



NEW SOUTH WALES STATE CORONER

Name of Deceased: Beverly Ann Murphy
File Number: 0701/2008
Hearing Dates: 23, 24 & 26 April 2012 & 10 – 11 May 2012
Location of Inquest: Parramatta and North Sydney Local Courts
Date of Finding: 14 June 2012
Coroner: Magistrate Scott Mitchell , Deputy State Coroner

Representations:

- Ms K Stern of Senior Counsel, instructed by Ms A McCarthy, Solicitor of the Crown Solicitor's office, appeared to assist the Coroner
- Mr R Weinstein of Senior Counsel for the South Eastern Sydney Local Health District and Professor Donald Marsden
- Mr Hewson of Counsel for Dr Gareth Owen
- Mr Maybury of Counsel for Professor Graham Newstead
- Ms N Rutland of Counsel for Registered Nurse Ester Castillo
- Mr G Gregg of Counsel for Dr Michelle Wong
- Ms I Alexander, Solicitor for Registered Nurses S.A. Hughes and RN Tomohiro Yamada

INQUEST INTO THE DEATH OF BEVERLY ANN MURPHY.

1. This is an inquest into the death of Beverly Ann Murphy which occurred at *Prince of Wales Hospital* at Randwick at about 6.02 pm on 28 April, 2008. Mrs. Murphy was seventy years of age at the time of her death. She lived with her since deceased husband at Arian Park, near Temora in southwestern New South Wales and was survived by her husband, children and grandchildren.

Mrs. Murphy

2. Beverly Ann Murphy, whose maiden name was Fry, was born on a dairy farm near Bellingen in northern New South Wales on 14 January, 1938. She trained as a nurse but, in the course of a long and happy life, worked in a variety of occupations including running a general store. In 1958 she married Kevin Murphy and most of their married lives lived in and around the MIA and the Monaro district at places such as Leeton, Goulburn, Canberra, Murrumbateman, Reid's Flat and, finally, Arian Park near Temora.
3. Mrs. Murphy had six children and sixteen grandchildren and, together with her husband, they were the focus of her life. The inquest was told that she was always available to help and care for her family through good times and bad. There were tough times and, at one stage, the six children and their parents were living in a caravan but it seems that, even in the face of those difficulties, Mr. and Mrs. Murphy managed to make a safe and loving home for their family. Her eldest daughter described her as "*good hearted. A strong lady for whom nothing was a problem.*"
4. Mrs. Murphy is deeply missed by her children and grandchildren and all who were involved in the inquest would, I am sure, wish to join in expressing our sympathy on the passing of this strong, brave and loving lady.

The Inquest

5. Counsel assisting the Coroner was Ms. K. Stern of Senior Counsel instructed by Ms. A. McCarthy, solicitor, of the Crown Solicitor's Office. Also appearing were Mr. R. Weinstein of Senior Counsel for the *South Eastern Sydney Local Health District* and for Professor Donald Marsden, Mr. Hewson of Counsel for Dr. Gareth Owen, Mr. Maybury of *Counsel* for Professor Graham Newstead, Ms. N. Rutland of Counsel for Registered

Nurse Ester Castillo, Mr. G. Gregg of Counsel for Dr. Michelle Wong and Ms. L. Alexander, solicitor for Registered Nurses S.A.Hughes and RN Tomohiro Yamada. The *Officer in Charge* of the police investigation is Senior Constable Michael Bartle.

6. The hearing took place at Parramatta on 23, 24 and 26 April, 2012 and at North Sydney on 10 and 11 May, 2012. Those appearing to give evidence included: -

- Professor Donald Marsden, retired Deputy Director of the Gynaecological Cancer Centre at the *Royal Hospital for Women*;
- Professor Graham Newstead, Clinical Director of the Division of Surgery and Chairman of Colorectal Surgery at *Prince of Wales Hospital*, Randwick;
- Dr. G. N. Owen, formerly Prof. Newstead's Colorectal Fellow at *Prince of Wales*;
- Dr. Michelle Wong, *ENT* surgeon;
- Registered Nurse Tomohiro Yamada;
- Registered Nurse Ester Castillo;
- Dr. Naven Chetty, formerly Prof. Marsden's Gynaecological Oncology Fellow at the *Royal Hospital for Women*;
- Dr. Pinar Kozan;
- Dr. Santosh Parab, former Intensive Care Registrar at *Prince of Wales Hospital*;
- RN Catherine Weir, Nurse Unit Manager of *ICU* at *Prince of Wales Hospital*;
- Professor Neville Hacker;
- Dr. Nikki Yeo;
- Dr. Niall Jefferson; and, jointly,
- Professor Thomas B. Hugh, and
- Professor David L. Morris.
- Mrs. Cathryn Irwin, a daughter of Mrs. Murphy spoke on behalf of the family.

The Autopsy Report

7. After *post-mortem* examination, the cause of Mrs. Murphy's death was described by Dr. M.M. Orde, forensic pathologist of the *Department of Forensic Medicine* at Glebe in his Autopsy Report of 2 December, 2008 as *Hypoxic/Ischaemic Encephalopathy consequent upon Cardiorespiratory Arrest and Compromised Airflow through Tracheostomy upon Turning of a Patient in a Hospital Bed*. Other significant conditions contributing to the death but not directly relating to the disease or condition

causing it are listed as *Dilated Cardiomegaly, Multi-organ failure as a Consequence of Wound Dehiscence following Hysterectomy for Endometrial Carcinoma and Iatrogenic Small Bowel Perforation during Attempted Repair Thereof, Obesity and Pre-existing Intra-abdominal Adhesions following Previous Abdominal Surgery.*

