Findings of the inquest into the death of Kathryn Marnie Sabadina.

The Coroners Act 1958 provides in s43(1) that after considering all of the evidence given before a coroner at an inquest the coroner shall give his or her findings in open court. What follows are my findings in the inquest held into the death of Kathryn Marnie Sabadina.

Introduction

On Sunday 17 December 2000, the pain from an infected eye tooth that had been plaguing Kathryn Sabadina for four or five days became too much to tolerate and she accepted the offer of her dentist to have it removed under a general anaesthetic at the Charters Towers Hospital. As arranged, she went to the hospital at about 5.00 pm and was soon taken to theatre. General anaesthesia was administered and the patient lost consciousness. Almost immediately, difficulty was experienced with ventilating the patient and it became apparent that an emergency was developing. After some time, assistance was summoned and a senior anaesthetist was consulted via the telephone. Despite the attempts of numerous people to assist in her resuscitation, Ms Sabadina died without having the tooth removed or regaining consciousness.

These findings seek to explain how that occurred and determine whether anyone should be committed for trial in connection with the death. They also reflect upon the process by which the competence and suitability of a foreign trained doctor to work in Queensland was assessed and comment on whether that may have contributed to the death. These findings also consider the adequacy of the response of the Queensland Medical Board to the issues brought into focus by this death.

The Coroner's jurisdiction

Before turning to the evidence, I will say something about the nature of the coronial jurisdiction.

The basis of the jurisdiction

Although the inquest was held in 2005, as the death being investigated occurred before 1 December 2003, the date on which the *Coroners Act 2003* was proclaimed, it is a "*pre-commencement death*" within the terms of s100 of that Act and the provisions of the *Coroners Act 1958* (the Act) are therefore preserved in relation to it.

Because the death occurred while Ms Sabadina was "*under an anaesthetic in the course of medical operation"* the attending doctors and the police who were summoned to the hospital were obliged by s12(1) of the Act to report it

to a coroner. Section 7(1)(v)confers jurisdiction on a coroner to investigate such a death and s7B authorises the holding of an inquest into it.

The scope of the Coroner's inquiry and findings

A coroner has jurisdiction to inquire into the cause and the circumstances of a reportable death.

The Act, in s24, provides that where an inquest is held, it shall be for the purpose of establishing as far as practicable:-

- the fact that a person has died,
- the identity of the deceased,
- when, where and how the death occurred, and
- whether anyone should be charged with a criminal offence alleging he/she caused the death.

After considering all of the evidence presented at the inquest, findings must be given in relation to each of those matters to the extent that they are able to be proven.

An inquest is not a trial between opposing parties but an inquiry into the death. In a leading English case it was described in this way:-

> *It is an inquisitorial process, a process of investigation quite unlike a criminal trial where the prosecutor accuses and the accused defends… The function of an inquest is to seek out and record as many of the facts concerning the death as the public interest requires.* [1]

The focus is on discovering what happened, not on ascribing guilt, attributing blame or apportioning liability. The purpose is to inform the family and the public of how the death occurred with a view to reducing the likelihood of similar deaths. As a result, the Act authorises a coroner to make preventive recommendations,[2] referred to as "*riders*" but prohibits findings or riders being framed in a way that appears to determine questions of civil liability or suggests a person is guilty of any criminal offence.[3]

The admissibility of evidence and the standard of proof

Proceedings in a coroner's court are not bound by the rules of evidence because s34 of the Act provides that "*the coroner may admit any evidence the coroner thinks fit"* provided the coroner considers it necessary to establish any of the matters within the scope of the inquest.

