IN THE CORONERS COURT
OF VICTORIA
AT LATROBE VALLEY

COR 2008 001884

FINDING INTO DEATH WITH INQUEST

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

Inquest into the Death of BEVERLEY PATTINSON

Delivered On:	29 July 2013
Delivered At:	Latrobe Valley Coroners Court
Hearing Dates:	20/02/2012 and 21/02/2012
Findings of:	F A Hayes, Coroner
Representation:	Mr R Harper appeared on behalf of Dr Testro
Police Coronial Support	Sergeant K Connell

I, F A Hayes, Coroner, having investigated the death of BEVERLEY PATTINSON

AND having held an inquest in relation to this death on 20 February 2012 and 21 February 2012

at Latrobe Valley Coroners Court

find that the identity of the deceased was BEVERLEY PATTINSON

born 26 June 1937

and the death occurred On 3 May 2008

at YARRAM & DISTRICT HOSPITAL COMMERCIAL RD YARRAM 3971 VIC

from:

SEVERE DEHYDRATION AND RENAL COMPLICATIONS SECONDARY TO INTESTINAL OBSTRUCTION DUE TO INGUINAL HERNIA

In the following circumstances:

Beverley Pattinson lived at 325 Carrajung Lower Road in Lower Carrajung, Victoria, with her son, Ian. She was aged 70 years.

On Monday 28 April 2008, Mrs Pattinson rang her friend, Marie Cropley, also her son Ian's partner, and told her that she'd been feeling unwell that day. She rang again, at approximately 3pm to say that she was too unwell to cook dinner for Ian.

Ms Cropley knew that Mrs Pattinson must have been feeling most unwell because Mrs Pattinson was a very private person, who didn't discuss her health, let alone complain about not feeling well – "she never ever complained about anything"[1].

On Tuesday, 29 April 2008, Ms Cropley rang Mrs Pattinson to see how she was feeling. She was still unwell. Later that night, Mrs Pattinson rang Ms Cropley again, told her that she'd been vomiting and that she'd called an ambulance. At this point, Ms Cropley knew that things must be very serious, as Mrs Pattinson had never called for an ambulance before. She took herself over to Mrs Pattison's together with her partner, Ian, Mrs Pattinson's son.

Ms Cropley arrived at the same time as the ambulance and saw that Mrs Pattinson was "very pale, she was very drawn, her face was all sunken in"[2]. Ms Cropley observed her to vomit brown fluid into a red bucket, which already held similar material.

Mrs Pattinson was transported to the Yarram Hospital by ambulance and Ms Cropley and Mr Pattison met her there and stayed with her during her examination. That examination was conducted by Dr Zafar Zafar, the Hospital Medical Officer on duty that night. Ultimately, Mrs Pattison was admitted to the Yarram Hospital where she remained, for the most part, until her death on Saturday 3 May 2008.

Mrs Pattinson's family wrote to the Coroners Court and outlined a number of concerns that they had with her medical diagnosis and treatment. They wrote "we believe the medical system has failed our family and taken our dearly loved mother from us – all of which could have been avoided if the correct medical attention was given from the start of her complications on Monday 28th April 2008". Their particular concern was the failure to diagnose the condition from which she died – a small bowel obstruction.

An inquest was held on 20 and 21 February 2012.

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[1] Transcript of evidence, p6

[2] Transcript of evidence,p8

Evidence at the inquest was given by Ms Marie Cropley, family friend; Mr Terry Pattinson, Mrs Pattinson's son; Dr Zafar Zafar, the Hospital Medical Officer on duty on 29 April 2008, Dr Llewellyn Testro, Mrs Pattinson's General Practitioner and Hospital Medical Officer from 30 April 2008 and Dr Craig Winter, Emergency Physician and Director of Medical Services at the Yarram and District Health Service, an administrative role with responsibility for the medical oversight and risk management at that hospital.

Dr Testro, who was also Mrs Pattinson's general practitioner for over 17 years, died between the time of the inquest and the handing down of these findings.

Ambulance attendance on Mrs Pattinson

The Rural Ambulance Service of Victoria attended on Mrs Pattinson at her home at 9.55pm on 29 April 2008. The ambulance officers took Mrs Pattinson's medical history and noted that she had "inguinal hernia repair 2 yrs ago" and "thinks it may herniated again" and "also hiatus hernia". Of her current condition, the following was noted:

> *"STARTED TO FEEL UNWELL AT (APPROXIMATELY) 0630 YESTERDAY. WENT BACK TO BED. VOMITING BEGAN YESTERDAY. OK OVERNIGHT. VOMITING BEGAN AGAIN TODAY AT 0630 AND HAS HAPPENED NUMEROUS TIMES THROUGH THE DAY. LOSS OF APPETITE. HAD 2 CUPS OF TEA ONLY TODAY, BOTH EVENTUALLY BROUGHT UP. NORMAL BA x 1 TODAY."*

The observations included the following:

> *"GCS 15 & ALERT. FEELS GENERALLY UNWELL. OBS AS RECORDED. FEBRILE 37.4. PRODUCED A BUCKET CONTAINING ABOUT 200MLS OF DARK BILE. NO SOLIDS. ONLY FEELS NAUSEOUS JUST PRIOR TO VOMITING. ABDO FLACCID, PAIN FREE. SLIGHT TURGOUR OF SKIN."*

Examination and admission to Yarram Hospital

Hospital Records

Mrs Pattinson arrived by ambulance at the Yarram Hospital at 10.31pm on Tuesday 29 April 2008. Ambulance officers handed over to a nurse at the hospital. She was seen by Dr Zafar Iqbal Zafar, the Hospital Medical Officer on duty that night at approximately 11.15pm.

Dr Zafar notes in the progress notes that Mrs Pattinson complained of vomiting since the morning of the previous day. She had eaten some vegemite the night before, meaning the night before that. He noted that it "started as nausea but later vomiting". He noted "no diarrhoea" and "last stool passed this evening".

Dr Zafar observed that Mrs Pattinson had good colour, that she was dehydrated, had no ear, nose or throat issues. He found her chest clear and that she was absorbing oxygen at 92% on room air. He noted her blood pressure at 123/81 and took peripheral pulses, with a pulse of 87.

In relation to her abdomen, Dr Zafar noted that it was "soft, no tenderness, no masses. B/S (bowel sounds) moderately loud; but not very frequent." He noted "no GU" meaning no general urinary complaints and "no BOM" being no burning of mid-urination, the presence of which might indicate a urinary tract infection.

He noted that she was fully conscious, GCS 15/15 and oriented".

Dr Zafar diagnosed that Mrs Pattinson was suffering from gastritis. He admitted her to the hospital and prescribed "symptomatic treatment" including rehydration, medication, diet and "plenty of fluids". That admission to the ward took place at 11.30pm. By 1.00am the next morning, the nursing notes indicated that Mrs Pattinson's nausea had settled within half an hour of taking Maxolon, the prescribed anti-emetic medication. She was settled and sleeping. She had been encouraged to drink fluids. No intravenous fluids had been ordered by Dr Zafar.

Evidence at Inquest

Marie Cropley gave evidence that she was present with Mrs Pattinson when Dr Zafar examined her in the Emergency Depeartment (ED) at Yarram Hospital. Ms Cropley stated that Mrs Pattinson was too sick to answer questions and that it was Ms Cropley who answered the doctor's questions. She observed that Dr Zafar examined Mrs Pattinson's stomach area and that he took her pulse. She stated that he didn't ask many questions. Ms Cropley also stated that Dr Zafar indicated to them that they could take her home, which Ms Cropley refused to do, as she thought that Mrs Pattinson was too ill.

Dr Zafar gave evidence at the inquest.

Dr Zafar stated that the facts on that clinical presentation "don't look that bad". He regarded her as "pretty stable". "Sometimes these elderly patients can develop gastritis and gastritis is not something you would treat in the hospital. You can give them medication that then you can discuss with the family whether they are happy to take the patient home or they are concerned and you can admit the patient".[3]

Dr Zafar stated that it was his usual practice to elicit a medical history from a patient and conceded that he had made no note to that effect. His view was that "I may have missed to write it down" but conceded that it was possible that he didn't have the conversation about past medical history.

Dr Zafar stated that he performed an examination of Mrs Pattinson's abdomen, by observation, palpation and by listening with a stethoscope. He stated that he listened for bowel sounds to determine whether there was any abnormal activity in the abdomen, with frequent bowel sounds indicating that the patient has "diarrhoea or something else". He was not concerned about the bowel sounds that he heard.

Although Dr Zafar's notes of his examination make no reference to his awareness that Mrs Pattinson had an inguinal hernia and an umbilical hernia, in his evidence Dr Zafar states that he was aware of those conditions. He, at first, states that "when I examined her, I did notice that she umbilical hernia which reflects in my later notes".[4] The notes that he refers to there are those relating to his examination of Mrs Pattinson some three days later, 3 May 2008. However, he went on to say "if I can recall, she had this umbilical hernia which was a reducible hernia and it was not a small one, it was a big one, so that was reducible, that means it could not cause a problem"[5]. He stated that he located the umbilical hernia during the examination of Mrs Pattinson's abdomen on 29 April 2008.

