INQUEST INTO THE DEATH OF VANESSA ANDERSON.

WESTMEAD FILE. NO. 161/2007.

Appearances.

Gail Furness, Counsel, instructed by Emma Sullivan, Solicitor of the State Crown Solicitors Office, Counsel assisting the Coroner.
Michael Williams, SC, instructed by McLaughlin & Riordan for Mr & Mrs Anderson and the family of Vanessa Anderson.
Anna Katzmann of Counsel, instructed by Leitch Hassan Dent, Solicitors for the Royal North Shore Hospital and Doctors Nicole Williams, Azizi Bakar, Galina Palachevskaia.
Stephen Barnes of Counsel instructed by Tress Cox, Solicitors for Dr Sanaa Ismail.
Michael Bozic, SC, instructed by Tony Mineo (United Medical Protection) for Drs Little and Sharpe.
Neale Dawson, Counsel, instructed by Peta Kava (NSW Nurses Association) for Registered Nurses, Perrin, Virgona and Becker.
Robert Greenhill, Senior Counsel, instructed by Blake Dawson, Solicitors, for Dr Stephen Barratt.

****

Events leading to Vanessa's death.

Vanessa Anderson was born on the 11th September 1989 and was 16 years of age at the time of her death. Vanessa resided with her parents, Warren & Michelle Anderson and her brother Nathan at 19 Mountview Parade, Hornsby Heights. Vanessa was a student at St Leo's College at Wahroonga. Vanessa enjoyed good health the only known medical condition being a history of asthma and allergies to nuts and shellfish. Vanessa was prescribed Ceratide and Ventolin for her asthma; she did not drink alcohol or smoke cigarettes. On Sunday 6th November 2005, Vanessa was competing in a golf tournament at the Asquith Golf Club at Mount Colah and was playing in a team event. On the 5th hole, after hitting her shot she walked in the direction of where she believed her ball was and while searching for her ball was struck by a golf ball on the right side of her head and behind her ear. This incident took place at 8.25am.

It is now known that Vanessa suffered a depressed fracture of her skull behind her right ear. Vanessa was conscious, but disoriented when she was first attended to by Ambulance officers on the golf course. Vanessa was conveyed to Hornsby Hospital where a scan was conducted. Vanessa had vomited several times on route and at the hospital. Vanessa was subsequently transferred to Royal North Shore Hospital where she was admitted and remained at that Hospital until her death some time in the early hours of Tuesday 8th November 2005. This Inquest will focus primarily on the diagnosis and treatment of Vanessa during her period of hospitalisation at the Royal North Shore Hospital.

The Role of the Coroner.

It is important for the general public and particularly for the Anderson family to understand the role and function of a Coroner. The Coroner's powers and responsibilities are those vested to him/her by Parliament by virtue of the provisions of the Coroners Act, 1980, as amended. A death is reportable to a Coroner when the death falls within the provisions of Section 13 of the Coroners Act. In Vanessa's case, her death was a reportable death because she died suddenly, un-expectantly and in circumstances where a Doctor would be precluded from issuing a certificate as to the cause of death.

Vanessa's death was reported to the office of the State Coroner, Glebe on the 9/11/2005, Constable Katrina Burrell being the reporting officer. I propose to outline a short chronology of the management and investigation of Vanessa's death as it appears from the Glebe Coronial file and from my more recent involvement in the matter. I do this specifically as a number of criticisms have been made in regard to this investigation generally and more particularly assertions by certain parts of the media that I, as the presiding Coroner, have contributed to delays and have been responsible for the Inquest being drawn out. As indicated above, Vanessa's death was reported to the Senior Deputy State Coroner Glebe, Magistrate Milledge on the 9/11/2005. Her Honour directed that a post mortem examination be conducted and ordered a Police investigation and the preparation of a brief of evidence.

On the 17/11/2005 a letter was received from Mr T.J.Anderson together with a statement prepared by Vanessa's father, Mr Warren Anderson. A further letter was received from Mr T.J.Anderson dated 23/11/2005; both letters were addressed to the then State Coroner, John Abernethy and raised a number of concerns associated with Vanessa's death. The State Coroners office replied on behalf of Magistrate Milledge, acknowledging the concerns raised and indicating that those concerns would be brought to the attention of the investigating Police. On the 17/2/2006 the Health Care Complaints Commission wrote to the State Coroners Office indicating that they were investigating Vanessa's death and sought access to Post Mortem and medical records. A file note dated 11/4/2006 indicates that the former State Coroner, John Abernethy took over carriage of the matter and gave clear directions as to the further investigation of Vanessa's death including the referral of the matter to the Coronial Investigation Unit. On the same date (11/4/2006) the State Coroner wrote to the Solicitors for the Anderson family (McLaughlin & Riordan) advising them.

It is apparent that over the ensuing months the brief of evidence was being put together as well as obtaining a number of expert reports. The former State Coroner, John Abernethy retired on the 28th September 2006, and the carriage of Vanessa's case reverted back to the Senior Deputy State Coroner, Magistrate Milledge. On the 20th October 2006, the SDS Coroner requested that the State Crown Solicitors Office be instructed due to the medical complexity of the case.