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[1] *R v South London Coroner; ex parte Thompson* (1982) 126 S.J. 625
[2] s43(5)
[3] s43(6)

This flexibility has been explained as a consequence of an inquest being a fact-finding exercise rather than a means of apportioning guilt; an inquiry rather than a trial.[4]

A coroner should apply the civil standard of proof, namely the balance of probabilities, but the approach referred to as the *Briginshaw* sliding scale is applicable.[5] This means that the more significant the issue to be determined, the more serious an allegation or the more inherently unlikely an occurrence, the clearer and more persuasive the evidence needed for the trier of fact to be sufficiently satisfied that it has been proven to the civil standard.[6]

Of course, when determining whether anyone should be committed for trial, a coroner can only have regard to evidence that could be admitted in a criminal trial and will only commit if he/she considers an offence could be proven to the criminal standard of beyond reasonable doubt.

It is also clear that a coroner is obliged to comply with the rules of natural justice and to act judicially.[7]This means that no findings adverse to the interest of any party may be made without that party first being given a right to be heard in opposition to that finding. As *Annetts v McCann*[8] makes clear that includes being given an opportunity to make submissions against findings that might be damaging to the reputation of any individual or organisation.

The investigation

I turn now to a description of the investigation. The death was immediately reported to police who attended and arranged for the transportation of Ms Sabadina's body to the Townsville Hospital mortuary. Photographs were first taken of the scene. Those officers also commenced an investigation into the matter by seeking to interview or obtain statements from all of those involved in the fatal incident. The Queensland Health Area District Manager took the sensible precaution of immediately quarantining all of the bio-medical equipment involved in the procedure until it could be tested.

Queensland Health also commenced an investigation into the death and other matters involving the doctor who administered the anaesthetic. That investigation was undertaken by the Director of Medical Services for the Townsville Health Service District and the Medical Superintendent of the Proserpine Hospital.

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[4] *R v South London Coroner; ex parte Thompson* per Lord Lane CJ, (1982) 126 S.J. 625
[5] *Anderson v Blashki* [1993] 2 VR 89 at 96 per Gobbo J
[6] Briginshaw v Briginshaw (1938) 60 CLR 336 at 361 per Sir Owen Dixon J
[7] *Harmsworth v State Coroner* [1989] VR 989 at 994 and see a useful discussion of the issue in Freckelton I., "Inquest Law" in *The inquest handbook*, Selby H., Federation Press, 1998 at 13
[8] (1990) 65 ALJR 167 at 168

The Queensland Health investigation was completed promptly – the report is dated 20 February 2001. The same can not be said of the investigation undertaken by the Queensland Police Service. That report was not forwarded to the coroner until 25 November 2003, nearly three years after the death. I have not sought to establish the cause of this delay as little would be achieved by that and I am confident that changes made since this death would make a repetition of it most unlikely. However, I note that the delay in the completion of other steps in the process could have impeded the police investigation; for example, the autopsy certificate was not completed until 8 April 2002 and it suggested heart disease was the cause of death. It may also be that the transfer of one of the officers initially involved in the investigation and the resignation of the other contributed to the delay. What ever the reason or reasons for the delay, it does demonstrate the urgent need for the recent reform of the coronial system and suggests another approach is needed to the investigation of deaths in a medical setting. I will return to this issue in the "Recommendations" section of these findings.

The impact on the family

On behalf of the court, I apologise to the family for this unacceptable delay. Inevitably, the failure of the system to expeditiously deal with this sad death has exacerbated the grief and sense of loss that will always flow from such a death. I express my sincere condolences to the family of Ms Sabadina for the loss of their mother/sister/daughter. It became apparent when listening to Ms Sabadina's father give evidence that she was a cherished member of a close and loving family. She obviously must have suffered during the breakdown of her marriage some years ago but at the time of her death that aspect of Ms Sabadina's life had improved; she was in a stable relationship and engaged to be married. It is also clear that Ms Sabadina was a loving and dedicated parent to her two children, one of whom is severely disabled and requires 24 hours a day attention. With her death, her aging parents have taken on the demanding role of caring for these two teenagers, knowing full well that nothing can replace a mother's love. While the dignified patience that Mr Sabadina displayed when giving evidence and attending all of the long hours this inquest sat convinced me that he will cope with the demands of caring for his grandchildren; it is not a burden grandparents should need to bear.