Surgery on 2 April, 2008

8. In his Autopsy Report, Dr. Orde noted that, for some years, Mrs. Murphy had experienced vaginal bleeding and that, in December, 2007, an ultrasound scan had revealed thickening of the *endometrium* so that a *laparotomy, total abdominal hysterectomy* with bilateral *salpingo-oophorectomy* and *omentectomy* was undertaken by Professor Donald Marsden and his fellow, Dr. Navan Chetty, at the *Royal Women's Hospital* on 2 April, 2008. Inter-abdominal adhesions were noted at surgery and pathological examination of the resected tissue confirmed the diagnosis of *endometrial cancer*. It appeared and Dr. Orde later confirmed that the tumour had successfully been completely resected. According to the *Operation Report* which was composed by Dr. Chetty, "*the vault was closed with stitch ties and interrupted sutures*" and "*2 Polysorb mass closure of abdomen*" and "*staples to skin*" were noted.
9. Mrs. Murphy had undergone previous surgery including a *cholecystectomy*, an *appendectomy* and a *myomectomy* in 2005 and it was noted in 2012 that she was obese, weighing 120 kg with a *BMI* of greater than 40. She had ceased smoking in about 1996. She suffered from *asthma, non-insulin dependent diabetes* and *hypertension*. On the other hand, Mrs. Murphy was capable of caring for herself and her husband and of carrying out her normal daily activities.
10. According to Professor Marsden, the operation of 2 April was an "*extremely difficult*" one. The *Discharge Summary* prepared at the *Prince of Wales ICU* records "*two intraoperative iatrogenic bowel perforations – repaired.*"

Recovery from Surgery of 2 April

11. Mrs. Murphy made a poor recovery from surgery on 2 April, 2008. Oozing from the wound was noted and she had difficulty with pain management and, in particular, *abdominal distension* and right sided pain were noted along with *atrial fibrillation* and *pulmonary oedema*. On 4 April, Dr. Chetty noted "*watch wound discharge – ?*

dehiscence” and, on the following day, “*even if dehiscence, would not want to return to OT unless obstruction.*” In his written statement to the inquest, Professor Marsden explained this note by saying that “*in the absence of a demonstrated dehiscence or a continuing bowel obstruction, I would not re-explore a patient, particularly one as unwell as Mrs. Murphy, even though there was a slight chance of an undetectable dehiscence.*” Professor Thomas B. Hugh, an independent expert originally retained by GILD, has opined that “*once a firm diagnosis of a major abdominal wound dehiscence has been made, immediate re-operation is generally advisable if the patient’s condition permits*” but Professor Marsden’s point, in which he was joined by Dr. Chetty, was that, really, Mrs. Murphy’s condition, given her co-morbidities, argued against an immediate return to theatre, at least until the presence of dehiscence was irrefutable.

12. The *progress notes* of 4, 5 and 6 April indicate that Mrs. Murphy had vomited on each of those days and, on 6 April, the vomitus was described as “*?? faecal like*” and a *bowel obstruction* was queried. Dr. Chetty’s note on 6 April records “*AXR – if small bowel obstruction – NGT if no evidence of obstruction – continue.*” An x-ray on 6 April failed to persuade Professor Marsden and Dr. Chetty of the presence of bowel obstruction although Professor David Morris, looking at the pictures afterwards, saw significant evidence of obstruction and regarded the report as “*highly suggestive of bowel obstruction.*”
13. A quantity of green-brown fluid was drained off and Mrs. Murphy’s pain and vomiting continued and, on 7 April, the notes record “*?? Obstruction*” and it was decided to have a *CT* scan on the following day. The report of the *CT* scan of 8 April is part of **EXHIBIT 3** which notes “*a moderate divarication of the recti with bowel extending to the skin surface in the region of the incision. There is no evidence of wound dehiscence or of incisional hernia... ..the appearance suggests a partial obstruction in the region of the terminal ileum.*” The ileum is defined as “*the third portion of the small intestine extending from the jejunum to the ileocecal opening.*”
14. According to Professor Marsden, he never asked to see the x-ray pictures being, as he saw himself, untrained and unqualified in radiology and his recollection is that the report was unavailable to him. Dr. Chetty could not recall whether he had seen an x-

ray picture. As to the CT scan of 8 April, the evidence does not disclose whether Professor Marsden saw the pictures but he told the inquest that he spoke to the radiologist and was told that there was no dehiscence. Professor David Morris, an expert approached by the Coroner, was critical of these failures, holding to the view that, whatever the radiologist may say, the surgeon has a duty to satisfy himself of these matters.

15. The CT scan performed on 8 April, 2008 demonstrated loops of bowel immediately under the skin, consistent with wound dehiscence and suggested *“a partial obstruction in the region of the terminal ileum.”* The ileum is defined as *“the third portion of the small intestine extending from the jejunum to the ileocecal opening.”* Looking at the pictures afterwards, Professor David Morris saw significant evidence of obstruction and thought that the report was *“highly suggestive of bowel obstruction.”* Of the CT report of 8 April, he thought the CT report *“...was totally inadequate. The description of there being small bowel immediately beneath the skin followed by the statement that there was no dehiscence of incisional hernia is simply incompatibleThe description of small bowel of diameter 38mm as being ‘mild dilation’ is also quite remarkable. Small bowel of diameter 3.8cm is very distended.”* According to Dr. Morris, *“a cursory examination of these scans would have made the diagnoses of dehiscence and that of small bowel obstruction”* and he told the inquest that failure to view the scans may well have contributed to an undue delay in returning to theatre.
16. On the basis of the CT scan and continuing suggestions of *bowel obstruction* including on-going severe pain at the site of the wound which was hot to the touch and the drainage of large volumes of green fluid through the nasogastric tube, Professor Marsden booked Mrs. Murphy in for further surgery and she underwent a further procedure on 12 April, 2008 for *“repair of laparotomy wound dehiscence with possible bowel obstruction.”*
17. Whether Professor Marsden should have returned to theatre sooner and whether there was an inappropriate delay in undertaking the procedure on 12 April, 2008 is a principal focus of the inquiry.