As to why he did not record this finding in his notes on 29 April 2008, Dr Zafar stated that "just making an error and not really any particular reasons".[6] He did agree that such a finding would be important to note.

Dr Zafar was also asked if he was aware that Mrs Pattinson had an inguinal hernia, to which he responded "yes". However, his subsequent answers referred to the umbilical hernia. It is possible that he misunderstood the reference at this point to an inguinal hernia and thought he was being asked about the umbilical hernia.

At a later point in his evidence, Dr Zafar confirmed that he was aware that Mrs Pattinson also had an inguinal hernia, stating that he would have checked it during his examination. He stated "the existence of the umbilical hernia, I noticed at the time of examination but as I said I may have forgotten to record it down – I forgot to record it down and during my examination I reviewed the inguinal hernia as well. If there was any positive finding I would have recorded it".[7] He went on to say that he examined the groin area and did not detect any inguinal hernia. He also said that he was only aware of the umbilical hernia, which was reducible and about which he made no notes.

Asked whether he had reviewed the notes of the ambulance officers at any time in his assessment of Mrs Pattinson, Dr Zafar stated that it was his usual practice to do so. He could not say with certainty that he had.

Asked whether, having read those notes, would he have changed his diagnosis, he said "I don't think that would be the case". He stated "these things can happen with gastritis, they can have vomiting and they can have cramps as well". In addition, the ambulance officers found on examination that Mrs Pattinson's abdomen was "flaccid. Pain free", which was consistent with his findings and inconsistent with the symptoms typical of a bowel obstruction. Dr Zafar also stated that the type of pain expected would be abdominal pain, as opposed to epigastric pain.

As to the colour of the vomit, being dark bile, Dr Zafar said in evidence "it could be obstruction or it could be something coming further than the stomach".

He then agreed that if he had had that information prior to or during his initial examination of her, it may have affected his diagnosis, in that "I could have maybe discussed the patient at the same time but at the – it would not have changed my line of treatment because at that time the patient would be admitted, resuscitated and rehydrated and that's what we did".[8]

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[3] Transcript of evidence, p40
[4] Transcript of evidence, p43
[5] Transcript of evidence, p43
[6] Transcript of evidence, p47
[7] Transcript of evidence, p48
[8] Transcript of evidence, p46

Dr Zafar conceded in his evidence that the symptoms noted on the ambulance record were consistent with a potential obstruction and that he couldn't be sure that he had viewed those notes.

However, he noted that the clinical examination revealed that the abdomen was soft, the vital signs were there, and that an obstruction, in those circumstances was unlikely. He stated "that's one of the differential diagnosis but not the conclusive diagnosis." However, he did not include any reference in his notes to a differential diagnosis of a bowel obstruction.

His diagnosis of gastritis was formulated on the basis that there was vomiting over a period of two days and an absence of diarrhoea, which indicated that the distal bowel was not involved. He also noted the presence of bowel sounds.

By way of treatment, Mrs Pattinson was prescribed Maxolon, an anti-emetic and oral fluids, in that she was to be encouraged to drink fluids. No intravenous (I//V) fluids were prescribed by Dr Zafar, for which he could give no explanation.

Dr Craig Winter, who is an experienced emergency physician and holds the position of Director of Medical Services at Yarram Hospital was asked about the significance of the colour of the vomit noted by Ambulance officers. He stated that "depending on the site where most of the fluid is coming from and the course of that fluid, it can change considerably. Simple vomit from the stomach is generally clear, as you move further down the gastrointestinal tract depending on how much residual fluid there is in the stomach then it will change colour. It can become a greenie yellow colour as it becomes more related to the biliary tract and a little further down it goes to intestinal tract and as you continue further down, if the fluid is coming from the most distal parts of the bowel, then it becomes brown or even black."[9] He also stated that the colour as reported by Ambulance officers, "would suggest it was from more distal in the bowel."[10] That, in turn, he stated is "most likely suggestive of a bowel obstruction. It's a little bit subjective because if there's blood in – for instance, if blood sits in the stomach for a period of time it can become a reddy brown colour but if there's no blood present and the vomit is just brown then you'd be very concerned about a bowel obstruction." The presence of the coloured fluid "should have suggested that there was a strong possibility of a bowel obstruction."[11]

Dr Winter also stated that the patient's view that her inguinal hernia had herniated again would have been important enough to exclude that as a possible cause for her condition. He stated "it would have been my presumptive diagnosis I think, so the management at that point, bearing in mind that it's late at night and it's difficult to get either pathology or radiology at that time of night, I think the management that was undertaken was appropriate other than the fact that no intravenous fluids were started."[12] He went on to state "it would have been appropriate to start the intravenous fluids, keep the patient, nothing to eat or drink and insert a nasogastric tube to empty the stomach, and then continue the investigations in the morning"[13].

Dr Winter was asked whether the Ambulance officers' notation that Mrs Pattinson's abdomen was "flaccid, pain free" went against a diagnosis of bowel obstruction, and he stated "my comment is to ignore where it's written that, "the patient has had an inguinal hernia repaired two years ago and think it may have herniated again" and now they're unwell and vomiting, I can't see any reason why you would not investigate a bowel obstruction".[14] He went on to agree that it's possible that, by the time Dr Zafar examined Mrs Pattinson, her initial obstruction may have been resolving, but stated "I think anything's possible. I just keep coming back to my point, that if I was working in the emergency departments that I work in and a resident came up to me and hadn't excluded a bowel obstruction, I'd say that was unacceptable, no matter what the findings are".[15]

In relation to whether it was appropriate for Mrs Pattinson to remain at Yarram Hospital or whether she should have been transferred, Dr Winter stated " I think based on the information that was available which was purely clinical, I think it was reasonable for her to stay overnight and there would have been no difference to her management if she'd gone to Latrobe or Sale other than the fact than she would have had the pathology and radiological investigations done that would have confirmed or otherwise the diagnosis."[16] And, if she had been transferred to either of those hospitals Dr Winter speculated "I think what would have happened is she would have had x-rays and the pathology investigations

[9] Transcript of evidence, p136
[10] Ibid
[11] Ibid, p137
[12] Ibid, p138
[13] Ibid
[14] Ibid, p174
[15] Ibid, p175
[16] Ibid, p138

that revealed the various results in the morning were very, very serious. They indicated a very unwell person. That would have been detected earlier had she been transferred during the night. That's with hindsight".[17]

Dr Winter was asked about the length of time that a bowel obstruction might take, until the point of strangulation, and he stated "That can be –I don't know if you can answer that question because it depends on how much of the bowel is involved. If it's just one side of the bowel and not the whole bowel then it's a much slower process. Once – and I noted from the autopsy report that there was still .... a small hole present in the bowel but it did sound like the whole bowel was involved at the time of her death. It may have been that the whole bowel was not involved throughout the time of her admission, so you can have somebody that grumbles along with fairly non-specific symptoms but additional investigations that weren't done could have been done that would have shown that."[18]

Asked what those investigation should have been, Dr Winter stated "I think what was written in the ambulance notes was fairly tame. I think if the ambulance notes were not there and we were just left with the medical notes from the point that she arrived, just if it was just based on the medical notes then things did look fairly appropriate. But I think the ambulance notes on top of that they were – that should have been the first thing that was looked at and that should have raised serious concerns about the possibility of a bowel obstruction".[19]

Dr Winter also stated that in the orientation for residents and registrars in the emergency departments in which he works, "they are all told that if they do not read the ambulance notes and if they do not read the triage nurse notes and if they don't read the nursing progress notes they do so at their peril. Because there's often critical information there and I said earlier today that the ambulance notes were very suggestive of a bowel obstruction"[20]. He stated "it's really in my experience it's the one opportunity to capture that information because it would be unusual the next day for the medical team or nurses to go back to the ambulance notes".[21]

Day one – Wednesday 30 April 2008

Hospital Records

At 7.30am, the nursing notes indicate that "Bev has had a poor night, vomited several times – approx. 800ml dk green bile fluid in total. H.P.U. Given i/m Maxolon (ordered oral but unable to tolerate). Mouth very dry. Bev states that she has no pain.

At 9.00am, Dr Llewellyn Testro was on duty as the Hospital Medical Officer. He also happened to be Mrs Pattison's treating General Practitioner at the Yarram Medical Centre, located next to the hospital. Dr Testro reviewed Mrs Pattinson. He noted her ongoing vomiting over the previous 48 hours. He noted "no abdo pain" and "voiding small amounts". He also noted some "looseness bowels". Dr Testro noted, amongst other things "abdo soft". His diagnosis is recorded as "gastroenteritis", with mild dehydration and continuous vomiting. He ordered that a series of tests be performed, including full blood tests, a liver function test and an ECG.