The file indicates that on the 7/11/2006 Vanessa's case was allocated to Magistrate Jane Culver and that a number of meetings took place between Her Honour and the State Crown Solicitors office as well as meetings with the Anderson's Solicitors. I also understand that dates for the Inquest had been reserved for a period of 3 weeks in April 2007 and a directions hearing listed for the 9/3/2007. On the 18/1/2007, Magistrate Culver was informed that she would be transferred to Manly effective

from 9/2/2007. It was about this time that I was contacted by the Acting State Coroner and requested to take over the carriage of the matter. On the 14/2/2007 Vanessa's file was transferred to me in my capacity as the Deputy State Coroner, and I took over carriage of the matter from that date. I presided over the directions hearing at Glebe on the 9th March 2007, and confirmed the hearing dates for April, with the exception of those days in which I had prior commitments. The hearing of the Inquest into Vanessa's death commenced on the 10th April at Glebe (6 days) and Westmead (2 days) and was then adjourned to the 4th July 2007 in order to take evidence from Dr Ismail who was not available in April as she was expecting a child. Further evidence was taken and submissions made on the 4th & 5th July 2007, and the Inquest adjourned to Glebe on the 30th July 2007 for decision. In the intervening period, further information came to light from Dr Stephen Barratt and following a further mention on the 30th July 2007; a decision was made to recall Dr Ishmail and to hear evidence from Dr Barratt.

Having now heard the further evidence and submissions the role of the Coroner pursuant to Section 22 of the Coroners Act, 1980, is to return a finding as to the identity of the deceased, the date of death, place of death and manner and cause of death. The main focus of this Inquest has been as to the issue of manner and cause of death and whether Vanessa's care and treatment was significant as to the issue of manner and cause. It is not the role of the Coroner to apportion blame in terms of specific findings and accordingly legal concepts such as duty of care, negligence etc are not likely to be found in the Coroners commentary or formal findings.

I feel it is also important, particularly in view of certain media reporting this week, to emphasis that the jurisdiction of a Coroner is limited by Statute, that being the provisions of the Coroners Act, 1980. Regrettably, perceptions and comments that the Coroner has some wider role to play when investigating a hospital death are not only misleading, but also potentially create an unrealistic expectation in the community as to the powers and duties of the a Coroner. I reiterate, what I said in this Court on Monday (21/1/08), the Coroners role is to investigate the manner and cause of death (in this case Vanessa's) and all relevant matters associated with her death. It is not the role of the Coroner, nor does a Coroner have jurisdiction, to embark on some form of wide opened ended inquiry into a specific hospital or the Department of Health.

Relevant Facts established by the Evidence.

On the morning of Sunday 6th November 2005, Vanessa Anderson was hit on the right side of head by a golf ball.

Vanessa was then taken by ambulance to Hornsby Hospital, where a CT scan was taken diagnosing her with a depressed focal skull fracture. Vanessa was reviewed by Dr Stephanie Moffatt, who telephoned Dr Azizi Bakar, Neurosurgical Registrar at Royal North Shore Hospital ('RNSH") regarding Vanessa's transfer. Dr Moffatt was told by Dr Bakar to "hold Dilantin" until he could assess Vanessa at RNSH.

Vanessa was transferred to RNSH at around 1pm that day. Dr Bakar who was employed as a neurosurgical fellow at RNSH, but in practice was doing a Registrar's duty diagnosed Vanessa as having a closed depressed right temporal skull fracture

with temporal brain contusions. Dr Bakar classified Vanessa's head injury as mild on the basis of her Glasgow Coma Score ('GCS"). Dr Bakar considered, but decided not prescribe for Vanessa anti-convulsant medication.

Although Dr Bakar initially telephoned Dr Nicholas Little, the on-call consultant neurosurgeon to advise that Vanessa had been admitted to emergency at RNSH, he also told Dr Little that she would be transferred to Westmead Children's Hospital. He did not subsequently advise Dr Little that Vanessa had in fact been admitted to RNSH.

On Monday 7th November 2005 at about 8.30am, Dr Williams, senior medical resident, Dr Solmaz Bezyan (an intern on her first day in the neurosurgical unit) and Nurse Practitioner Becker conducted a morning ward round. Dr Williams was in charge of Ward 7B on this day, as the two neurosurgical registrars, Dr Assad and Dr Ball, were in Melbourne attending a six-monthly compulsory neurosurgery registrar training seminar. Dr Baker, the only registrar available in neurosurgery, was operating from 8am that day. He left the theatre after 5pm. This was the first time Dr Williams had been in charge of a ward.

During the round Dr Williams determined that Vanessa's GCS was 15. Dr Williams changed Vanessa's drug regime from Tramadol to Codeine Phosphate. Dr Bezyan was responsible for making notes in Vanessa's medical records. The notes she made were inadequate. They did not include the author of the notes, the results of the physical examination and ward round attendees.