Surgery on 12 April, 2008

18. At surgery on 12 April, 2008, the old incision was opened up by blunt dissection at the lower end of the wound. It was found that the small bowel was *dilated and oedematous* with multiple *adhesions* and had become caught up in the surgical wound in the abdominal wall which was breaking down. This is the condition known as “*wound dehiscence*.” Describing the procedure, Professor Marsden says he found “*sub acute*” bowel blockage and he explained that the presence of *exudate* was indicative not of *sepsis* but of the bowel having become obstructed by a loop. According to Professor Marsden, the bowel was freed and, when fully mobilised, the damaged bowel was *resected* and *reanastomised* by “*side by side, functional end to end anastomosis*” with staples. Of this operation on 12 April, Dr. Orde later wrote that “*the wall of the intestine was nicked... ...necessitating resection of part of the small bowel.*” In his witness statement, Professor Marsden noted that, in the course of freeing the bowel, several small perforations were made. While not making entirely clear what he thought was the cause of these perforations, Professor Marsden advanced, as his *hypothesis*, the possibility that they were a consequence of small “*stay*” sutures which do not enter the bowel cavity but are employed to hold the bowel steady. According to Helen Perrau, Mrs. Murphy’s daughter, Professor Marsden told her that the surgery of 12 April had revealed that the bowel had been stitched into the wound at the first operation but Professor Marsden denied that and said that what he had told Ms. Perrau was that “*the stitches we put in to hold wound have come apart and the bowel has come through a hole in the stitches and is sitting under the skin.*” Dr. Chetty gave the inquest to believe that such an event would have been most unlikely and Prof. Marsden denied Dr. Hugh’s speculation that these perforations had been made by his use of a *GIA* stapler in the process of performing the anastomosis. Further, Professor Marsden rejected the scenario which Professor Newstead thought he may have described to him, namely that the prongs of the *GIA* stapler may have perforated the *ileum*. Professor Marsden insists that he had never voiced any such speculation

19. In describing the procedure on 12 April, Dr. Chetty confirmed that wound dehiscence and herniation of the small bowel were present and he says that, during the division of the adherent bowel, a number of enterotomies occurred requiring repair as well as resection of the small bowel. This may be confirmed by the note on 12 April that “2 x

perforations intraop ... small intestine repaired” but it is not clear why the operation note prepared by Dr. Chetty does not more accurately reflect what he and Professor Marsden say actually happened. For example, in his witness statement, Professor Marsden’s only reference to the stapler is in reference to an *anastomosis* whereas the note records the use of the stapler in connection with the excision of the bowel and the closure of a small bowel defect. Further, Dr. Chetty in his witness statement speaks of a number of perforations occurring during surgery whereas the note records only one. Again, the pathology report relating to two segments of ileum, one 320mm x 25mm max. diameter and the other 110mm x 55mm max. diameter suggests two resections rather than one as noted. Perhaps Professor Marsden, who thought that it was not important to note the second resection, was correct when he told the inquest that the note is *“not a comprehensive description”* of the procedure.

Gynaecological Oncology Surgeons

20. When Professor Graham Newstead gave evidence regarding *“Dr. Marsden’s practices over a period of time,”* he recalled that Dr. Marsden *“would frequently need to call myself and other colorectal and sometimes general surgical colleagues during his operations when inadvertent damage to bowel had occurred.”* So concerned was Professor Newstead that he requested that a meeting be arranged between the Chairman of the Department of General Surgery and the Chairman of the Gynaecological Oncology Unit at the *Royal Hospital for Women* to discuss what he saw as a significant problem. Professor Newstead attended that meeting which, he recalled, *“strongly emphasised the importance of early and predictive consultation in relation to complex gynaecological oncology surgery especially when it was recognised that the surgery could prove to be very difficult and/or might involve the need to deal with involved or adherent bowel.”*

21. Expanding on his concerns, Professor Newstead expressed the belief that, generally speaking, Gynaecological Oncology Surgeons tend to be wanting expertise in handling the bowel components of their surgical procedures and he explained that *“when dealing with pelvic organs, there are frequently components of surgery involving the specialties of urology, gynaecology, colorectal surgery and, occasionally, vascular surgery, all of which require either particular expertise or certainly sufficient experience and training to recognise when collegiate support may be appropriate.”*

He thought that *“it may be reasonable to request that consideration be given by the appropriate Royal College to review the intestinal and colorectal components of training for gynaecological oncology surgery to determine whether the current training programme is adequate in this regard.”*

22. Professor Neville Hacker, the Director of the *Gynaecological Cancer Centre* at the *Royal Hospital for Women* and one of the convenors of the meeting sought by Professor Newstead told the inquest that he had spoken to Professor Marsden about the occasional need for early and predictive consultation with other surgical colleagues, particularly with upper abdominal surgeons. He said that he had stressed with Dr. Marsden the need for special care when dealing with bowels and he explained to the inquest that Gynaecological Oncology Surgeons were sometimes not trained specifically to deal with the duodenum and some other complicated pelvic procedures.