Dr Testro prescribed an intravenous drip and Acimax, together with Maxolon regularly. He recommended sips of clear fluids only and a light diet if no further vomiting.

The intravenous drip was commenced at 9.30am and the results of the blood tests were returned and communicated to Dr Testro during the day.

By 3.00pm, the nursing notes indicate that Mrs Pattinson was afebrile, that her nausea was settling, that she had showered herself, that she was tolerating sips of water only and that her other observations were within normal limits. Having received the results of the blood tests, Dr Testro reviewed Mrs Pattinson at 1800 hrs. He noted that the tests were "consistent with significant dehydration prior to admission". He notes that there was "still mild tachycardia", "mild acidosis" and "lungs cl clear". He notes "haemoconcentration in FBE".

Dr Testro recommends the continuation of IV fluids as charted. He recommends oxygen only if saturations fall below 93% on room air. He seeks the continuation of FBC.

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[17] Ibid, p139
[18] Ibid, p141
[19] Ibid, p142
[20] Ibid, p148
[21] Ibid, p177

In relation to Mrs Pattinson's progress, Dr Testro notes that she "says she feels significantly better than this am" and that she "denies any pain".
Dr Testro notes at the end of this entry that Mrs Pattinson "was to see AS (surgeon) re hernia – para-umbilical and (L)ing hernia repair."

The evening nursing notes, at 21.50pm outline that Mrs Pattinson was tolerating a liquid diet and had not vomited. She remained tachycardic. Her urine output was noted to be "minimal".

Evidence at Inquest

Marie Cropley gave evidence that she visited Mrs Pattinson twice on this day – at approximately 9am and then later. She said that Mrs Pattinson looked and sounded better than she had done the previous day. She was brighter and was chatting.

Dr Testro stated that he had treated Mrs Pattinson, over a period of 17 years. In relation to her medical history, he stated that he had referred her to a surgeon, Dr Sarkar, for repair of a left inguinal hernia in April 2006. In January 2008, he stated, "she had consulted me again with a recurrence of her left inguinal hernia and she also had a para-umbilical hernia. Dr Sarkar booked her in for repair of the left hernia and central hernia in June 2008".[22]

Dr Testro reviewed Mrs Pattinson at 9am. He stated that he did not recall specifically reviewing the ambulance notes, but having subsequently reviewed them for the purposes of the inquest, he stated "I believe that my findings on Mrs Pattinson on the morning of the 30th of the 4th means that the ambulance notes were merely consistent with my assessment on that morning."[23] He noted "episodic vomiting" over the previous 48 hours, which he stated was a non-specific symptom and was consistent with gastritis. He stated that he found no abdominal pain, which was inconsistent with the presence of a bowel obstruction, in which case, abdominal pain would be expected. He stated that he asked Mrs Pattinson if she had abdominal pain, which she denied. He said that he palpated her abdomen and that there was no abdominal pain or tenderness – "it was soft".[24] He noted also that her tongue was moist, as an indicator as to degree of dehydration. His notes indicated that he turned his mind to the possibility of food poisoning, which was not likely, he found. He also ordered a series of blood tests and a cardiogram. Those tests he explained as follows: "if somebody's been vomiting repeatedly or had severe diarrhoea then they can develop mineral and fluid imbalances, become dehydrated. So all of those, the blood tests may also indicate whether there's any underlying infection. The ESR and the CRP are markers for infection and inflammation. The electrolytes and creatinine are to check on the renal function and give a good insight into whether there's any mineral imbalances. LFT stands for liver function tests, to see whether there's any abnormalities there. And ECG for electrocardiogram"[25].

Dr Testro confirmed that he ordered the commencement of intravenous fluids, which started at 9.30am. He also ordered Asimax 20mg twice a day, as, with gastritis, "that's to suppress the amount of acid the stomach produces". He also ordered oral liquids, light diet and regular Maxolon. Dr Testro stated that, at that point, he accepted the initial diagnosis of gastritis/gastroenteritis, the difference he explained as "being whether the – between gastritis and gastroenteritis as to how much the bowel's involved as opposed to just the stomach". He stated at, at that time, "the signs definitely weren't pointing towards a bowel obstruction"[26].

In his review of Mrs Pattinson at 6pm that night, Dr Testro had the benefit of the blood test results. Those results indicated that she had haemoconcentration - her blood had become concentrated due to the lack of fluid. He noted that her "ECG was essentially normal apart from a slightly rapid pulse rate. So I maintained IV fluids". He notes that oxygen saturations went below 93. He requested that a fluid balance chart be maintained. He also stated that Mrs Pattison told him that "she felt significantly better that she did that morning and she denied any pain"[27]. At this stage, Dr Testro stated that he thought the fluids were having a beneficial effect and that the underlying problem may be being addressed. He was still of the view that gastritis or gastroenteritis was the appropriate diagnosis. There was nothing to point, he said, to a diagnosis of bowel obstruction.

Dr Testro was asked about the risks of a hernia requiring repair, as Mrs Pattinson was, to which he replied "the most serious complication is strangulation that the hernia prolapses through the opening in the abdominal wall and that the

[22] Ibid, p78
[23] Ibid, p87
[24] Ibid, p88
[25] Ibid,p89
[26] Ibid, p91
[27] Ibid, p81

blood supply gets imperilled and the piece of bowel then dies".[28] He went onto explain that strangulation of the bowel was not of itself fatal, but that surgical intervention would be required to limit the potential damage.

Of Mrs Pattinson's hernias, Dr Testro stated that he was well aware of her hernias, but did not discuss them with her and saw them as being "incidental" to the diagnosis. The principal reason for this was that his examination of her abdomen, which he said usually included the hernia sites, provided no indication of a problem at those sites, in that the abdomen was soft and there was no pain.

Dr Testro confirmed that he was aware that the nursing notes indicated that, overnight, Mrs Pattinson had vomited approximately 800mls of "dark green bile fluid". He stated that the colour was consistent with the reported history of vomiting over a period of 48 hours, in that the stomach contents would already have been vomited. He stated that "The bile can be an indication of – of – of bowel obstruction but it's not a lone – it could be related to severe gastroenteritis. Could it be anything else? It could be biliary disease. So there are other causes."[29] However, it was his evidence that, given the absence of abdominal pain and abdominal distension, he did not have a concern about a bowel obstruction. Asked about the indicators that he would be looking for to point to a bowel obstruction, Dr Testro stated that "it's a set of major symptoms to direct you to the bowel for a start, such as pain in the abdomen" and "if a hernia was strangulating you would expect pain over the site of the hernia".[30] Although Dr Testro didn't have a specific recollection of examining the hernia sites, his evidence was that his abdominal examination would have included palpation all over and "she didn't indicate to me that she had tenderness anywhere".[31] Of the colour of the blood reported by ambulance officers when they picked her up on 29 April 2008, Dr Testro was of the view that "it could be consistent with acute gastritis". It was not, in his view consistent with a bowel obstruction because the vomiting did not continue, it stopped for three and a half days. If it had been a bowel obstruction, Dr Testro would have expected there to be continued vomiting, given the amount of fluid administered, even with anti-emetic drugs.

In relation to the rehydration of Mrs Pattinson, Dr Testro indicated that where a person has been vomiting prior to coming to hospital, the process of replacing those fluids and then providing maintenance of fluids may take some time, a few days. Hence the input/output measurement process and the blood tests, to "make sure that we're effusing (sic) the kidneys well enough".

The results of the blood tests on 30 April 2008 indicated that renal function was compromised. The white cell count was up, the haemoglobin count was high at 170. There was a "fairly high creatinine, which is the main marker of renal problems and it was kind of not unexpected considering the history of the vomiting for 48 hours". Dr Testro repeated the blood tests on a daily basis.

Dr Testro made a notation in the progress notes that Mrs Pattinson was awaiting surgery for her two abdominal hernias. He did this to alert other practitioners to her comorbidities. However, given her pain-free presentation and lack of swelling in the area of the hernia site, he did not suspect, at any time during her time in the hospital that the hernias might be the cause of her illness. Dr Testo stated that if a hernia was strangulated, a practitioner would be able to feel a "firm, tender swelling" and "it should be hard or very – almost very hard and tender".

In relation to the report "minimal urine output" for this day, Dr Testro stated that Mrs Pattinson had only been receiving IV fluids for less than 12 hours and "that was too short a time to be making judgments" about her fluid levels. Given her vomiting over the previous days, it was more a question of catching up with whatever unknown amount of fluid was lost prior to admission".

In relation to the investigations which should have been conducted at this time, Dr Winter said "if I take the pathology results from the next day (being 30 April 2008), and imagine they're available along with the ambulance notes at that time, which could have been the case if she was in a larger centre. The most basic investigation was an abdominal x-ray by a director and lying down, I think would have been highly useful. It may have shown that it was normal and that can still be the case in an early bowel obstruction. The blood results though did show very serious derangement in the acid-base balance in the body which hasn't been discussed before now which should have set off some big alarm bells too about what could be going on and would have suggested some additional pathology that could have been ordered that wasn't"[32].