I feel it appropriate to mention too, that in discussion with counsel assisting, Mr Sabadina indicated that he was not pressing for those responsible for the death to be prosecuted or punished. He and his family merely wanted a careful explanation of what occurred and some reassurance that, if possible, other families be spared the anguish the death of Ms Sabadina caused hers. While the question of a prosecution is ultimately a matter for me to decide, the family's willingness to forgive and their altruistic concern for others is admirable.

The inquest

Directions hearings

The death was initially reported to the coroner at Charters Towers who, under the *Coroners Act 1958*, held office as a result of his being a clerk of the court. However, when it became apparent that an inquest should be held into the matter, responsibility for it was transferred to a magistrate coroner in Townsville.

A directions hearing was convened on 27 October 2004 at which leave to appear was granted to the family of Ms Sabadina, Queensland Health, and the Queensland Nurses Union as representatives of the nurses who were expected to give evidence. Mr Tate of Crown Law was appointed counsel assisting the coroner. The coroner advised the court that notice of an intention to convene an inquest had been sent to various addresses which it was thought might result in Dr Maree, the doctor who administered the anaesthetic, being informed of this decision. Various files were tendered and an order was made authorising those who had been granted leave to appear to access them.

After being assured by Ms Sabadina's father that hearing the inquest in Townsville, rather than Charters Towers, would not inconvenience him, this centre was settled upon as the venue for the hearing.

Another directions hearing was held on 9 February 2005 at which the presiding coroner advised the court that he had received a letter from Dr Maree indicating that he considered he had given sufficient response to the issues raised by the death in his statement to the police and in his clinical notes. He did not, therefore, intend to attend the inquest. Also at this hearing, Mr Tate read into the record a list of the witnesses it was proposed to call at the inquest and it was indicated that opinions were being sought from expert anaesthetists.

After a further directions hearing on 10 May at which more documents were tendered and the obtaining of expert reports was again discussed, the inquest proper commenced on 18 July 2005. It proceeded for five days during which time 20 witnesses gave evidence and 49 exhibits were tendered. At the commencement of the inquest, senior counsel sought and was granted leave to appear on behalf of Dr Maree. That counsel indicated that his client would not be attending the inquest and would not voluntarily give evidence. As it was obvious that Dr Maree could, if called to give evidence, object to answering most questions on the basis that he might incriminate himself, I decided no good purpose would be served by seeking to compel his attendance.

Regrettably, three days before the inquest was due to commence, His Honour Mr Smith, the coroner who had carriage of the matter since it was identified as needing an inquest, was injured and could not preside over the inquest. I

therefore agreed to hear the matter. I am sure Mr Smith was disappointed by this unfortunate turn of events and I pay tribute to the work he did on the matter before being forced by ill-health to withdraw.

The evidence

I turn now to the evidence. Of course, I can not even summarise all of the information contained in the exhibits and transcript but I consider it appropriate to record in these reasons the evidence I believe is necessary to understand the findings I have made. The evidence can be conveniently divided into the accounts of eye witnesses and the opinions of experts consulted after the death.

Eye witness accounts

On Wednesday 13 December 2000, Ms Sabadina attended the surgery of her dentist in Charters Towers, Mr Lingard, complaining of a severely aching right eye tooth. Mr Lingard removed the nerve and inserted an antibiotic dressing to combat the infection he considered likely to be the cause of the pain.

Two days later, Ms Sabadina telephoned Mr Lingard and advised him that the pain had not subsided and that the infection was now causing her face to swell. As a result of advice given to her by her dentist Ms Sabadina visited a doctor and was prescribed a course of oral antibiotics. She also attended the Townsville Base Hospital on Friday night and was administerd a pain killing injection that she later told Mr Lingard provided some relief for about four hours.

By Saturday morning Ms Sabadina was again in great pain and her partner telephoned Mr Lingard and arranged for her to come to the surgery at 3.00 pm on Saturday afternoon. Mr Lingard undertook further treatment of the infected tooth that seemed to provide some relief. However, she was still quite desperate about the pain and indicating that she could not tolerate it any longer. They agreed that if things did not improve overnight a different antibiotic would be tried.

