan's stomach was enough to cause cardiac arrest unless Mrs Conlan's heart was already very unstable.

Dr Rutherford was of the opinion the causes of Mrs Conlan's heart failure could have been congestive heart failure, a myocardial infarct and/or pulmonary oedema.

After reviewing the post mortem examination results, Dr Rutherford was of the opinion Mrs Conlan had pneumonia which indicated there was also an infective process going on.

In 2010, Dr Levy was provided with a copy of Mrs Conlan's medical records and an entire copy of all the material considered by Coroner Batts, including a transcript of the evidence heard by her. Dr Levy provided a statement expanding upon his autopsy report.

Dr Levy indicated the pus he observed is indicative of severe infection and/or pneumonia. This normally takes a few hours to develop. Dr Levy believes this would have made it difficult for Mrs Conlan to breathe and would have placed a further burden on her heart which was compromised as a result of her coronary artery disease.

Dr Levy was aware the CT scan from 26 November did not reveal any problems with Mrs Conlan's lungs. He was of the opinion the onset of oedema and generation of the pus could be sudden and likely occurred following Mrs Conlan's CT scan. They may have precipitated Mrs Conlan's heart failure.

Dr Levy recalled Mrs Conlan's pericardium having extensive scarring. He was unable to see any evidence of myocardial infarct as a result of this scarring however he was unable to rule out the possibility of a myocardial infarct.

Dr Levy was confident he did not observe an ulcer at the post mortem examination because he would have noted this in his autopsy report. Dr Levy also does not believe Mrs Conlan's stomach ruptured as if this had occurred, her entire abdominal cavity would have been filled with exudate which would have been noted in the autopsy report.

Dr Levy believes the onset of Mrs Conlan's gastric haemorrhage was acute because he only observed red blood at the post mortem examination which means the blood was fresh and there was only blood in Mrs Conlan's stomach. Dr Levy was of the opinion that after 10 – 20 minutes following a haemorrhage, the blood seeps into the intestines and bowel.

Dr Levy agreed with the opinion of Dr Rutherford that a gastric haemorrhage would not cause death in a normal healthy person. However, he was of the view it was possible for the gastric haemorrhage to have caused Mrs Conlan's death because she was already sick with pneumonia and had coronary heart disease.

Dr Levy believed the cause of Mrs Conlan's death was either cardiac arrest or myocardial infarct and the cause of her heart failure was the blood loss from the gastric haemorrhage and pneumonia combined on a background of coronary artery disease.

Dr Little, a forensic pathologist, reviewed a copy of Mrs Conlan's medical records and a copy of all the material considered by Coroner Batts, including a transcript of the evidence and Dr Levy's additional statement.

She was of the opinion it was likely any atherosclerosis (degenerative narrowing) of Mrs Conlan's native coronary arteries would have progressed over the 10 years since her bypass surgery. It was also possible one or more of the bypass grafts may have become partially or totally blocked over that period.

She also noted Mrs Conlan had a history of hypertension (high blood pressure) and that individuals with hypertension often have enlarged hearts, sometimes with fine scarring (interstitial fibrosis) in the heart muscle. Such hearts can increase the risk of sudden cardiac death as they are more susceptible to development of arrhythmias and/or failure than normal hearts.

Dr Little commented there was evidence Mrs Conlan had symptoms of indigestion on the day of her discharge and this may have in fact been pain of cardiac origin.

Dr Little was unable to comment on the blood present in the stomach as there was no description of the amount of the blood found. She indicated that depending on the amount of blood present in Mrs Conlan's stomach, this could be the primary cause of death.

Dr Little was of the opinion the severe paucity of detail provided in the autopsy report made it difficult to definitively determine cause of death.

She considered the opinion of Dr Rutherford and Dr Levy that gastric haemorrhage and pneumonia could have exacerbated coronary heart disease, a reasonable opinion, particularly if the gastric haemorrhage was not particularly large. Depending on the exact pathology present at autopsy (and this cannot be precisely determined from the available information), either of the above causes of death could be valid.

Conclusions

I accept the medical evidence that, up until the point of Mrs Conlan's rapid deterioration, there was no evidence to suggest she was suffering from gastrointestinal bleeding or any other acute condition. Accordingly, the medical treatment provided to Mrs Conlan prior to her discharge was appropriate.

In the circumstances, I accept it was initially appropriate to discharge Mrs Conlan on 28 November with a view to her apparently resolved symptoms being investigated further by her regular treating general practitioner. However when the results of the blood tests taken earlier that morning came to hand, the reversal of that decision was in order and was done.

Following Mrs Conlan's return to the surgical ward, the investigations performed were appropriate.

The onset of the gastric haemorrhage occurred shortly before Mrs Conlan's death. Her rapid deterioration was unable to be predicted and was in all likelihood hastened by her compromised heart.

It is unfortunate the autopsy report is lacking in detail. I note since this death, internal autopsies are now conducted by full time forensic pathologists whose autopsy reports contain significantly more detail.

I am of the opinion Mrs Conlan's cause of death was cardiac arrest. The cardiac arrest was caused by a combination of gastric haemorrhage and pneumonia and was exacerbated by her coronary heart disease.

Findings required by section 45 of the Act

I am required to find, as far as is possible, who the deceased person was, how she died, when and where she died and what caused her death. As a result of considering all of the material contained in the exhibits and the evidence given by the witnesses, the material parts of which I have summarised above, I am able to make the following findings.

Identity of the deceased - The deceased person was Kathleen Anne Conlan.

How she died - Mrs Conlan died when she collapsed in a ward of the Gold Coast Hospital after she had been re-admitted because blood test results indicated she had an unresolved infective process in train.

Place of death - Mrs Conlan died at the Gold Coast Hospital in Queensland.

Date of death - She died on 28 November 2003.

Cause of death - Mrs Conlan died from a cardiac arrest caused by a combination of a gastric haemorrhage and pneumonia that was exacerbated by coronary heart disease.

Concerns, comments and recommendations

Section 46, in so far 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.

I do not propose to make any comments or recommendations as I believe the issues identified by Coroner Batts have been responded to in the intervening period.

I close the inquest.

Michael Barnes
State Coroner
Brisbane
10 June 2011