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[28] Ibid, p106
[29] Ibid, p109
[30] Ibid.
[31] Ibid, p112
[32] Ibid, p142

Of those blood test results, Dr Winter stated "The obvious things on this are that previous results show that the kidney function was normal and that now it was significantly abnormal and... that was significant with significant dehydration and renal impairment. The sodium and potassium which are very important electrolytes in the blood were normal but the – and also the liver function tests were normal but you would expect that to be the case in someone even with a bowel obstruction until they were very unwell. The alarming results here were the chloride and bicarbonate, the way the electrolytes work in the blood is you need to have roughly the same number of positive things floating around as negative things, so that in the end you don't end up charged in some way, positive or negative. So it's important that the electrolytes that are positive which is potassium and sodium roughly balance the negative ones, which is chloride and bicarbonate"[33]. Dr Winter went on to state that in Mrs Pattinson's case, both the chloride and bicarbonate were low, indicating "a very significant amount of accumulated acid in the blood which has to come from somewhere"[34]. Of the possible causes, Dr Winter nominated very acute significant renal failure or an accumulation of lactic acid with the latter indicating "a reduction in blood supply to some part of the body or there's a very serious derangement in the function of one of the body's organs. So it's a flag to go and look"[35]. Those results, Dr Winter stated appeared to be more than gastritis and were consistent with a diagnosis of a partial or a full bowel blockage. Importantly, Dr Winter stated that the results did not point necessarily to a bowel blockage but that they warranted further blood tests, to measure lactate. He stated "I would assume based on these results and also in hindsight that the lactate would have been significantly elevated and the first thing we think of when we see significantly elevated lactate is ischaemic bowel. It's the number one cause of a mysterious elevation in lactate and this sort of derangement in the blood results with someone presenting in the way that Mrs Pattinson did".[36]

Dr Testro did not seek additional blood tests to measure whether there was any elevation in the lactate. Of this, Dr Winters stated that the interpretation of blood tests to this degree is quite specialised, with many Resident doctors in emergency departments often missing its significance. He went on to say "I don't know if it's fair particularly in a rural setting, where you generally have general practitioners who are skilled in a whole range of areas but this is getting quite specialised in interpretation. I'm not sure it's fair to be too critical that they may have missed the significance of some of these pathology tests".[37]

In relation to the quality of the clinical examination conducted firstly by Dr Zafar on 29 April 2008 and secondly by Dr Testro on 30 April 2008, Dr Winter stated "I think at some point she had an obstruction which likely partially relieved itself and I'm not sure when that would have happened. She recovered from a biochemical point of view fairly quickly once intravenous fluids were commenced, even – it was a very spectacular recovery within a matter of hours and it may have been at the time that first examination versus the second could have been quite different. Because I would speculate that the second examination may well have not shown much. I'd be a little surprised if the first one didn't show anything"[38]. He agreed that the evidence appeared to show that there had not been, contrary to Dr Zafar's evidence, a specific examination of the site of the inguinal or umbilical hernias on the first examination.

Putting aside the failure to recognise the importance of the "very significant acidosis", Dr Winter was of the view that Dr Testro's diagnosis of gastroenteritis as the cause of the problem was not unreasonable, nor was his plan of action of repeated blood tests, fluids and conservative management. He also noted that, by this time, nobody was referring to the original ambulance notes or to what had been said by family members at the time of admission. If they had been referring to those earlier notes, they would have been a clear indication that a bowel obstruction needed to be excluded.

Day two – Thursday 1 May 2008

Hospital Records

The nursing notes at 5.55am outlined that Mrs Pattinson had no vomiting or nausea, that she continued to be tachycardic and required oxygen during the night, as her saturations on room air were 88%. Mrs Pattison was reporting "some discomfort in epigastric area – declined oral analgesia". Her urine output was continuously monitored.
Review by Dr Testro at 8.15am indicated that Mrs Pattinson "feels much better". He notes that her blood pressure was ok but that her oxygen saturations were between 90-92 on room air. He makes the note that "I think she probably has hiatus hernia", in relation to which he wrote "it may turn out to be incarcerated". He also notes that she has two other "abdo wall hernias". He recommends continuation of the previous medications, oxygen and IV fluids. A chest x-ray was

[33] Ibid, p144
[34] Ibid, p145
[35] Ibid.
[36] Ibid, p146
[37] Ibid.
[38] Ibid, p150

requested, as were further blood tests. Dr Testro also noted that 280 mls of urine had been voided since 2 am which indicated a rate of about 45 mls per hour.

The afternoon nursing notes, entered at 3.25pm indicate that Mrs Pattison had tolerated a small amount of jelly and that she continued to have oxygen.

Dr Testro saw her again at 5pm, having received the results of that days blood tests. He noted "Sig improvement in all parameters". He noted and increase in the GFR, less haemoconcentration and increased urine output. However, the notes reveal he was still concerned about a significant degree of renal compromise. He continued the IV fluids and recommended a light low protein diet. Mrs Pattinson also had a slightly rapid pulse rate, which he said was "consistent with dehydration". He ordered further blood tests.

At 9pm that night, the nursing notes indicate that Mrs Pattinson was tolerating a minimal diet and fluid.

Evidence at Inquest

Ms Cropley stated in her evidence that when she went in for her evening visit, she noted that Mrs Pattinson was very tired, that she just wanted to sleep, "but her tummy was getting bigger at that stage".[39] Mrs Pattinson made this observation and lifted her nightie for Ms Cropley to see, and Ms Cropley did see that her tummy was getting bigger. Ms Cropely stated that "it wasn't real big at that stage but it was yeah, it was bigger than what she would normally have been like."[40]

Dr Testro reviewed Mrs Pattinson at 0815 hours. He stated that he ordered the chest x-ray as he was concerned that Mrs Pattinson's hiatus hernia might have been causing her epigastric pain and her low oxygen saturations. He noted her urine output to have improved with 280 mls since 2am, which was an improvement. This represented a rate of 45mls an hour which exceeded the expected 30ml an hour output. Dr Testro was happy with this result and felt that her progress overall was improving. He continued the treatment of oxygen, Maxolon, fluids, light diet and ordered another set of blood tests to monitor her progress and to see if there's continued progress in her kidney function.

Dr Testro reviewed Mrs Pattinson again at 1700 hours, with the benefit of the blood test results for that day. In relation to the blood test results, Dr Testro stated that they showed "significant improvement". "The creatinine had – the higher it is the worse it is – was 228 on the 30th and it was 159 on the 1st. Normal is about 80 and – so that was a significant improvement from one day to the next. The blood count was also significantly improved. Um, her haemoglobin went from 176 to 163. Her white cell count dropped from high 12 to normal and her PCV, which is a measure of how concentrated her blood is, dropped from .53 to .48 which is back towards normal", meaning that "things were going in the right direction".[41]

Dr Testro noted that Mrs Pattinson continued to have a degree of renal compromise, in that "her renal function is still to nearly normal but probably in about – a little over 30 hours of intravenous fluids she's feeling – she says she's feeling better. She's voiding greater than 30 mils an hour but her – I presume her blood test still showed, you know, that things could be improved even further". The blood tests indicated that the "serum creatinine is still – has still got a way to go before it goes back to normal. But it's –it's improving". Dr Testro did not think that there could have been an association drawn between the renal impairment and any potential complications with the inguinal hernia. He still thought the hernias, at this point, were incidental.

Dr Testro stated that he did not form the view on this day the Mrs Pattinson had any abdominal distension.

Day three – Friday 2 May 2008

Hospital Records

The morning nursing notes indicate that Mrs Pattison had a restless sleep overnight. Her oxygen saturations continued to be poor, despite oxygen being administered via nasal prongs and oxygen, for a time, was administered via a mask, which improved the situation. No vomiting occurred. Her urine output continued to be monitored.

At 9.00am, Mrs Pattison told Dr Testro that she "felt a little better". However, Dr Testro notes "persistent tachycardia in fact pulse rate has risen last 24 hours + (oxygen) sats continue to remain low in air – 88-90%".

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[39] Ibid, p14
[40] Ibid, p15
[41] Ibid, p116

Dr Testro discussed the morning's findings with a colleague, Dr Wong, who was also a GP Hospital Medical Officer. Dr Wong suggested that a pulmonary embolism might need to be excluded, but he did not examine Mrs Pattinson himself.

Dr Testro noted in his notes that the lungs appeared "clear clinically". He was awaiting the outcome of a chest x-ray and ordered a CT pulmonary angiogram. He also ordered a range of other tests, including a thyroid function test, a D-Dimer test and further blood tests to check her electrolytes. He prescribed Clexane.

Dr Testro also notes that Mrs Pattison "appears to have not had enough oral fluids yet" and recommends the continuation of IV fluids. He notes that her tongue is moist but that there is "relatively poor urine (output)".

Dr Testro also conducted an internal pelvic examination and noted "tense abdo". He also wrote "may need pelvic ultrasound and CT abdo."