The next day Ms Sabadina's father left a message on Mr Lingard's answering machine indicating that his daughter's pain was worse. Early in the afternoon Ms Sabadina was administered a pain killing injection at the Charters Towers Hospital and at about 3.00, in company with her partner and her father she again went to Mr Lingard's surgery.

As a result of the earlier contact with Mr Sabadina, Mr Lingard had already made inquiries with the doctor on duty at the Charters Tower Hospital, Dr Manderson, about the possibility of having a hospital doctor administer a general anaesthetic while Mr Lingard extracted the tooth. In response to that inquiry, Dr Maree, the Medical Superintendent of the hospital called back and after making some general inquiries about Ms Sabadina's condition agreed

that he would administer the anaesthetic. He told Mr Lingard that he and the patient should come to the hospital at about 5.00 with a view to going to theatre at 5.30.

In that telephone call, Mr Lingard advised Dr Maree that Ms Sabadina suffered from asthma and bronchitis and that she was allergic to penicillin and Ventolin. This information was also gathered from Ms Sabadina by the nurses who admitted her to the hospital later that afternoon.

As Ms Sabadina was being prepared for surgery, Dr Maree asked Mr Lingard to get her to sign the informed consent form. Mr Lingard did this but admitted in evidence that he did not explain the risk of the anaesthetic as he did not realise that he was supposed to do so and indeed he was not sufficiently knowledgeable of those risks to effectively explain them to the patient.

Ms Sabadina was extremely anxious about the operation; she was crying and had a heart rate of about 100 when she was admitted to the ward. After some general health information was taken from Ms Sabadina and she showered and changed, she was transferred to the operating theatre. Before administering the anaesthetic agents, Dr Maree asked Ms Sabadina whether she had previously had a general anaesthetic. She confirmed that she had and that it had been uneventful. An intravenous cannula was inserted in Ms Sabadina's arm. The anaesthetic circuit that was to deliver the gases that would support the patient and maintain her in an unconscious state while she was being artificially ventilated was checked for leaks. It seems likely, but is not certain, that a capnograph that would measure carbon dioxide exhaled by the patient was also incorporated into this circuit.

Ms Sabadina was connected to the heart monitor and a blood pressure cuff was applied to her arm. She was then "pre-oxygenated" by a face mask being placed over her mouth and nose through which pure oxygen flowed. This was done to wash out the nitrogen from her lungs and to saturate her lungs and blood with oxygen so that she had a reserve to tide her over if, after she was rendered unable to breathe herself as a result of the anaesthetic, there was any delay while the artificial ventilation was being established.

At 5.40, Dr Maree administered the anaesthetic agents intravenously. Propofol was given to render the patient unconscious. In his statement Dr Maree says that he did not need to administer all of the 200 mg he had drawn up before Ms Sabadina went to sleep. One hundred mgs of suxamethonium, referred to in the medical notes as Scoline, was then given as a muscle relaxant to enable the patient to be intubated.

Ms Sabadina was then intubated by a 6.5 mm tube being fed up her nose and down her throat. Dr Maree told the Queensland Health officers who investigated the death that he tested the tube before inserting it to ensure it was patent. As this was to be the route by which the patient received life sustaining gases, it was crucial that the tube passed through her larynx into

her trachea and did not divert into the oesophageus from where it would only deliver oxygen into the stomach rather than the lungs. All witnesses say the intubation appeared to go smoothly. Dr Maree says that as he was inserting it, he checked that the tube was correctly positioned by looking down the patient's throat with a laryngoscope that enabled him to see the end of the tube pass between the vocal cords and into the larynx. He used specially designed forceps to aid him in guiding the tube into place. The cuff around the distal end of the tube was then inflated to seal the airway around the outside of the tube by filling the space between the tube and the inner wall of the trachea. The outer end of the tube was connected to the anaesthetic circuit which would be the conduit by which the oxygen, nitrous oxide and other agents would flow into the patient with the assistance of the ventilator. Also on this circuit was an inflatable bag that enabled the clinicians to manually ventilate the patient if that became necessary.