23. Professor Hacker thought that, only in *“exceptional circumstances”* would pre-surgery consultation with colorectal surgeons be indicated but he accepted that there might be cases where it would be. He thought that, in general terms, gynaecological oncology surgery involving the small bowel will not call for involvement by colorectal surgeons but that cases of bowel obstruction, peritoneal sepsis and fistulae certainly will. Professor Hacker appeared pleased to note that, in his view, Professor Marsden had *“a fairly low threshold”* in calling on colorectal surgeons for support.

24. Professor Hacker does not concede that skill of Gynaecological Oncology Surgeons is *“not ideal”* as Dr. Newstead maintains but he was prepared to acknowledge a continuing struggle to ensure that their training and experience enables them to identify those cases when it will be prudent to invoke the aid of urologists, colorectal surgeons and other surgical colleagues and where that may not be necessary. He expressed his regret that negotiations among the Royal Colleges in the 1980s, aimed at enhancing general surgical training for Gynaecological Oncology Surgeons, had foundered and, although not optimistic, expressed the hope that something might be done to revive those discussions. He thought, in fact, that Mrs. Murphy’s case might be a useful prompt for a resumption of discussions in this regard.

Recovery from Surgery of 12 April

25. After surgery on 12 April, Mrs. Murphy was transferred to *Prince of Wales Hospital* and placed in the *ICU*. The presenting problem was recorded as “*ABDO sepsis*” and she was treated with *IV Vancomycin* as a *one off* antiseptic and regular *Ceftriaxone* and *Metronidazole*. She remained very ill after the operation and, as Dr. Orde records “*subsequently developed signs of leakage of intestinal contents through small holes (fistulae) in the small bowel wall.*” On 13 April “*distension +++, hemodynamic deterioration and respiratory failure*” were noted. On 14 April, the notes speak of Mrs. Murphy’s wound leaking large amounts of yellow bile discharge and, next day, 15 April, when increased leakage of greenish bowel fluids was evident, the plan was to consult the colorectal surgeons and Mrs. Murphy was seen by Dr. Owen, the Colorectal Fellow.
26. On 16 April, there was another *CT* scan which, according to the report delivered to Professor Marsden, disclosed “*at least one discrete focus of fistulous communication between what appears to be a mid to distal loop of small bowel, extending into the subcutaneous fat of the right lower abdomen and appears to pass out to the skin surface*” together with a “*possible 2nd, very small fistulous communication of small bowel just to the right of the umbilicus into the subcutaneous fat....*” This was identified as demonstrating at least two (which later proved to be three) leaks, one from the stapled anastomosis.
27. On 18 April, 2008, there was a third operation, this time performed by colorectal surgeons, Professor Newstead and his fellow, Dr. Owen, when the *fistulae* were isolated and dealt with. The operation notes record the presence of florid intra-abdominal inflammatory changes and approximately 1 litre of purulent small bowel fluid was drained from the wound at the transverse part of the anastomosis. Two areas of necrosis in the abdominal wall were identified, one at the transverse staple line from an anastomosis and the other about 5-6 cm proximal to the anastomosis which, despite the views of Professor Marsden and, perhaps, Dr. Chetty, Professor Newstead and Dr. Owen both thought were “*in keeping with an injury from the tip of a linear cutting stapler.*”

28. Whether the surgical procedure carried out by Professor Newstead and Dr. Owen on 18 April should have taken place earlier is another focus of the inquiry.

The Tracheostomy

29. A very unwell Mrs. Murphy was returned to *ICU* where she was intubated and ventilated. In order to assure adequate ventilation on a protracted basis, Mrs. Murphy required the insertion of an endotracheal tube directly into the windpipe through the skin of the neck. This procedure known as a tracheostomy was successfully undertaken at *Prince of Wales Hospital* on 24 April, 2008 by Dr. Michelle Wong, then a fourth year Registrar in her final year of training as an *ENT* surgeon. She was assisted by Dr. Niall Jefferson. Dr. Wong described the surgical tracheostomy as the *gold standard* of tracheostomies “*because it is the safest option.*”

30. The operation notes make it clear that there was no *pre- tracheostomy assessment* because, as Dr. Wong explained, Dr. Robertson had already undertaken a preliminary assessment and because one cannot accurately determine which tube will be appropriate until one sees the trachea which she did, in theatre. If she were able to predict that a long tube - a size 8 *XLT* tube, would be appropriate for Mrs. Murphy, she was unable to confirm the same until the procedure had commenced and the trachea had been exposed.

31. Dr. Wong told the inquest that she was entitled to expect that, should an *XLT* size 8 tube be required, one would be available on the trolley which is maintained behind the operating suite and is brought into theatre when necessary. In the event, no such tube was available so, in its absence and as something of a compromise, Dr. Wong selected an *EVAC* tube from a range of tubes available on the trolley which included standard *Shiley* tubes and standard *Portex* tubes. Dr. Jefferson told the inquest that the tube ultimately selected was “*the biggest tube available.*” According to Dr. Wong, the planting of the tube was performed under direct vision and without complication and a good fit was obtained and Dr. Jefferson told the inquest that all the monitors had confirmed that the fit was a good one and that the tube had been well placed. Dr. Wong did not think that, as it turned out, there was any disadvantage in the use of an *EVAC* tube, it being only very slightly shorter than the preferred option but the fact remains that an *XLT* size 8 tube should have been on offer. That it was not

constituted, I believe, a *systems failure* but one which, as Dr. Collins points out in his statement, has now been corrected.