In relation to the results of the chest x-ray, he notes that it is suspicious for PE (pulmonary embolism) and advises that Dr Wong be contacted with the results of the CT pulmonary angiogram.

The nursing notes for this day at 12.45pm outline that Mrs Pattinson was prepared and dispatched to Sale Hospital radiology for a CT Pulmonary Angiogram. The notes also indicate that Dr Testro rang and added a request that further tests, in the form of a pelvic/abdominal ultrasound be done while Mrs Pattinson was in Sale. As Dr Testro had departed the hospital for Melbourne, Dr Wong was asked to request the further tests from Sale. In relation to observations conducted that day, it was noted that there had been a decrease in urine output.

The nursing notes reveal that at 3pm, Dr Wong, then on duty, recorded that the D-Dimer test was positive, which did not exclude the possibility of a pulmonary embolism. He was also advised that Mrs Pattinson, due to her renal failure could not have the CT pulmonary angiogram. The radiologist was unable to give a verbal report at that time. Once the results were available, another doctor was to review them.

Mrs Pattinson returned to Yarram Hospital, from the Sale Hospital, at 10.20pm.

The nursing notes at 12.30am on Friday 2 May indicate that she reported having consumed only a few sips of water during her trip. The notes state "if accurate, urine output (less than) 600mls for 24/24 of 2/5/08". Mrs Pattinson was also given some Maxolon as she felt "a bit squirmy" after the transport back from Sale. She had also been given oxygen by mask to bring her saturations up to 96% from 88%.

Evidence at Inquest

In relation to Mrs Pattinson's progress at his 9am review, Dr Testro stated that He was "not completely happy with her. Her pulse rate has gone up a little. Her oxygen saturations have slid down a little. I think I had the result of the chest x-ray faxed through at that stage and it showed some minor changes which could be consistent with pulmonary embolism. And pulmonary embolism is an extremely dangerous condition to have".[42] He ordered the CT pulmonary angiogram and a D-Dimer test to check for pulmonary embolism, together with further blood tests. He ordered the thyroid function test, as he was concerned about Mrs Pattinson's "persistent rapid pulse rate". To check for thrombosis, Dr Testro examined Mrs Pattison and could find no thrombosis. He also conducted an internal pelvic examination, around the lower abdomen to check for masses or abnormalities which form the basis of an embolism, of which none were found. He stated that the internal examination found a "tense" abdomen, but with no pain reported.
In relation to the finding that the abdomen was tense, Dr Testro said this "it's not a very pleasant procedure for any woman to undergo, but – it meant inserting two fingers into her vagina and palpating her lower abdomen and it was tense. Um, was that the start of abdominal swelling? I didn't formulate any idea that she still had an obstruction at that stage. Again there was no complaint of pain and I would have expected – the vomiting had stopped over the previous 48 hours. There was nothing to – to make me feel that she had a bowel obstruction or a strangulation."

Dr Testro did not organise for an abdominal x-ray at that point, because he did not suspect a bowel obstruction. He agreed that, had he so suspected, that would have been the best test to request. His main concern at this point was to locate any potential pulmonary embolus. An abdominal x-ray would not have revealed any such clot. In relation to whether the pelvic ultrasound, which he had ordered, would locate a bowel obstruction, Dr Testro stated that the sonographer would need to be guided on where to look, as just "blind testing" will not be conclusive.

[42] Ibid, p96

Dr Testro stated that, in his view on the basis of his physical examinations, Mrs Pattinson continued to not have the primary symptoms of bowel obstruction, namely abdominal distension and abdominal pain. His evidence was that "you need both sets of evidence before you can say that you've got a strangulated hernia causing a bowel obstruction."[43]

That was Dr Testro's last input in relation to Mrs Pattinson, save for a phone call he made to nursing staff, requesting that they organise for a pelvic ultrasound to take place on Mrs Pattinson while she was in the Sale Hospital. Dr Testro was not at the hospital again prior to Mrs Pattinson's death.

Mrs Pattinson was transferred to the Sale Hospital for radiological tests, and left the Yarram Hospital at approximately 10.45am. She did not return until 10.20pm that night.

In relation to the best test to investigate for the presence of bowel obstruction or a hernia in the process of resulting in same, Dr Winter stated that a clinical examination might not always reveal the presence of a problem, depending on how and to what extent the bowel had protruded through the defect in the abdomen wall. He stated that an abdominal x-ray would be the preferred test, even though it, in itself, may not have revealed anything specific. In such a case, an abdominal CT scan, together with ongoing clinical and biochemical monitoring would be the recommended course.
Dr Winter gave evidence that the blood tests indicated that Mrs Pattinson was experiencing a significant improvement – "there was significant improvement in her renal function and the gap between the positive and negatives, although the significance had not been picked up, was also improving as well".

In relation to the issue of urine output, during her time at Yarram Hospital, Dr Winter stated "I think the urine output throughout the time that she was in hospital whilst it was – it was barely acceptable, we usually like people to pass about a mil a minute of urine, so about 60 mils an hour is what most people would be doing as they're carrying on their usual activities. Half a mil a minute would be considered your minimum and she was doing that most of the time, sometimes she'd drop below that. I saw that she had a positive fluid balance of about eight or nine litres over three days and that she gained about three and a half kilos in weight, and I think because – that's fairly aggressive fluid resuscitation and I think because of that, particularly if she had a bowel obstruction which was not complete and they have been – well, it may have fluctuated in the severity of it. I think that allowed her to appear to improve for a number of days. Her presentation was not at all typical of someone that comes in with a bowel obstruction, it's missed, they get worse and eventually unfortunate (sic) they succumb to it. She did not present like that".[44]

Of Dr Wong's involvement in suggesting that a pulmonary embolus be investigated for exclusion, Dr Winter stated "I wasn't so concerned about – Dr Wong's another doctor, he's very high calibre. I think he was given a series of facts which just would have appeared quite logical to exclude a pulmonary embolus. He didn't go and see the patient. He didn't become involved in it and I think unfortunately it led to another error".[45]

Radiology and examination at the Sale Hospital – Friday 2 May 2008

Hospital Records

The Sale Hospital records indicate that Mrs Pattison went to the Radiology Department and underwent a lung scan, or ventilation perfusion isotope scan and an upper abdominal ultrasound. The former was to check for evidence of a pulmonary embolism, the result of which was that "there is no evidence of pulmonary embolism". The second test, the ultrasound, found no masses. In a letter to the Coroner, dated 6 November 2012, Dr Kelvin V. Stribley, Radiologist, stated "Sonographer noted bowel distension which on ultrasound is a non-specific finding". He also stated that the CT pulmonary angiogram could not be performed due to Mrs Pattinson's renal failure. None of the records associated with the radiological testing note any concern about a potential bowel obstruction.
Once she was finished in Radiology, the records indicate that Mrs Pattinson went to the Emergency Department. It's not clear from the hospital records why this occurred. However, the triage record indicates that at 17.10pm on 2 May 2008, Mrs Pattinson was presented to ED. The "presenting complaint" section of the document states "From xray for VQ scan" and the "assessment" section of the document states "? small bowel obstruct To be transported back to yarram via RAV".

Whilst in ED, Mrs Pattinson was medically examined by Dr Melinda Gan. The records by Dr Gan indicate that Mrs Pattinson was at the Sale Hospital for "V/Q scan for ? PE", the results for which were negative. Dr Gan's examination referred to the absence of vomiting for 4 days, the absence of bowel movements for two days, a lack of pain and

[43] Ibid, p130
[44] Ibid, p147
[45] Ibid, p157

nausea. Mrs Pattinson was reporting being hungry. Mrs Pattinson did not have a fever, or shortness of breath or chest or abdominal pain. She also reported that her urine function was good. Her previous hernia history was noted. Her examination of the abdomen revealed that Mrs Pattinson's abdomen was soft, with "Nil bloat" "not tender, rebounding pain. Bowel sounds present". Dr Gan ordered some intravenous fluids and metoclopramide for Mrs Pattinson prior to her transfer back to Yarram Hospital.

Further statements

A series of questions were put, in writing, to the Sale Hospital and answers to those questions were provided by Kate Roberts, Nursing Unit Manager, Emergency Department. That document states that "Radiology Department closed at approximately 17:00pm, patient was sent to ED to wait transfer back to Yarram Hospital. Patient was not officially referred to ED for assessment according to the notes". Mrs Pattinson remained in ED for four hours and 10 minutes. The information contained in the triage assessment was provided by Radiology staff to Acting ANUM Pam Smith. Mrs Pattinson was triaged as Category 4, for assessment with one hour, on the basis that she was pain-free and stable as per handover from Radiology staff. This document summarises the observations of Mrs Pattinson while at Sale as follows:

- Vital signs taken and recorded on CGHS Special Purpose Observation Chart, on 9 occasions, approximately every 30-45 minutes.
- Patient was mildly tachycardic on 5 of the 9 occasions.
- The patient was febrile at 37.9 at 18.45pm.
- The patient's BP was never below 100 systolic from the records.
- IV fluids ordered by Dr Gan – Normal saline1L 8/24 and commenced 19:35pm
- The patient never had documented abdominal pain while in the ED.
- The patient had 225mls of urine output in total documented between 17:10 and 20:20.