At approximately midday, Dr Little attended the ward and was told that Vanessa had been admitted under his care; he was unhappy about the poor communication, which meant he had only just become aware of Vanessa's admission. Dr Little spoke with Dr Williams and Nurse Becker to discuss a second CT scan that had been taken earlier that day at RNSH. He formed the view that Vanessa most likely had dural lacerations with bone fragments within the brain itself. He diagnosed Vanessa as having a mild head injury.

The neurosurgical experts, Assoc Professor Weidmann and Dr McGee Collett agreed with this diagnosis. Assoc Professor Besser considered that due to evidence of dural laceration and underlying brain contusion, Vanessa had a moderate head injury, but considered that Dr Little's plan of management was correct in any event.

The issue of anti-convulsant medication was raised by Nurse Becker and for teaching purposes; the team discussed the advantages and disadvantages of anti-convulsant medication. At the conclusion of the discussion, Dr Little directed that Vanessa be given Dilantin and Dr Williams understood she was to chart Dilantin for Vanessa.

Dr Little, Dr Williams and Nurse Becker then attended on Vanessa in the presence of her mother. Dr Little reviewed Vanessa, and, among other matters, stated that he was constrained regarding the amount of analgesia that could be given to Vanessa.

There are no medical notes regarding this second ward round. In evidence, Dr Williams conceded that it was her responsibility to write in the medical records.

Dr Williams returned to Vanessa's room shortly after the rounds were completed. Dr Williams gave evidence that Mrs Anderson advised her of Vanessa's brother's very severe reaction to Dilantin, giving her the impression it was life threatening. In contrast, Mrs Anderson gave evidence that she told Dr Williams only that she was concerned her son had an allergic reaction to Dilantin, but put it no higher than that.

Dr Williams did not ask Mrs Anderson any questions as to the nature of the "allergic reaction" her son had suffered.

On the basis of the discussion with Mrs Anderson, Dr Williams decided not to prescribe the Dilantin; she did not prescribe any alternative (such as Epilum). Dr Williams was proposing to raise the issue with Dr Bakar when he returned from surgery.

Early in the afternoon of 7th November 2005, in response to Vanessa's ongoing or increasing pain, Dr Williams prescribed Panadeine Forte (2 tablets four times a day), and Endone (5 mg six times a day, PRN). She did not discuss this regime with anyone, and understood it was her responsibility to prescribe drugs without reference to a more senior doctor (as she had commonly done in other rotations), she was unaware of the concern regarding the use of opiate medication in head injured patients.

Between 4.30pm and 5.30pm, Dr Sanaa Ismail, anaesthetic registrar, reviewed Vanessa for a pre-operative anaesthetic consultation. In response to Vanessa's severe pain, Dr Ismail increased the dose and frequency of the Endone order to 5-10 mg, three hourly which was within the recommended dose contained in the RNSH guidelines.

Dr Ismail either forgot or overlooked the need to record a maximum dose, however, had she done so, it would have been 50 mg. Dr Ismail was not aware that Vanessa was charted to receive regular Panadeine Forte, she read the medication chart as Panadeine. Panadeine contains 8 mg of codeine and Panadeine Forte 30 mg. On the first occasion that Dr Ismail gave evidence she stated that had she known that Vanessa was receiving Panadeine Forte, it would not have made a difference to her decision to increase the Endone.

Dr Ismail was not aware of Dr Little's standing order that analgesia was to be determined by the consultant or registrar. Dr Ismail advised Dr Sharpe, the consultant anaesthetist, of her decision to increase the does of the endone order. Dr Sharpe told her to have the patient reviewed and expected that any change would be affected by or at the authorisation of the neurosurgical team.

Dr Ismail did not discuss or seek the input of the neurosurgical team regarding her decision; she told Dr Williams that she had changed the Endone order. Dr Little gave evidence that he would not have expected, and that it is uncommon as a matter of practice and observation, for an anaesthetic registrar reviewing a patient for pre-operative consultation, to prescribe analgesia for one of his patients. Dr Little stated that Dr Ismail should have consulted either Dr Bakar or himself before changing the Endone order. The three expert anaesthetists gave evidence that in similar

circumstances each would have consulted the neurosurgeon or a senior member of the team before changing the analgesia.

Associate Professor Besser gave evidence as to the general danger of narcotics in head injured patients, noting that it can affect levels of consciousness and also lead to respiratory centre depression. He stated that narcotic analgesia would be acceptable in circumstances where a patient has a lot of pain, but subject to frequent observation such as would occur in an Intensive Care Unit or High Dependency Unit setting. In the circumstances, he considered Vanessa had received too much analgesia, stating it was *"outside what I would have prescribed and I think outside probably (what) any neurosurgeon would have prescribed"*

Doctor McGee-Collett strongly considered Vanessa had received excessive amounts of analgesia, and believed that it was unlikely the opiate medication would provide pain relief in any event. Doctor Weidmann stated that the dosage was "high" and that as a generalisation; neurosurgeons would try and avoid doses at that level, but considered Vanessa to be an exceptional case, given her uncontrolled pain and distress. However, he gave evidence that he could not recall prescribing 5-10 mg of Endone 3 hourly for any of his patients.