32. For reasons which I think both Dr. Wong and Dr. Jefferson failed satisfactorily to explain, the notes record a *XLT* rather than an *EVAC* tube having been inserted.
33. Having achieved a "*snug fit*" at the third ring of the trachea, Dr. Wong fitted a balloon style *cuff* and was satisfied that there was bilateral lung function and no escape of air.
34. Only the barest instructing for post operative care of the tracheostomy were given by the surgical team. The relevant notation reads: - "*ICU. Usual trache care. Not for trache change for 10 days.*" But it seems that the *ICU* staff were well aware of its appropriate care and well versed in dealing with such matters and Dr. Jefferson indicated to the inquest that detailed instructions in such circumstances would have been otiose. I think he may well be right in that regard.
35. There is no doubt that she was unwell but, in his statement of 16 November, 2011, Professor Newstead was able to write that, some days after surgery, "*Mrs. Murphy had been doing very well... ...The ileostomy was healthy and Mrs. Murphy's clinical parameters were improving.*" At about 2pm on 24 April, Dr. Meredith Gray, the *ICU* Resident, noted "*98% sats*" which indicates the tracheostomy's efficiency as an airway.
36. Dr. Jefferson was unaware that an *x-ray* had been taken but he returned to Mrs. Murphy's bedside at about 4.30pm, about four hours after the operation, and was satisfied that the tracheostomy was a success. "*She was doing fine*" is what he told the inquest. Perhaps Dr. Jefferson should have known that there was an *x-ray* but, as Mr. Gregg of Counsel pointed out, that *x-ray*, which was taken as a matter of course, was taken, primarily, for the purposes of the *ICU* in their monitoring of the lungs rather than for the purposes of Dr. Wong's team. At about 6pm, Mrs. Murphy was noted as "*breathing normally.*"

Dislodging the Tracheostomy Tube

37. According to *RN* Ester Castillo who took over as Mrs. Murphy's bedside nurse at about 7pm on 24 April, she was informed by the outgoing nurse, *RN* Tomohiro Yamada that there was a problem with Mrs. Murphy. She says that he had told her that Mrs. Murphy's tracheostomy tube was "*positional*" and that there was an audible leak of air around the area of the *stoma*. Ms. Castillo told the inquest that she thought "*positional*" had meant that Mrs. Murphy's tube remained in the trachea but that it may have moved from its original position. She said that she had understood *RN* Yamada, to be saying that something was wrong as to the position of the tube and also that he could hear an air leak from the vicinity of the *stoma*. *RN* Castillo did not make a written note of this very significant information which she says she was given at *handover* for the reason, as she told the inquest, that she forgot to do so. For his part, *RN* Yamada told the inquest that, although he had been given no specific instructions as to the care of the tube, he had been well aware when Mrs. Murphy returned from theatre how important it was to avoid dislodgment of the tube, particularly during turning of the patient in bed. His notes at 6pm record that Mrs. Murphy was "*well perfused*" and he noted an oxygen saturation level of 98-100% and that the patient was "*breathing comfortably...bilaterally*" with an elevated temperature of 39.5.
38. *RN* Yamada's evidence is that, if he used the word "*positional*" with regard to the tube, it was to indicate that it was in its correct position and he says that, although he certainly would have regarded an audible leak as significant, he cannot recall having noticed one and cannot recall having reported one to *RN* Castillo. Further, he assured the inquest that, had he noticed an air leak, he would have noted it unless it had occurred so late in his shift as to coincide with his handover to the incoming nursing team. Even then, Mr. Yamada said, had there been a leak, he would certainly have contacted medical staff. Instead, his impression throughout the latter part of his shift is that there was no significant deterioration in Mrs. Murphy's condition.
39. According to *RN* Castillo, having been warned by *RN* Yamada, she checked Mrs. Murphy's tracheostomy to find that, apparently, all was well. If her recollection of having been warned by the outgoing nurse that there was a problem with Mrs. Murphy's tracheostomy is correct, then it is a matter of real concern that Ms. Castillo did not report the matter to a doctor as a matter of some urgency. It was not her

function to correct any problem arising in connection with the tracheostomy or even to diagnose one and her failure to seek help, report a possible problem and take an appropriate note suggests to me that she may be mistaken in her recollection and that RN Yamada's evidence with regard to this matter should be preferred.

40. But later that evening a problem did arise. Mrs. Murphy was turned in bed by RN Castillo with the assistance of a surgical dresser and, after repositioning her, RN Castillo says that she noticed *"there was an airway leak via her oral cavity and her tracheostomy stoma."*
41. According to RN Castillo, Mrs. Murphy *"had desaturated to 68%"* which she observed posed a threat to Mrs. Murphy's life. Ms. Castillo says that she turned up the oxygen and checked to see the origin of the desaturation, disconnected the patient from the ventilator and, although she admitted to the inquest that hand bagging was inappropriate in this case, hand ventilated her with a laerdal bag via the tracheostomy. She found that she was unable to pass a suction catheter via the tracheostomy and, according to RN Castillo, Mrs. Murphy
42. *"became bradycardic and so I immediately alerted the medical staff who were present in the unit and they attended."* The fairest reading of the evidence and, particularly, Ms. Castillo's evidence on this point suggests that it was the *bradycardia* which prompted her call for medical help and it seems to me that it was quite inappropriate to await that condition.
43. It is likely that Mrs. Murphy's tracheostomy had become dislodged some significant time before RN Castillo noticed the air leak and started working on her. How long a period of time elapsed between that happening and RN Castillo noticing the problem is unknown but Dr. Santosh Parab was informed that the patient first shown signs of breathlessness about 5 to 7 minutes after having been turned. In his second statement, Dr. Parab said that, relying on the clinical records, he had been informed within a five to seven minute timeframe. How long a period of time had elapsed between Ms. Castillo noticing the air leak and calling for medical assistance is impossible to say with any certainty but I think it is clear that time was lost due to Ms. Castillo's failure to seek help immediately upon noticing the problem. How long RN

Castillo waited before seeking medical assistance in circumstances of airways compromise and increasing desaturation is uncertain.