The document also states that the ultimate handover of Mrs Pattinson would have been a verbal handover to ambulance staff and is based on the ED documents and other notes about the patient. Pam Smith, the triage nurse, had no independent recollection of the events.

Dr Melinda Gan provided a statement to the Coroner, dated 15 March 2012, in which she outlined that Mrs Pattinson was referred by Yarram Hospital for radiological investigations (V/Q scan) and transfer back to Yarram Hospital after those investigations. Dr Gan stated "According to Yarram Hospital notes, the referral was made due to the patient feeling breathless." Dr Gan states that she did not receive a handover from the Radiology Department or from Yarram Hospital". Dr Gan stated the following:

> "Based on the medical history and physical examination findings that I obtained from Mrs Pattinson, I had not considered bowel obstruction to be a diagnosis. She was generally well, and did not vomit in the Emergency Department. She did not have acute abdominal pain or tenderness and she had normal bowel sounds.
> Mrs Pattinson was assessed as having dyspnoea requiring a V/Q scan, which was found to be negative. No further radiological investigations were considered to be required in the Emergency Department.
> As the discharge plan recorded, the patient was assessed as being medically stable, and suitable to be transferred back to Yarram Hospital for the General Practitioner to continue management. She was informed that she can return to Sale Hospital if there are any further concerns."

Dr Gan appears to have had a copy of the Yarram Hospital progress notes at the time of her investigation, but those did not include the initial ambulance notes from 29 April 2008, her blood test results, her medication chart or her input/output chart.

Day Four – Saturday 3 May 2008

Hospital Records

The morning nursing notes indicate that Mrs Pattinson had a restless night and had only small amounts of urine output. She did not have a temperature and her oxygen saturations on room air were between 85-87%. This was increased by the provision of oxygen. Mrs Pattinson did not want anything to eat or drink.

Dr Zafar reviewed Mrs Pattinson at 8.45am and noted that her colour was good and her GCS was 15/15. He reinserted her IV fluid, which had been removed at 5.30 that morning, with a nursing note indicating that "IV tissued". Importantly, he noted that her abdomen was "bloated, but not tympanatic; feels very hard". He also notes that "there is an umbilical hernia – pt is awaiting an operation in June 2008". Dr Zafar requested an enema for Mrs Pattison.

The nursing notes completed at 1.40pm outline that Mrs Pattinson received some result after the fleet enema. She was reported to be "complaining of pain and discomfort in the midriff area. The nursing notes for the morning were written at 1.40pm and state the following:

> Pt very tired and lethargic today. Given fleet enema i/c some result. Pt complaining of pain and discomfort in the midriff area. Given heat pack to place on area with some relief. At 11.00hrs Pulse 123, Resps 37. Urine measured FWT and charted Weight increased 3.5kg since 1/5/08. AT 1300 hrs Bev's daughter rang, very concerned about her mother's health, said that Bev had told her sister not to come and visit because she is too sick. Enquiry referred to RND1".

At 2.30pm, Dr Zafar reviewed Mrs Pattinson, noting that she looked "palar (sic) and uncomfortable". He noted that she was still vomiting, that her abdomen was "protruding", "dull B/S (bowel sounds) diminished. Has passed very little stool two days ago, Fleet enema also did not relieve her". Dr Zafar then notes that he had a discussion with a Surgical Registrar at CGHS for possible surgery "in view of her para umbilical hernia".

Dr Zafar then organised for Mrs Pattinson to be transferred to the Sale Hospital for surgical review. He prepared a letter of referral to go with her. That referral letter states the following:

> "I reviewed her this morning and found that her abdomen is distended not resonant but dull. She continues to vomit in spite of antiemetic and rehydration. She does have an umbilical hernia which is reducible non-tender. Her bowel sounds are not indicative of obstruction. She is haemodynamically stable and has an I/V line in situ. Her abdominal distension is now affecting her breathing and needs to be looked into. She requires a CT scan of abdomen and ? surgical intervention. Could you please assess her and take over the further management."

Nurse Gwlenys Christinson wrote progress notes on this date to the effect that, just prior to the proposed transfer to Sale hospital, a Division 2 nurse asked her to "check Beverley Pattinson as she felt she was not stable enough for a div 2 to be the escort". At 3.10pm, she found Mrs Pattinson to be conscious but with oxygen saturations of 86%. She noted "grunting resps" and "unable to find B/P". Her heart rate was 120. Her feet were elevated and oxygen commenced at 8 litres. She wrote "soon after Beverley found to be vomiting copious amounts of foul smelling gastric fluids. Turned on side. Beverley became unconscious – Approx 15.17. I called for assistance and crash cart. Ambulance officer Phil Worboys and Dr Zafar quickly in attendance. CPR commenced 15.20 – monitor attached. Suction of copious amounts of gastric fluid. Approx 1900 mls and large amount in bed. Adrenaline 1:10000 IV STAT – 15.25. Tubed - 15.30. Size 7 tube. CPR continued. Non shockable rhythm, found to be asystole. Dr Zafar called event @ 15.35."

Evidence at Inquest

Dr Zafar reviewed Mrs Pattinson at 8.45am on 3 May 2008, not having seen her since her admission on 29 April 2008. Dr Zafar confirmed in his evidence that he had reviewed the previous days' nursing progress notes prior to seeing Mrs Pattinson. On examination, he noted that her abdomen was "bloated but not tympanitic", meaning that there was not a sound which indicated the presence of gas, which, had that been there, would have been, he said, "one of the signs of obstruction or a partial obstruction". He stated that an abdomen which is bloated and feels very hard "could be the sign of obstruction", but he went on to say that another explanation could be that a patient could be "guarding" or "tensing the muscles".

Dr Zafar stated in evidence that, in the course of his abdominal examination, he palpated the site of the abdomen and the inguinal hernia area. Of the latter, he stated "I don't recall any tenderness. I wouldn't have considered it to be an inguinal hernia at that time". He confirmed that he examined the area, did not find an inguinal hernia and as it was a negative finding, he did not record it. He did, however, make a note that Mrs Pattinson was awaiting surgery for an umbilical hernia only. He said he made that note "maybe because it was more apparent". He also states that the umbilical hernia was reducible on examination, but he made no note to that effect.

Dr Zafar agreed with the proposition that his notes do not, at any time, refer to Mrs Pattinson having an inguinal hernia or that he had examined her for the same, whether or not there was any positive or negative finding. He also agreed that the first reference to any hernia in his notes is that of 8.45am on 3 May 2008 and that that note referred only to the umbilical hernia.

Dr Zafar ordered an enema for Mrs Pattinson, for the following reason: -"sometime it can happen where the patient who had not passed a stool for a few days especially with Beverley in that case you give them an enema to evacuate the bowel and they feel better, the bloating feeling goes away"[46]. In addition, he stated "I did give her fluids as well and yeah, if there was obstruction – sometimes because they didn't pass a stool so it could be a simple constipation, you go

[46] Ibid, p53

over the simple things first so if it was constipated then you could give an enema."[47] He also stated that he intended to await the outcome of the enema prior to any further investigation, which might have included an abdominal x-ray or a CT scan of the abdomen, which would have required a transfer to another hospital. He did not order either investigation at that time, even though he was considering the possibility of an obstruction at this point[48].

Dr Zafar was conscious that Mrs Pattinson had been treated by other medical practitioners for three days, including having been seen at Sale Hospital and so "if they had not discovered, I assumed that there would be no inguinal hernia".[49]

The next medical review by Dr Zafar was undertaken at 2.30pm as a result of being called in by the nursing staff. He reviewed the results of the enema, as a result of which "when I discovered that the enema did not make a big difference, then I considered that it could be obstruction and I discussed with the surgical registrar at Central Gippsland Health Services at Sale"[50]. Dr Zafar confirmed that, at that point, he assumed that Mrs Pattinson had an obstruction. Dr Zafar then went about preparing a referral letter to CGHS at Sale. He stated there that the bowel sounds "were not indicative of bowel obstruction", despite forming the view himself that Mrs Pattinson probably had an obstruction. He did this, he stated, to give them all the findings of the clinical examination and leaving it up to them to assess the patient. He refers, in this referral letter to the existence of an umbilical hernia and makes no reference to an inguinal hernia. In evidence, Dr Zafar agreed that, had he known about the inguinal hernia and that Mrs Pattinson was awaiting surgical repair of same, he "maybe would have considered it and notified them".[51]

Marie Cropley gave evidence that she attended to see Mrs Pattinson at approximately 9am on 3 May 2008. Her handwritten notes, prepared later that day, indicate that she found her "very ill". She returned later that day at about 2pm. She was present until Mrs Pattinson passed away and refers to extensive vomiting prior to passing away.