Doctor Williams subsequently charted morphine as a PRN medication. Dr Williams did not intend for both Morphine and Endone to be administered to Vanessa, but that they be given in the alternative. Dr Williams accepted that the way she had charted the medication was not clear, and that she should have written the words "OR". There is no dispute that no morphine was actually administered to Vanessa following the Endone increase.

Nurse Becker gave evidence that she believed the issue of anti-convulsants had been dealt with and that she would have contacted Dr Little if she thought otherwise.

The neurosurgical experts agree that there were communications failures between Dr Baker and Dr Williams in that the issue of Dilantin was not resolved and because Dr Little, the consultant, was not contacted by either Dr Baker or Dr Williams in circumstances where he had directed Vanessa be given Dilantin, and that direction was not being followed.

That evening Vanessa was given two Panadeine Forte tablets at 7pm and 12am. She was also given 10 mg of Endone at 8pm and 11pm, the latter dose being administered by Nurse Perrin who commenced as the nurse in charge of the evening shift from 9.30pm.

At 1am on the morning of Tuesday, 8th November 2005, Vanessa buzzed for assistance. Nurse Perrin attended on Vanessa who said that she could not move, and sounded distressed. She lifted Vanessa's arm and it fell down limply on the bed. Nurse Perrin undertook some observations (noting no shaking or stiffness and that Vanessa's breathing was normal and she was warm to touch and of normal colour). She did not check Vanessa's movement in her lower limbs. Nurse Perrin agreed that if she had conducted a GCS examination at this time, Vanessa would have scored below 5, signalling that emergency medical intervention was necessary. At that time,

although Nurse Perrin had not formed a view about the incident, she did not believe Vanessa was in immediate danger, and thought she may have had a bad dream.

Nurse Perrin then left Vanessa to attend to the transfer of a patient who was being wheeled from a Specialist Dependency Unit bed to a ward bed. With the benefit of hindsight, Nurse Perrin gave evidence that she would now make a different decision and not leave Vanessa.

Approximately four minutes later, Nurse Perrin returned to Vanessa and performed a set of neurological observations, including calling Vanessa's name, asking if she was okay (to which she responded "yes"), requesting her to lift her arms and push her feet against Nurse Perrin's hands. Nurse Perrin observed Vanessa could do all these things, and formed the view that the earlier event was not clinically significant, and confirmed her initial idea that Vanessa was having a bad dream. For this reason, Nurse Perrin did not record the events in Vanessa's medical notes.

Nurse Perrin gave evidence that she had telephoned Dr Bakar, the on-call neurosurgical registrar, regarding two patients on two occasions during the night shift. The first occasion being at around the time of the shift commencement and the second occasion at approximately 1am. The medical officer rostered in the Hospital also attended the ward on two occasions during Nurse Perrin's shift – first to obtain bloods from a patient, and secondly, between 1am and 2am that morning, to review that patient.

Associate Professor Besser was not sure what the 1am event represented, noting the possibilities to be numerous. He suggested it could have been a temporal lobe or complex partial seizure. Dr McGee-Collett was not sure the event had any significance and thought it was a "long bow" to state it represented seizure activity. Associate Professor Weidmann agreed with Dr McGee-Collett, and stated that it could have been a bad dream. Dr Little also thought it was unlikely to be a seizure, and that Vanessa may have been having a bad dream, sleep talking or hallucinating (in response to the drugs she had been given).

At 2am Vanessa mobilised to the toilet and was given a further 10mg of Endone by Nurse Perrin. Nurse Perrin gave evidence that the only matter she took into account in administering the doses of Endone at 11pm and 2am was that Vanessa was complaining of pain, although she conceded that the dosage of 5-10mg Endone third hourly struck her as unusual and it was rare for this order to be charted in conjunction with regular Panadeine Forte.

Vanessa's observations were due again at 4am; however, Nurse Perrin decided not to do these observations because Vanessa had been neurologically unchanged when she conducted the observations at around 2am. Vanessa's father, Mr Anderson arrived on the ward at around 3.45am and sat in Vanessa's darkened room and fell asleep. At around 5.30am, Nurse Perrin entered Vanessa's room and found her unresponsive. An emergency was called and CPR administered. The treatment was unsuccessful and Vanessa was certified as being Life Extinct at 6.35am.

Following Vanessa's death the Royal North Shore Hospital conducted a Root Cause Analysis (RCA) and identified a number of factors as contributing to Vanessa's death. They are as follows;

(a) the absence of hospital wide pain management guidelines, increasing the likelihood of prescribing multiple opioid medication which may have contributed to respiratory depression in an opioid naïve patient such as Vanessa,
(b) the absence of guidelines and inter team lines of responsibility for treating pain and prescribing analgesia leading to multiple team involvement in pain management beyond the primary care team; the combination of analgesia prescribed may have had a cumulative affect leading to respiratory depression,
(c) levels of knowledge and understanding of clinicians of various disciplines regarding the management and control of pain may have led to unrealistic expectations concerning pain relief goals for Vanessa, leading to escalating prescribing and administration of analgesia, which may have contributed to respiratory depression,
(d) the illegibility of a written order for analgesia may have led to an increase in dose and frequency of other analgesia being prescribed, which may have contributed to respiratory depression.