44. The relevant Policy Direction, # 2006 098 indicates that, in cases of respiratory distress, defined to include oxygen desaturation, *RN Castillo's* proper course was to deflate the cuff and call for medical assistance from *ICU* staff. There would seem to have been little sense in delaying that call which could have been effected simply by pressing an alarm button near the head of Mrs. Murphy's bed or by calling out to a nearby nurse. As *RN Weir* commented, a call for assistance could have been made at the same time as *RN Castillo* was taking other steps to assist the patient. .

45. The *ICU* team responded very quickly though, perhaps, not so effectively to *RN Castillo's* call.

46. In this inquest, it has proved to be very difficult to pinpoint with any certainty the precise times at which things were done or not done within the *ICU* and the best estimate I can make is that, after an unknown period during which Mrs. Murphy's plight remained unrecognised, approximately 5 to 7 minutes passed between *RN Castillo* noticing the problem and seeking medical help. Then, the *ICU* team were at Mrs. Murphy's bedside within about a further minute but it was about another 7 minutes before restoration of the airways was achieved.

47. It was Dr. Santosh Parab who was the *ICU* Registrar leading the team who attended Mrs. Murphy's bedside in response to *RN Castillo's* call for help. He found the patient breathless and saturating to 80-82. He disconnected Mrs. Murphy from the ventilator and, like *RN Castillo* before him, he, too, had difficulty bagging her through the tracheostomy and passing a suction catheter and he reported that Mrs. Murphy "*started to drop her saturation with a drop in heart rate and no cardiac output.*" He commenced compressions and called for the arrest team. During this period, Mrs. Murphy's saturations dropped to 30-40%.

48. It is not clear to me why Dr. Parab pursued the course he did. When he arrived at Mrs. Murphy's bedside he was aware that the patient had been in respiratory distress for quite some time and that the situation was urgent. And he was aware, or should

have been aware, that there had already been attempts by a nurse of over thirty years experience to bag the patient through the tracheostomy and to pass a suction catheter. I wonder why it was necessary to repeat those failed procedures rather than take a different tack. The relevant *Policy Directive* suggests, in cases like this, a rapid tracheostomy exchange. Perhaps Dr Parab should have directly instrumented the tracheostomy site although, as Professor Morris cautions, sufficiently trained and expert staff may not have been available. Or perhaps muscle relaxant medication should have been administered in what, by that stage, was a desperate situation.

49. Finally, despite the difficulties occasioned by Mrs. Murphy's obesity and by "*difficulty visualising the vocal cords due to swelling even with maximum manipulation,*" Mrs. Murphy was successfully intubated after about 7 minutes. Dr. Nikki Yeo who was part of the *ICU* team agrees that it was about 7 minutes after entry of the team that intubation was achieved.

50. Mrs. Murphy's saturation and heart rate started to drop. Mrs. Murphy's saturations had dropped to 30-40% and her heart rate had dropped to as low as 20 *bpm* with the cessation of cardiac output. Sometime at about 8.32 pm she arrested and a *Code Blue* was called. Chest compressions were given by Dr. Yeo, taking turns with the *RMO* and a nurse, for about 7 to 9 minutes when circulations was restored.

51. Dr. Pinar Kozan's notes indicate that, even after intubation and chest compressions, a further 9 minutes elapsed before Mrs. Murphy's saturation levels returned to about 92-97%. By that stage, her oxygen saturations had been unsatisfactory for a period in excess of about 22 minutes plus the unknown period of time prior to *RN Castillo* first noticing her plight. Dr. Faruque Riffat's note, based on information he was given at *ICU*, suggests *down time* of between 20 and 30 minutes which is consistent with the information provided in Dr. Shakeel Kunju's *Report of Death to Coroner*, part of **EXHIBIT 1**.

52. At some time that evening (he thinks it was about 8pm), Dr. Jefferson was telephoned at home by an *ICU* Resident who indicated that they were having difficulty ventilating Mrs. Murphy. He came immediately to the hospital and, when he arrived at *ICU*, found the patient had arrested and was receiving medication and cardiac compression

by ICU staff. The tracheostomy had been removed and Mrs. Murphy had been reintubated orally. But she appeared to have been stabilised, her airway had been restored and “*she was ventilating without difficulty.*” There was really nothing more for him to do. So, after some discussion with Dr. Wong and the supervising consultant, Dr. Mooney, Dr. Jefferson noted the matter and took his leave.

Mrs. Murphy’s Death

53. But there had been a prolonged period of *down time* from the time when Mrs. Murphy’s airways first became compromised after being turned in bed until restoration of her airways, perhaps 20 to 30 minutes, during which there was little if any oxygenation and Mrs. Murphy sustained brain damage known as *hypoxic/ischaemic encephalopathy* as a consequence of reduced cerebral perfusion and oxygenation. In the following hours and days, tests demonstrated the severity of her neurological impairment and, as Dr. Orde reports, “*diffuse hypoxic/ischaemic damage was confirmed upon post-mortem examination of the brain and there were also signs of injury to the liver and lungs as a consequence of reduced blood flow and oxygenation.*” After consultation with the family, it was decided to withdraw treatment and death was verified on 28 April, 2008.

Conclusions

54. The inquest was particularly fortunate to hear from two expert witnesses, Professors Thomas B. Hugh, formerly of St. Vincent’s Hospital and David L. Morris of St. George Hospital. Each was asked to review the papers and the evidence and comment on important areas of concern and, as well as providing reports, each gave oral evidence by way of open discussion in what is colloquially known as a *hot tub*. In doing so, they were able to highlight their areas of continuing difference and, in some important respects, were able to resolve some of them. The inquest is very grateful for their contribution. There was, also, a very helpful statement by Dr. David Collins, Consultant Specialist in Anaesthesia and Intensive Care and, of course, his contribution is the more valuable because of his current position as Acting Director of the ICU at *Prince of Wales Hospital*.