The first reference on this day to vomiting is that of Dr Zafar at 2.30pm at which point he stated that she was "still vomiting". Her first episode of vomiting for that day is not recorded, and, as such, there is no comment on the frequency, colour or smell of the vomit.

Of the time frame and process within which a hernia becomes strangulated, Dr Winter stated "if there's a defect in the abdominal wall and a small part of the bowel protrudes through it, not all the bowel, you can have a grumbling difficult to diagnose clinical picture which will eventually – usually will present itself either as the patient complaining of a lot of pain and a fairly hard lump or this unexplained deterioration in their clinical state, and you would hope though that it will either unblock itself or progress to a full obstruction, so that it could show itself one way or the other". As to the time frame, Dr Winter stated "if you completely block the bowel immediately in one go, you've probably got six or eight hours before you will be extremely unwell. It would suggest that that didn't happen in this case. It may have happened on the last day but I think we're left to speculate about that".

Review of diagnosis and treatment

Dr Winter gave evidence that, in his view, there had been a diagnostic error when Mrs Pattinson first attended the Yarram Hospital. This type of error, in his view, is the hardest type of error to prevent. He gave evidence about the nature of the work conducted at the Yarram Hospital, namely that it is not a procedural hospital and they do not manage post-operative or acutely unwell patients. However, although cases like Mrs Pattinson's presentation are rare at the hospital, the hospital has a risk management and incident review process which has produced changes in how such cases are managed. Chief among those is what is termed an escalation process, where if someone on staff thinks a diagnosis may be incorrect or a management or decision-making process is flawed, it can be raised to a more senior level. By way of example, Dr Winter said he was "not infrequently" consulted on cases for clinical discussion. Dr Winter was of the view that the process in place now at Yarram would minimise the risk of an adverse event for a patient. In addition, he is regularly involved in case reviews and clinical risk reviews. Mrs Pattinson's treatment and death, whilst under the care of Yarram Hospital have been recognised by the hospital as a significant incident.

Dr Winter also stated that Yarram Hospital attempted to conduct a peer review into Mrs Pattinson's case, but that Dr Zafar had already moved onto other roles and for reasons unknown, did not respond to requests to participate.

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[47] Ibid, p58
[48] Ibid.
[49] Ibid, p56
[50] Ibid, p60
[51] Ibid, p69

In relation to Dr Testro's diagnosis, Dr Winter agreed that Dr Testro had prior knowledge of Mrs Pattinson's need for hernia repair. He stated "He (Dr Testro) had already given evidence about what he found when he examined the patient and it did appear that there'd been significant improvement clinically by the next day, and indeed that was reflected in the assessment of the patient when the biochemistry came back after rehydration." He went onto state "Can I come back to the importance of the initial assessment and all available information. Without the ambulance report and perhaps without the comments that some of the family have made, which I assume would have been expressed at the time, without that information then I think the case looks less like that of a bowel obstruction. But with that additional information it would seem completely logical to me that that diagnosis should be excluded or at least consideration given to it in the documentation".

Dr Winter also agreed with Counsel for Dr Testro that Dr Testro's medical management of Mrs Pattinson had been appropriate, given his understanding and that he had pursued other investigations in relation to her ongoing issues, particularly in relation to her lung capacity.

Autopsy

An autopsy was performed by Dr Nikunj Patel, under the supervision of Dr Norman Sonenberg, Pathologist at the Latrobe Regional Hospital. The cause of death was formulated as "severe dehydration and renal complications secondary to intestinal obstruction due to inguinal hernia". The examination found "the peritoneal cavity contained 200ml of ascetic fluid. Evidence of inguinal hernia was present along with the presence of necrotic/gangrenous small bowel in the inguinal canal. The irreducible inguinal hernia involved 65mm length of small bowel which showed brown/black coloured discolouration, dull external appearance and necrotic areas. Significant narrowing of the lumen of small bowel was evident, measuring less than 8mm in diameter at the site of constriction at the inguinal ring".

The summary of post mortem findings was as follows:

1. Inguinal hernia along with nectrotic small bowel secondary to intestinal obstruction;
2. Severe dehydration
3. Renal failure (in correlation with antemortem investigations).

Findings

Firstly, it's important to note that the inquest process had the benefit of taking evidence in relation to decisions which occurred in 2008 and with the benefit of hindsight.

In relation to Dr Zafar's assessment of Mrs Pattinson on 29 April 2008, I have a number of concerns about the examination, the notes taken and the diagnosis reached. Firstly, there is a significant question about whether Dr Zafar familiarised himself with the Ambulance notes prior to his assessment. His hospital notes make no reference to having done so and he had no memory of having done so. There is no evidence, either in his notes or viva voce, that he was aware of the colour of the vomited fluid over the previous two days, nor that he was aware of the medical history relating to the pending surgery for the umbilical or inguinal hernias. He makes no reference to either of those important concerns in his notes. I find that Dr Zafar did not review the notes of the ambulance officers at any time prior to his diagnosis. This failure was significant, in that the colour of the vomited fluid was a strong indicator that Mrs Pattinson was experiencing an event in relation to her lower abdomen, most notably a bowel obstruction. That, in combination with the fact that she was awaiting surgery for repair to two abdominal hernias, which was contained in the ambulance notes and ought to have formed the basis for Dr Zafar to exclude the possibility of a bowel obstruction right from the start.

If Dr Zafar did, in fact review the Ambulance notes, he failed to note those symptoms and concerns in the progress notes, thereby failing to properly incorporate all relevant historical and medical issues in the admission notes, which would form the basis for his diagnosis and the subsequent review and treatment by other doctors and nurses. If he did read the Ambulance notes, he failed to properly regard the symptoms outlined as indicative of the possibility of a bowel obstruction and he failed to list it as a potential diagnosis and to exclude it as a possibility.

Given that subsequent practitioners were unlikely to review the ambulance notes, Dr Zafar's responsibility was to include all relevant observations, examinations and history into the admitting notes. His notes were inadequate and flawed in this regard.

I find that Dr Zafar did perform an abdominal examination on Mrs Pattison. However, his evidence in relation to the presence of the hernias was inconsistent and unconvincing. If he did, in fact, locate the two hernias, the failure to note them, to describe them, to take them into account in his diagnosis, is concerning. The other conclusion is that he did not, in fact, locate the hernias at the time of this first assessment, which provides an explanation as to why they were not noted and not taken into account. I am of the view that Dr Zafar did not, until 3 May 2008, know of the presence of the reducible umbilical hernia and that he did not know, at any time of the inguinal hernia. This is supported by the absence of any reference to the inguinal hernia in his referral letter to the surgical team at Sale Hospital on 3 May 2008. I do not accept his evidence that he was aware of the presence of both hernias at the time of the first assessment. The Yarram Hospital was described as a non-procedural hospital and one where serious conditions such a bowel obstructions would not be managed. Dr Zafar had many years' experience in emergency wards. Dr Testro was not a trained emergency specialist. He was, however, a very experienced general practitioner and an experienced hospital medical officer.

In coronial investigations, the standard of proof which applies is the civil standard – that of the balance of probabilities. That standard is often set out as that described by Latham CJ in *Briginshaw v Briginshaw (1938) 60 CLR 336 at 343-44* where his Honour stated:

> "There is no mathematical scale according to which degrees of certainty of intellectual conviction can be computed or valued. But there are differences in degree of certainty which are real and which can be intelligently stated, although it is impossible to draw precise lines, as upon a diagram, and to assign each case to a particular subdivision of certainty. No court should act upon mere suspicion, surmise or guesswork in any case. In a civil case, fair inference may justify a finding upon the basis of preponderance of probability. The standard of proof required by a cautious and responsible tribunal will naturally vary in accordance with the seriousness or importance of the issue."

Dixon J also stated in the same case that:

> The seriousness of an allegation made, the inherent unlikelihood of an occurrence of a given description, or the gravity of the consequences flowing from a particular finding are considerations which must affect the answer to the question whether the issue has been proved to the reasonable satisfaction of the tribunal. In such matters, "reasonable satisfaction" should not be produced by inexact proofs, indefinite testimony or indirect inferences".

That standard requires, on the basis of legal precedent, that I would need to be satisfied on the balance of probabilities that the standard of care provided to Mrs Pattinson was a departure from the reasonable standards of behaviour which will ordinarily be required and must be properly established.[52]

It is my view that Dr Zafar's failure to read the ambulance notes and to conduct a thorough abdominal examination fell short of the standard of care required in the circumstances. The ambulance notes were sufficient to alert Dr Zafar to the possibility of the presence of a bowel obstruction and if that diagnosis had been adopted as a possibility, the treatment thereafter should have been to investigate that possibility. Ideally, Mrs Pattinson should have been moved to a hospital with the capacity to carry out the relevant tests, namely the abdominal x-ray and of abdominal CT scan. At the very least, Mrs Pattinson should have been treated as outlined by Dr Winter, namely admitted, the administration of IV fluids and the insertion of a nasogastric tube. It would not have been unreasonable, in the circumstances, to order an abdominal x-ray the next morning. Dr Zafar, although he admitted her to hospital, did not order IV fluids and did not insert a nasogastric tube to empty her stomach contents. The failure to establish IV fluids delayed her rehydration by several hours and thereby not relieving, as early as possible her symptoms of dehydration. Dr Zafar's actions in referring her to the Sale Hospital, on Friday 3 May 2008, for review and management were appropriate but were not timely enough.