Additional system issues identified by the RNSH in the RCA document included;

(a) the admission process,
(b) supervision of junior and registrar staff,
(c) communication issues (i.e. awareness of admission and escalation of care),
(d) patient location on the adult neurosurgical ward and location within the ward away from the nurses station,
(e) neurological observations not rigorously attended.

The statement of Mary Bonner, General Manager of North Shore & Ryde Area Health Service, dated 20th April 2007 outlines the changes in practice that have occurred as a consequence of the recommendations arising from the Root Cause Analysis, Quality Assurance Review and a high level clinical and managerial review. In summary, the principal changes or reforms implemented by RNSH are as follows;

(a) a determination that in general, adolescent patients are to be nursed as close as possible to the nurses station,
(b) the preparation of a policy for nursing staff regarding the importance of performing routine observations,
(c) the preparation of "Guidelines for Notifying a Consultant" directed to Junior Medical Officers (JMO) and the addition of new tutorial to the JMO orientation package concerning communications with consultants,
(d) the development of an acute pain management policy and procedure for use in the Neurosurgery Department, establishing that decisions regarding the prescription of analgesia outside the terms of the guidelines can only be made by a neurosurgical registrar or consultant,

(e) further in house education for medical and nursing staff regarding pain management treatment which specifically deals with opioid prescribing and pain assessment,
(f) development of a brochure entitled "Analgesia in Neurosurgical Setting – Headache" be available on wards 6C and 7B for distribution to patients and their families,
(g) further and continuing education regarding the requirements of properly documenting all relevant matters in a patient's medical records (including the fluid balance chart) and documenting all orders concerning the patient's care and any variation thereof,
(h) the implementation of a system dealing with periods where there is reduced registrar coverage due to training/educational requirements, pursuant to which the Head of Department is responsible for ensuring that adequate cover is documented.

On the 6th July 2007 the taking of oral evidence in the Inquest into the death of Vanessa Anderson had been completed and on the same date the various legal representatives, who had been granted leave to appear, made their submissions to the Coroner. The matter was adjourned to the 30th July 2007 for decision; however, in the intervening period the Coroner received a letter from Dr Stephen Barratt. Dr Barratt at the time of Vanessa's admission to RNSH was a Senior Staff Specialist anaesthetist at that hospital and was the Supervisor of Training in the Specialist Training Scheme for anaesthetic registrars and provisional fellows at RNSH, including Dr Sanaa Ismail. In his capacity as Supervisor of Training, Dr Barratt met Doctor Ismail to de brief her following the death of Vanessa. On or about the 14th November, Dr Barratt spoke to Dr Ismail in the presence of Dr Sonya Bajenov and a conversation took place during which Dr Barratt made observations and formed the view that Dr Ismail may not have been aware that Vanessa had been chartered for Panadeine.

One will recall that when Dr Ismail gave her oral evidence at this Court on the 4th July 2007 she maintained the view that she was well aware that Vanessa had been prescribed Panaedine and did not consider that unusual in conjunction with Endone. She also conceded on that occasion that she might not have been aware that the chartered Panediene was actually Panediene Forte. The significance of the Barratt letter which was dated 9th July 2007 is that it by implication it suggested that Dr Ismail may not have been truthful in her evidence about knowledge of the Panediene. The Barratt letter also raised concerns regarding the evidence given by Dr Williams. In consultation with Counsel Assisting the Coroner a decision was made that the letter written by Dr Barratt and addressed to the Coroner personally should be disclosed to all interested parties. Following that disclosure and the mention of this matter on the 30th July 2007 a decision was made that Dr Barratt would be approached to make a statement to the Court and consideration would then be given to calling him as a witness. Following the directions given on the 30th July as to the anticipated progress of the Inquest it came to light that Dr Barratt had written many letters to Dr Ismail, Dr Williams and Ors as well as communicating with them before and after the Inquest commenced on a whole range of matters. Of particular concern was the fact that Dr Barratt had written letters to the Doctors who had given expert evidence before this Inquest and there was concern as to whether the evidence of witnesses may have been coloured or influenced by the views expressed by Dr Barratt.

As a result of the Barratt letters a decision was made that the expert witnesses (Drs McCullough & Wilkinson) would be requested to provide a fresh statement as well as Drs Nicole Williams, Dr Sanaa Ismail and Dr Bajenov. It was anticipated that those Doctors would be called to give evidence at the resumption of the Inquest. I do not propose to go into any great detail on this issue, other than to say that Drs McCullough & Wilkinson in their new statements have indicated that their evidence was in no way influenced by anything Dr Barratt had communicated to them. Accordingly a decision was made not to recall them. In regard to Drs Williams and Ismail a decision was made that they would be recalled to give evidence and that Dr Barratt would also be called.