55. Some concern had been expressed in some quarters that Professor Marsden operated on Mrs. Murphy on 2 April, 2008 without any prior consultation with

Professor Newstead or, indeed, with any other colorectal surgeon but neither Professor Hugh nor Professor Morris saw this as an occasion for criticism and I think Professor Hacker's evidence regarding the normal province of the trained and experienced Gynaecological Oncology surgeon supports that view.

56. Neither expert was prepared to offer criticism regarding Mrs. Murphy's first operation.
57. On the topic of *dehiscence*, Professor Hugh reiterated the view he had expressed in his report that this can generally be regarded as "*a failure of technique*" but, very significantly, he added that Mrs. Murphy had presented "*a very, very large problem.*" He was pressed by learned Senior Counsel assisting and was reminded of his editorial comment entitled "*Abdominal Wound Dehiscence*" published in *Aust. N.Z. Journal of Surgery*, 1990 where he had written that dehiscence should be a very rare event and is indicative of a failure of technique but he reminded Ms. Stern that he had been writing of almost all rather than of all cases and added that he would be "*quite forgiving*" in Mrs. Murphy's case because of the "*enormous physical challenge*" which that case had presented.
58. In this connection, Professor Morris agreed with Professor Hugh both as to failure of technique and as to the challenging nature of Mrs. Murphy's case. There seems little daylight between the views of the two experts in this regard.
59. Regarding the decision or decisions to defer surgery until 12 April, 2008 and the question whether there was an inappropriate delay, Professor Hugh's view is that, by the second or third day after the first operation, "*clinical signs of dehiscence were evident*" and Professor Morris agrees with the view that the team should have seen dehiscence as likely. I have already noted his strong views regarding the quality of the radiology report and Professor Marsden's failure to view the pictures which, he thinks, "*could at least partly have been responsible for the inappropriate delay in initiating the second operation.*"
60. The question whether, in such circumstances, Dr. Chetty's view as recorded in the notes that he "*would not want to return to OT, even if dehiscence*" was appropriate was not as contentious as, perhaps, the written opinions of the experts might at first have suggested. Dr. Hugh believes that where dehiscence is present, early surgery is

indicated ...*“if the patient’s condition permits”* while Professor Morris’ position is that, even in the presence of dehiscence but absent bowel obstruction, surgery is *“not mandatory.”* He reminded the inquest that there are *“risks both ways”* and said that he would sometimes act conservatively, at least until the case for surgery became clearer.

61. Dr. Hugh did not disagree with Professor Morris’ position and the differences between them in this area might be a matter of semantics because, as the former conceded, a patient’s cardiac condition and respiratory concerns might well argue for a deferral of surgery notwithstanding the presence of dehiscence.

62. But where there are clear signs of bowel obstruction complicated by dehiscence, Professor Hugh would proceed immediately to surgery unless the patient was so infirm as to be unable to withstand general anaesthesia while Professor Morris might still pause, at least for a short period – perhaps 48 hours, to see if the combined difficulties might resolve themselves. That said, Professor Morris told the inquest that he was able to appreciate Professor Hugh’s position and that he too would be *“most concerned”* once bowel obstruction raised its ugly head and would operate *“sooner if indicated.”* Here too it seems to me that the experts are really not in any disagreement other than some difference of emphasis.

63. But there is disagreement between them, I think, in the matter of the date by which it should have been clear to Professor Marsden that a return to theatre with Mrs. Murphy was indicated. As Professor Morris reminded the inquest, *“the delay until the 12th. was a very long time”* and his opinion is that, by the 5th. or 6th. April, a diagnosis of *Bowel Obstruction consequent on dehiscence* was available. Even applying a so-called 48 hours test, that would suggest surgery on 7th. or 8th. April. Professor Hugh is inclined to think that a positive diagnosis might have been available and a decision for surgery might have been made as early as 6th. April but he *“would be reluctant to place any pressure on those managing the very complex situation”* and would be prepared to allow a delay until about 8th. April as being not unreasonable.

64. Further, neither expert is clear that Mrs. Murphy was disadvantaged because surgery was delayed until 12th. April. According to Dr. Hugh, the *“potential for adverse*

consequences” was certainly present but, in the event, the surgery on 12 April appears to have been successful. Professor Morris thought that the difficulties in operating might have increased with time but he is unable to quantify the degree of additional difficulty. Both experts were taken to the pathology report following the operation on 12 April but even a study of that report failed to establish any adverse impact due to the procedure being deferred until 12 April upon what, after all, surgery with an essentially successful outcome.

65. Regarding the procedure on 12 April, both expert witnesses agree that the bowel perforations which occurred then are not a proper basis of criticism of Professor Marsden and Dr. Chetty although, they thought, these should have been located before closing the patient while *“running the bowel.”* Had they been located, they could and should have been repaired on 12 April so that surgery on 18 April might have been avoided. Both Professors Hugh and Morris see it as a failure of technique that the bowel perforations were not seen during the *running of the bowel* or else that the bowel was not *run*. Further, they were critical of Professor Marsden’s delay in seeking to involve the colorectal surgeons and both agrees that, in complex and difficult surgery such as the surgery of 12 April, their timely involvement would have been appropriate.