Dr Maree then indicated to Mr Lingard that the tooth extraction would soon be able to commence. However before this could happen, Nurse Ward noted that Ms Sabadina's blood oxygen saturation level had dropped from 97% to 88% immediately after intubation and then continued dropping rapidly to 64%. At about this time Ms Sabadina's throat was seem to be moving involuntarily and she seemed to be gagging. Dr Maree also had increasing difficulty in ventilating the patient. High pressure need to be placed on the bag to enable air to enter the lungs. It seems clear that Dr Maree recognised the possibility that, despite his initial confidence, the nasotracheal tube may have not entered the larynx. Therefore both he and a nurse listened to both sides of the patient's chest with stethoscopes to ensure that air was entering the lungs and concluded that it was. However as the dropping oxygen saturation level shown on the monitor was confirmed by cyanosis and bradycardia – her heart rate had dropped to 40 beats per minute - it was apparent that something was seriously wrong. One of the nurses who gave evidence, Beverly Guy, said that at about this stage she lifted the sheet covering the patient and confirmed that her chest was rising and falling rather than her stomach distending which would have indicated an oesophageal misplacement of the tube. When doing this the nurse noticed a distinct red flush or rash on Ms Sabadina's legs, extending up over the front of her trunk. Nurse Kelly also says he saw a pink tinge on the patient's upper torso when he came into the theatre at about 5.55. Nurse Guy says she pointed this out to Dr Maree. He did not respond in a way that indicated that he thought it was significant.

As already indicated, Dr Maree initially suspected that the nasotracheal tube may have not been correctly placed and therefore checked it by looking down the patient's throat with a laryngoscope and by himself listening for air entry and having a nurse do the same. These checks re-assured him that misplacement of the tube was not the cause of the problem. He then queried the reading from the pulse oximeter and requested another portable meter be brought into the theatre. But in the short time it took for this to be done it seems Ms Sabadina deteriorated further as when the second oximeter was connected no pulse or blood oxygen reading could be obtained, presumably

because her blood pressure had dropped too far. The anaesthetic gases were then turned off and 100% oxygen was delivered by the ventilator from this point on. Also at about this time, in accordance with an order from Dr Maree, Ms Sabadina was given 4 mg of Vecuronium, a long acting muscle relaxant that was presumably given in the hope that it would lessen the resistance of the chest wall muscles to the ventilation. It did not help and the symptoms of hypoxia continued.

At 5.45, approximately 5 minutes after Ms Sabadina had been rendered unconscious, Dr Maree appears to have decided to abort the process and he ordered to be administered 2.5 mg of neostigmine, a drug that reverses the paralysing effect of Vecuronium. He says in his statement to police that he was aware that it takes about 25 minutes to come into effect but in view of this fact his reason for administering the neostigmine is difficult to understand. In conjunction with that drug, atropine was also administered twice in quick succession in doses of 600 mcg and 400 mcg. Atropine is usually administered with neostigmine to prevent the slowing of the patient's heart rate that can be cause by the Neostigmine. Adrenaline was also administered soon after 5.45pm in an effort to counter possible anaphylaxis and to assist with stimulation of the heart. Hydrocortisone was also given. It is thought to attenuate allergic responses but is unlikely to have a significant impact in an emergency such as was occurring in this case.

At about 5.55pm other nurses were summoned to the operating theatre to assist. This was done by pushing on the patient call buzzer three times in quick succession.

Dr Maree says that because he was concerned about the pressure required to inflate the lungs, he disconnected the nasotracheal tube from the ventilator, inserted it in his mouth and commenced blowing expired air into it. He says that after each breath he would take the tube from his mouth and the air coming back out, coupled with his observation of the chest rising and falling convinced him that the tube was correctly sited.

At least two of the nurses say they suggested summoning the other doctor who lived in the hospital grounds but this was declined by Dr Maree.