On the issues raised by virtue of the Barratt letters it is the view of this Court that in regard to the evidence given by Dr Nicole Williams the Court is entitled to accept her evidence under oath, that she was not in any way influenced by those communications. In so far as the evidence of Dr Ismail is concerned there would appear to exist a perception in the mind of Dr Barratt, one that he adheres to, that by virtue of his observations (albeit that he raises the issue some 20 months after the event) he believes that Dr Ismail was not aware that Vanessa had been chartered Panedeine. Dr Ismail has maintained under oath that she was aware of the Panedeine being chartered and concedes that she was unaware that the Panadeine was actually Panedine Forte. Sight should not be lost of the fact that Dr Ismail has never conceded or admitted that she failed to notice chartered Panadeine and the perceptions or opinions of Dr Barratt can not be put any higher than a view he formed from what he describes as a "pause" or a look of shock when this issue was discussed at the de-briefing. It could simply be the case that Dr Barratt has attached a degree of significance to a Doctors demeanour when realising the significance of the difference between Panadeine and Panadeine Forte in the context of the codeine levels of 8mg and 30 mg respectively.

The Barratt letters in my view where an unnecessary and unfortunate side issue, however, one that needed to be addressed. This Court and the parties who have been granted leave to appear have had the benefit of examining the Barratt letters as well as the document tendered by Dr Samuels (Exhibit 18). This Court has formed the view that there is no public interest in the content of the Barratt letters and much of the information contained is not relevant to this Inquest. In so far as what was relevant, that has been addressed by further oral evidence. It is for those reasons that this Court has made an order under Section 44 of the Coroners Act for non-publication orders in regard to the letters and text messages that have been produced to the Court. The non-publication order does not apply to the oral evidence or cross-examination of witnesses, only the documents themselves.

Cause of Death.

Undoubtedly the question as to the direct cause of Vanessa's death is the most difficult, particularly having regard to the evidence and opinions expressed by the various experts and Dr McCreath, the Forensic Pathologist who performed the post mortem examination.

By way of summary, Dr McCreath who conducted the post mortem examination on the 9th November 2005 expressed the view that the cause of death was due to a blunt

force head injury and that the mechanism of death was most likely a seizure. Dr McCreath consulted with Dr Rodrequez, a neuropathologist in preparing her report and explained that seizure was often a diagnosis of exclusion and that specific post mortem artefacts are unlikely to be found. Both Dr McCreath and Dr Rodriquez excluded other possible causes of death associated with the head injury, such as infection or extensive swelling of the brain. The presence of laceration to the brain indicated that seizure was a possibility, however, as Vanessa was relatively neurologically stable and then had a sudden deterioration, it was thought that some form of fit might have been the most likely mechanism of death.

As to the possible contribution that administered analgesia may have had, given their known respiratory depressant effect, Dr McCreath stated that it was difficult to determine what effect the analgesia played. Dr McCreath explained that post mortem blood is difficult to interpret due to the instability of drugs following death. Dr McCreath did not form a view as to whether the drugs had had a cumulative or additive effect, but included the possible contribution of the drugs in the autopsy report because, based on the nature of the drugs and the circumstances surrounding Vanessa's death, they may have caused respiratory depression.

The neurosurgical experts also proffered views as to the most likely cause of death. Associate Professor Besser and Dr Weidmann gave evidence that they did not know the cause of death. Associate Professor Besser said that there was a range of possible scenarios, however, it was most likely that Vanessa had a seizure and that there was a probability that Vanessa's respiratory status was compromised and that these two matters led to her death. Prof Besser also drew attention to the fact that the post mortem report suggested brain swelling and transtentorial herniation, which may have worsened since the CT scans, were taken. He also proffered the view that a pressure wave may be implicated in Vanessa's death as well as the possibility of pulmonary oedema on account of the frothy material found in Vanessa's lungs at autopsy.

Dr Martin McGee-Collett considered the biggest contributor to Vanessa's death was too much opiate medication. He was of the view that Vanessa's CT scans, the GCS scores and the autopsy observations in regard to her brain injury, were not sufficient to cause death and that it was unlikely that she died from a seizure.

Associate Professor Weidmann gave evidence that he was unable to say what caused Vanessa's death, but if forced to express a view, he considered it more likely that Vanessa had a seizure, compounded by the analgesia. In expressing this view, Dr Weidmann stated, however, that there was no evidence of a seizure and that the autopsy report indicated minor brain swelling which was not really significant.

Dr Wilkinson stated in his report that the death appeared to be the result of a major seizure and in his evidence referred to a laryngospasm having been caused by a seizure or dystonic reaction.