66. After surgery on 12 April, there was no return to theatre until 18 April when Professor Newstead and Dr. Owen operated but, here, there is little to suggest any inappropriate delay. Professor Hugh remarked that Professor Newstead had had only one opportunity – and that an extremely difficult one having in mind Mrs. Murphy’s *habitus*, to repair the bowel and that a failure in that regard would have involved a very, very high likelihood of death. He thought, then, that it was reasonable that the surgeons should allow Mrs. Murphy time to recover her strength before engaging in further surgery. He told the inquest that any delay between 12 and 18 April was *“well judged and appropriate.”* Dr. Owen was able to tell the inquest that, in the period after 12 April, Mrs. Murphy was *“doing well.”* Professor Morris was somewhat less patient regarding the surgery on 18 April than Dr. Hugh. Although in other areas of his evidence, he has spoken of the *conservative course*, he reminded the inquest that the examination of the patient on 15 April showed pain on palpation of the abdomen and a large volume of green fluid was noted. He thinks that these signs should have *“caused*

alarm” and he would have operated immediately. I think Professor Hugh’s opinion in this particular area is the more readily acceptable of the two and, at any event, I would be very hesitant in criticising surgeons whose methods and judgment, in a matter like this, had earned the approval of Professor Hugh. Further, it is relevant to note that the surgery of 18 April was a success.

67. In his statement, Dr. Collins has dealt with the unavailability to Dr. Wong of the *XLT* size 8 tube which she had intended to use in performing the tracheostomy. Its unavailability represented a systems failure but very elaborate reforms regarding the availability of equipment have been introduced at the hospital and are outlined in Dr. Collins’ statement. It is unnecessary for me to recite these and sufficient to say that these are so responsive to the needs highlighted in Mrs. Murphy’s case as to render similar recommendations which I had intended to make unnecessary.

68. Both Professors Hugh and Morris recognise that, once *RN* Castillo identified an air leak, it was clear that the tracheostomy had become dislodged and had ceased to be viable. But they disagree somewhat as to the wisdom of *RN* Castillo’s probable actions thereafter. Professor Hugh told the inquest that he would “*find it hard to be critical*” of a nurse who, faced with “*such a terrifying situation,*” failed to seek medical assistance even for as long as 7 minutes. Professor Morris on the other hand thinks that 7 minutes is too long before calling for medical assistance in “*such an extremely dangerous event*” and told the inquest that “*all available help should have been called for as soon as there was a loss.*” It is not part of the coronial function to blame people or be critical of them so I am able to respect Professor Hugh’s position even while accepting Dr. Morris’ view that Ms. Castillo should have sought help as soon as possible and sooner than she did. That such is the case is supported, it seems to me, by the terms of the relevant *Policy Direction #2006 098* to which I have already referred. As Professor Morris told the inquest, in such a vital matter, rapid action by the most experienced person available is required to re-establish an airway in the event of loss of an early post tracheostomy airway.

69. As to Dr. Parab’s actions once he was brought to Mrs. Murphy’s bedside, Professor Morris wonders whether it was wise to repeat the failed steps of *RN* Castillo and he points out that these repeated steps contributed to a delay of about 14 minutes from

RN Castillo first noticing Mrs. Murphy's distress until restoration of the airway. He thought that suctioning should not have been reattempted by Dr. Parab although his attempts at oral intubation, unsuccessful as it turned out, until the intervention of the Anaesthetic Registrar were, perhaps, "*a matter of judgment.*" But, fourteen minutes, as Professor Morris told the inquest, was "*too long*" and he told the inquest that he would have made "*a different call.*"

As to the policy in place at the date of Mrs. Murphy's death

70. Regarding turning patients with tracheostomy tubes, both Professors Hugh and Morris told the inquest that a requirement that a nurse be assisted by at least one other person was inadequate, particularly where the patient's tubes had been inserted only within the previous 72 hours. This is a vital time for a patient with a tracheostomy. Further, having heard *RN* Castillo explaining her own method and her belief that the most important thing is to check the length of the tube, I doubt whether her understanding of the policy and of the particular care required was all that it should have been.

71. But Dr. Collins was able to inform the inquest of the very extensive steps the hospital has taken to correct these matters. I do not propose to recite what Dr. Collins had to say in that regard but it is notable that there is now an effective education programme in place to enhance protection and management of tracheostomies and the policy now mandates three rather than only two staff members to undertake patient turning, with one, a qualified *RN*, devoted to supervising and managing and ensuring the integrity of the tracheostomy.

72. With respect, these are very worthwhile reforms which the hospital has put in place and the inquest was informed by Mr. Weinstein of Senior Counsel that, to a significant degree, they have been put in place as a consequence of Mrs. Murphy's death.

Findings

I find that Beverly Ann Murphy who was born on 14 January, 1938 died at *Prince of Wales Hospital*, Randwick on 28 April, 2008 of *Hypoxic/Ischaemic Encephalopathy consequent upon Cardiorespiratory Arrest and Compromised Airflow through Tracheostomy, probably upon being turned in bed, against a background of Dilated Cardiomegaly, Multiple Organ Failure as a consequence of Wound Dehiscence following Hysterectomy for Endometrial Carcinoma and Iatrogenic Small Bowel Perforation during the attempted repair thereof, Obesity and Pre-existing intra-abdominal Adhesions following previous Abdominal Surgery.*

Recommendations

I recommend that the Royal College of Surgeons and the Royal Australian and New Zealand College of Obstetricians and Gynaecologists consider introducing a mandatory training requirement for postgraduate certification in Gynaecological Oncology that there be participation in the work of a general surgical unit, particularly in the areas of gastrointestinal and urological surgery, for a period of not less than twelve months.

Magistrate Scott Mitchell,

Deputy State Coroner.

Glebe.

14 June, 2012