Dr Zafar was also the treating medical practitioner on Saturday 3 May 2008 when Mrs Pattinson's hitherto undiagnosed condition deteriorated to her death. His actions in ordering an enema, while unlikely to have worsened her condition, were not, in my view, sufficient to deal with her clearly deteriorating condition. She was, at that point, becoming significantly unwell after several days of improvement. Her condition at the morning review was serious enough to have warranted immediate radiological investigation, if not referral at that point to another hospital for surgical review.

Of Dr Testro's treatment, from 30 April 2008 until Friday 2 May 2008, he was certainly worried about Mrs Pattinson and the tests he ordered were appropriate in the circumstances. However, he relied overly on the absence of abdominal pain or tenderness and thereby failed to consider the possibility that the hernias that he already knew about, might be the source of the problem. Should he be criticised for not ordering additional blood tests to check for lactate levels? Dr

[52] Chief Commissioner of Police v Hallenstein (1996) 2 VR 1

Winter says no, as that level of interpretation skill is not typically present in general practitioners. Would this level of acidosis have been picked up in a larger emergency department? The answer is – most likely.

Was the treatment provided by Dr Testro reasonable? On one hand, Dr Testro was relying on the assessment and diagnosis reached by Dr Zafar, which, as I have previously stated was flawed. Therefore, he was not aware of the indication in the ambulance notes of the colour of the vomited fluid. However, he could have referred to those notes himself and didn't. Even when, at the hearing, he was asked what he would have done differently had he had those notes, he indicated that he would not have acted differently, in that he would still have been of the view that Mrs Pattinson had gastroenteritis and he would have managed her in the same way. Dr Testro also took no small comfort in the improvement shown in Mrs Pattinson in the course of continued hydration. He assiduously monitored her blood test results, he ensured her urine output was measured and he remained concerned about her ongoing poor oxygen saturations. On the other hand, Dr Testro had personal knowledge that Mrs Pattinson was awaiting surgical repair of two abdominal hernias, that she had been vomiting for two days and, even with that information alone, he ought to have ordered an abdominal x-ray or abdominal CT scan to exclude the possibility of a small bowel obstruction. On balance, I do find that Dr Testro's treatment of Mrs Pattinson fell below the standard to be expected of a general practitioner in a non-procedural hospital. However, he failed to recognise the extent of the condition suffered by Mrs Pattinson.

I accept that Dr Testro was extremely concerned about Mrs Pattinson and that he was at pains to investigate what he thought were potential diagnoses. However, they were not the correct diagnoses.

Of the investigations performed at the Central Gippsland Health Service at Sale, it appears that the Radiological investigations did not find evidence of a bowel obstruction, per se, and nor were they asked to. Their investigations were in relation to the performance of Mrs Pattinson's lungs and the site of her upper abdomen. It is not known why there was a reference to a potential bowel obstruction in the handover to the triage nurse in ED. However, Dr Gan's examination appears not to be related specifically to that query. Her examination was performed as a matter of course, as Mrs Pattinson was awaiting her transfer back to the Yarram Hospital. Dr Gan's clinical findings did not raise a suspicion of a bowel obstruction, nor did she have the full history relating to the blood tests and urine input/output. Dr Gan noted the presence of the abdominal hernia which was repaired some three years earlier. Her clinical examination was thorough and revealed no concerns which required further investigation or management at the CGHS in Sale. The reference to a potential bowel obstruction in the triage document, when Mrs Pattinson went into the emergency department, appears not to have been communicated to Dr Gan nor was she requested to specifically examine Mrs Pattinson in this regard. The absence of any immediate positive findings did not create a concern with which to hold Mrs Pattinson for further investigation. In those circumstances, returning Mrs Pattinson to Yarram was not unreasonable.

Although the progress notes reveal that there was no vomiting between 30/4/08 and 3/5/08; that there were no reports of pain until the pain and discomfort in the midriff area reported on 3 May 2008, there were continued bowel sounds, there were a range of other symptoms, such as the persistent tachycardia, the low urine output, the weight gain, the lack of bowel movement, all of which were consistent with a deteriorating condition consistent with a progressing bowel obstruction.

Successive medical practitioners failed to take into account the entire picture of Mrs Pattinson's clinical condition and in so doing, failed to diagnose the underlying cause of her illness. By this, I mean there was a failure to recognise and act on the colour of the vomited material prior to admission, a failure to find a cause for the amount of liquid being administered to Mrs Pattinson and the very small amounts emerging. There was a failure to understand the significance of the acidosis which was revealed in the blood test results. There was a failure to properly consider her existing hernias as a possible cause for concern and to conduct a thorough investigation of that possibility. Instead, there was an over-reliance of a reported absence of pain, tenderness and feeling, as sufficient to discount those as a possible cause. This, when it was known that both of her abdominal hernias required surgical repair. As a result, Mrs Pattinson did not have the investigations that she should have, namely the abdominal x-ray and/or the CT scan of her abdomen. Had those investigations taken place, there is a likelihood that her partially or completely obstructed bowel could have been subject to surgical intervention and her death prevented.

It is clear that Mrs Pattinson's presentation, in the days post her admission, were not typical of a person presenting with a small bowel obstruction. On receiving fluids, her renal function and blood result numbers were improving. Mrs Pattinson continued to deny pain and Dr Testro and Dr Gan (at Sale) did not note anything untoward in their abdominal examinations, other than a "tense" abdomen when Dr Testro was performing an internal examination on Friday 2 May 2008. This was also the case when Mrs Pattinson was examined at the Sale Hospital on the evening of 2 May 2008. This atypical presentation, in addition to the flawed diagnosis on the admission date, resulted in a contentedness to treat

her in an environment where she should not have been, particularly as her stay wore on. Mrs Pattinson was extremely unwell on her admission, recovered in some respects upon hydration, although to the trained emergency physician there were ongoing signs that all was not well. Those signs: the acidosis, the tachycardia, the low oxygen saturation, the continued low output of urine, and the reported distension by Mrs Pattinson to family members, were all indicators which, in a hospital with trained emergency physicians and surgical staff may well have resulted in an earlier, correct diagnosis.

Dr Testro did all he could, within the bounds of his expertise, to conscientiously diagnose Mrs Pattinson's condition. Her presentation, although extremely serious, was, however, not recognised for what it was, nor was it sufficiently well investigated.

Recommendations

Mrs Pattinson's family made submissions in relation to recommendations that I should make, a number of which have been incorporated into those below.

My recommendations, which flow from this inquest are as follows:

1. That a copy of these findings be sent, by way of notification to the Australian Health Practitioner Regulation Agency (AHPRA) with a view to investigation, by the Medical Board of Australia (Victoria) of Dr Zafar's involvement in the assessment and treatment of Mrs Pattinson;
2. That Yarram and District Health Service ensure that all patient records, including where practicable, GP records, be sourced and available for treating medical practitioners for the purposes of reviewing a patient's medical history;
3. That Yarram and District Health Service ensure that all Ambulance records are reviewed by treating medical practitioners and nursing staff from the time of arrival at the hospital, in order to ensure that all relevant observations, information and records are communicated to the treating professionals;
4. That Yarram and District Health Service ensure that staff are aware of the necessity to incorporate the records of Ambulance Service members into their initial notes and assessment of patients;
5. That Yarram and District Health Service ensure that all medical practitioners take a full and comprehensive history in relation to patients seen at the hospital, with notes that incorporate all observations and examinations, not just those where there has been a positive finding;
6. That Yarram and District Health Service ensure that notes made by medical practitioners and nursing staff be initialled at all times, to ensure that authorship can be established;
7. That Yarram and District Health Service ensure that record keeping in relation to patients follows best practice principles, particularly in relation to the notation of all tests requested and results obtained. This includes investigating whether electronic methods of compiling information would be preferable to the current paper-based method.
8. That Yarram and District Health Service ensure that further training is provided to its medical practitioners in relation to the range of interpretation of blood test results;
9. That Yarram and District Health Service establish protocols for communicating with other hospitals, in relation to patients who are referred for services not available at Yarram, to ensure that all relevant observations, examinations and results are communicated back to treating practitioners at Yarram.

Coroners Court of Victoria

Signature:

F A Hayes

Coroner

Date: 29 July 2013

Distribution

1. Members of Mrs Pattinson's family
2. The Australian Health Practitioner Regulation Agency (AHPRA)
3. Dr Zafar Zafar
4. Avant Lawyers, on behalf of Dr Testro's estate
5. The Yarram and District Health Service
6. The Central Gippsland Health Service
7. The Minister for Health, Victoria