Dr McCulloclh, while not certain as to the mechanism of death, stated in his report that the most likely hypothesis was a seizure, possibly exacerbated by mild respiratory depression from opioids. In evidence, he indicated he would defer to neurosurgical expertise concerning the possibility of a seizure and Drs Wilkinson and Turner also

agreed. Dr McCulloch also expressed the view that it was almost impossible that Vanessa had died from the effects of the opioids.

Dr Turner expressed the opinion that the most likely of the various possibilities was a combination of the head injury and the narcotic analgesia, which caused respiratory depression, apnoea or obstruction.

With the exception of Dr McGee-Collett, each of the experts was unable to firmly state an opinion as to cause of death. Of those with expertise in seizures, two of the three neurosurgeons tended towards some form of seizure, as did the forensic pathologist. Most of the seven experts, however, more or less strongly believed that the opioids which had been administered were, in combination or alone, a possible factor in Vanessa's death.

In final submissions to the Coroner, Counsel Assisting submitted that this Court could return a finding that Vanessa died from the respiratory depressant effects of opiate medications; or from the effects of some form of seizure; or after suffering a seizure of some form, combined with the respiratory depressant effects of the opiate medication which had been administered. Ms Katzmann who represents the interests of RNSH and Dr Williams submitted that on the balance of probabilities the Court could not be satisfied as the direct cause of death and that an open finding was appropriate. Mr Williams who represents the interest of the Anderson family has submitted that this Court should return a finding that the cause of death was due to respiratory arrest caused or contributed to by respiratory depression and seizure following administration of analgesics in the absence of anti convulsant medication and or intensive monitoring. As can be seen, there is as much a difference of opinion as to the cause of death in the submissions as there is in the expert evidence.

The test for a Coroner in determining a cause of death is on the evidence presented applying the civil standard of proof, that being, on the balance of probabilities. Simply said, balance of probabilities, means no more than, what is more probable. Waller in his 2nd Edition of Coronial Law & Practice has said, "*The Coroner should make every endeavour to obtain evidence which will allow the Coroner to come to a positive verdict. An open finding is satisfactory to no one. Relatives look to the learning and experience of a Coroner to solve what is a puzzle to them, and the Coroner should not shrink from bringing in a definite verdict out of mere timidity or excessive concern for their feelings, but where the evidence is of uncertain character, or unreliable or insufficient, an open verdict must be found"*

Dealing firstly with the post mortem findings and opinions of Dr McCreath, I am of the view that the opinion expressed in the final post mortem report (Exhibit 1) that the direct cause of death was Blunt Force Head Injury is too simplistic. I do note that Dr McCreath in her report summary further states that codeine, oxycodone and tramadol all have respiratory depressant effects and may possibly have contributed and that the most likely mechanism of death was a seizure. There is no doubt that Vanessa's head injury played a part in her death, however, I see that injury as being the catalyst for her admission to hospital and there appears to be little doubt from the neurosurgical experts that Vanessa's head injury was a mild head injury and was not life threatening in terms of any injury to the brain or excessive brain swelling that might have led to death. The opinions, which have been put quite strongly in regard to seizure are

certainly compelling, however, there is no evidence that Vanessa actually suffered a seizure. The observations made by Nurse Perrin at about 1am when Vanessa appeared unresponsive could not with any degree of certainty be said to have been a neurological event. It is quite plausible, as suggested, that the event was no more than a bad dream or some form of hallucination due to prescribed analgesia. It should also be firmly stated that while opinions regarding seizure in a head injury patient are realistic, there was no post mortem artefact, nor likely to be, that supported seizure as being the mechanism of death.

That leaves the Court with examining the impact of the medications administered to Vanessa and whether they may have resulted in or contributed to her death. There is no doubt that the toxicology evidence does not support death due to above therapeutic levels or fatal levels of any the drugs found. Codeine was found at the level of 0.20 mg/L which was approximately 20% of the lowest reported fatal range. The reading was just under the lower levels of the therapeutic range (0.025-0.05) Oxycodone was found at the level of 0.1 mg/L which was at the upper end of the therapeutic blood level and well below the toxic blood range (0.2-5mg/L). Paracetamol was found at 7 mg/L which is towards the lower end of the therapeutic blood range (2.5-25mg/L). There is no doubt that these drugs individually and in combination will have a depressant respiratory effect and sight should not be lost of the fact that toxicology levels in post mortem blood can be difficult to interpret. Sight should also not be lost of the fact that Vanessa was a 16 year old child, who according to the post mortem report weighed 66.5 kg at the time of post mortem and was opiate naive.

Accordingly, on the evidence presented and bearing in mind particularly that there is no evidence, only opinion, as to the possibility of seizure, the evidence in my view supports a finding that Vanessa died as a result of respiratory arrest due to the depressant effects of opiate medication. I propose to return that as my formal finding.

Recommendations.

In regard to formal recommendations, it would appear that the passage of time and the recommendations flowing from the Root Cause Analysis have addressed the major problems identified surrounding the death of Vanessa Anderson. I am now in possession of the document titled "Guidelines for the administration of analgesia and the use of anti-convulsant therapy in the treatment of mild closed head injury" dated December 2007. This document has been tendered in evidence and is marked as Exhibit 19.

The above document has been prepared by the Department of Health and has been designed to assist clinicians across NSW in delivering optimal care for patients with closed head injuries. On the assumption that these guidelines will now be disseminated to all area health services, the need for formal and specific recommendations may no longer be necessary.

I do not propose to make any recommendation in regard to the transfer of the Coronial records to the Health Care Complaints Commission (HCCC) on the basis that I am aware that a complaint is currently before the Commission and under a Memorandum of Understanding between the office of the State Coroner and the HCCC there is

provision for an exchange of information. The HCCC of course is bound by an orders made by the Coroner, as in this case, as to non-publication.

SUMMARY.

The death of Vanessa Anderson at the very young age of 16 years was a tragic and avoidable death. While this Court has indicated that specific formal recommendations pursuant to Section 22A of the Coroners Act, 1980, are not necessary due to the actions that followed the Root Cause Analysis, the circumstances of Vanessa's death should constantly remain in the forefront of the minds of all medical practitioners, nursing staff, hospital administrators and the NSW Department of Health who are responsible for providing medical care and treatment to the residents of NSW.

Vanessa's case should be used as a precedent to highlight how individual errors of judgment, failure to communicate, failure to record accurately and poor management of staff resources, cumulatively led to the worst possible outcome for Vanessa and her family. As a Deputy State Coroner for the past 6 years I have regrettably presided over many inquests involving deaths in hospitals. In many of those cases one error or omission, sometimes a serious one led to death, however, I have never seen a case such as Vanessa's in which almost every conceivable error or omission was detected and those errors continued to build one on top of the other.

If one had sat down and planned the worst possible case scenario for Vanessa from the time she was struck by the golf ball, it could not have been done better. Every conceivable factor appeared to be favoured against her. The chronology of those factors include:-

- indecision as to whether Vanessa should be admitted to RNSH, Westmead or another hospital,
- failure to communicate to Dr Little that Vanessa was admitted under his care,
- a shortage of neurosurgery registrars on call on 6/11/2005 due to training courses in Melbourne,
- Dr Bakar, neurosurgical fellow was performing registrar duties and was over burdened with work and tired, he considered but did not prescribe anti-convulsants,
- Dr Williams who was the senior neurosurgical resident at the time had only worked in the neurosurgery unit for 2 weeks,
- Dr Bezyan was an intern on her first day in the neurosurgical unit,
- Record taking and clinical notes where either non existent or deficient,
- Dr Little's directive after first seeing Vanessa to chart and administer Dilantin was not followed,
- Concerns raised by Mrs Anderson regarding side effects of Dilantin were not communicated or further advice sought from Dr Little,
- A failure by Dr Ismail to identify that Vanessa had been chartered for Panadeine Forte,
- A failure by Dr Ismail to consult Dr Little in regard to increased analgesia,

- A failure by medical staff to be aware of general policies which require consultation with the treating Doctor in cases where constraints to the quantity and type of analgesia should have been known,
- A failure to conduct neurological examinations as per the set time frames,
- The wisdom, albeit for good intentions in regard to privacy, of placing Vanessa in a room furthest away from the Nurses station.
- Failure to record what may have been a significant event at about 1am on 8/11/05.

There is little doubt that the NSW Health System, while certainly staffed by dedicated professionals is labouring under increased demands and expectations from the general public. The recent Walker Inquiry, the Coronial Inquiries into deaths at Camden and Campbelltown Hospitals, the Upper House Inquiry into RNSH and the many matters reported in the media concerning adverse incidents in Hospitals in NSW is testimony to a Health System that is labouring under pressure from the demands placed upon it. Unfortunately the same issues are invariably identified, not enough Doctors, not enough Nurses, inexperienced staff, poor communication, poor record keeping and poor management. These are systemic problems that have existed for a number of years and regrettably they all surface in the death of Vanessa Anderson. In my role as a Coroner, my primary responsibility is to Vanessa and to provide answers to her family. In so doing, however, it is almost impossible to avoid comment on the unfortunate repetition of the same systemic problems that continue to surface. As a Coroner I can not fix that problem, however, the government of the day has the responsibility to provide adequate resources, training and staff to ensure the delivery of appropriate and timely medical services.

As a Coroner I have also noted, and it is to the credit of the respective Area Health Services, that when an adverse hospital death is reported to the Coroner, there is usually an internal review (RCA) and as in Vanessa's case recommendations made and implemented. The challenge for the Department of Health in my view is to approach the identified problems holistically and identify that unfortunately the same errors are repeating themselves. It may be timely that the Department of Health and or the responsible Minister consider a full and open Inquiry into the delivery of health services in NSW.

Formal Finding.

That Vanessa Ann ANDERSON died on the 8th November 2005, at the Royal North Shore Hospital, Sydney in the State of New South Wales from a respiratory arrest due to the depressant effect of opiate medication.

Magistrate Milovanovich.
NSW Deputy State Coroner.
Decision handed down at Westmead Coroners Court on 24/1/2008.