Over the next 10 minutes further adrenaline and hydrocortisone were administered together with neostigmine and atropine. The times and doses were recorded contemporaneously by one of the nurses and can be found in exhibit 9.

Shortly before 6.15, Dr Manderson was called and he said he ran over to the operating theatre and was there very quickly after being called. There is some inconsistency between his account and Dr Maree's as to the precise timing and sequence of events but in view of what was transpiring that is not surprising and I do not conclude there has been any attempt to mislead.

Dr Manderson says that when he arrived in the theatre, Dr Maree was ventilating the patient by blowing into the nasotracheal tube and the nurses were involved in administering the drugs referred to above.

Soon after Dr Manderson arrived he was asked to ring Dr Simpson, a senior anaesthetist at the Townsville General Hospital. As a result of referring to his mobile phone records, Dr Simpson was able to say this call was received at 6.15.

Dr Simpson then set about familiarising himself with the events that had occurred and in assisting those in the Charters Towers Hospital attempt to deal with the emergency. He suggested switching from nasal tracheal tube to an oral tracheal tube; switching to an independent oxygen source; providing the patient with intravenous fluids and giving repeat doses of the drugs that had already been given. All this was done.

Soon after Dr Simpson became involved, Ms Sabadina's heart stopped beating and cardio pulmonary resuscitation was commenced. From that time Dr Simpson advised the doctors in Charters Towers of the appropriate resuscitation procedures in accordance with the Australian Resuscitation Council guidelines. It is apparent that on a number of occasions some electrical activity from Ms Sabadina's heart was detected and acted on but, ultimately, at 7.20 the doctors and nurses who had been desperately trying to save Ms Sabadina ceased efforts to resuscitate her and she was declared dead.

Police were immediately advised and an investigation commenced.

Dr Simpson advised Dr Manderson that blood should be taken from Ms Sabadina's body promptly to enable the level of tryptase in the serum to be tested. This test can assist in confirming the occurrence of anaphylaxis but only if the serum is collected within three or four hours of death. That did not happen in this case. Dr Manderson gave evidence that he told Dr Maree of Dr Simpson's advice but took no other action. There is insufficient evidence to conclude that Dr Maree deliberately sought to obstruct the gathering of this evidence. The real possibility that he was over whelmed by the tragedy can not be excluded. In any event the sampling of the blood would have required an order of a coroner and it is unclear whether that could have been arranged within the necessary time frame. It is an issue I will deal with in the recommendations I make later I these findings.

Another failure that hindered the later investigation was the turning off of the anaesthetic machine without a record of the machine's data being down loaded and printed. There was some evidence that Dr Maree was advised to do this before the machine was turned off but it is contradicted by other evidence suggesting that Dr Manderson caused this to happen. I consider there is insufficient evidence to show that Dr Maree did this to deliberately destroy evidence.

It is also appropriate to acknowledge the dedicated and professional approach demonstrated by all of those who were involved in Ms Sabadina's care. While some aspects of Dr Maree's conduct can be severely criticised, there is no doubt that on the night he did all that he knew to try to save her. The evidence of Dr Manderson running from his quarters to the theatre and of the nurses all doing whatever they could to help Ms Sabadina was poignant. When coupled with the attendance of those nurses at court throughout the hearing, I am convinced that callous disregard for Ms Sabadina's welfare played no part in this death. I consider the evidence indicates all of those involved in the care of Ms Sabadina diligently did their best, even if, in the case of Dr Maree, that was not to the standard that might reasonably be expected of a person in his position.

Expert evidence

As mentioned earlier, after the death, the investigation proceeded in a halting and slow manner to its ultimate conclusion. An autopsy was performed on Ms Sabadina's body on 20 December 2000 but the final autopsy certificate containing the Government Medical Officer's opinion as to the cause of death was not produced until 8 April 2002. The cause of death found by the Government Medical Officer was "coronary atherosclerosis". For the reasons set out below I do not accept that as accurate.

It is apparent from the evidence of those involved in the anesthetising of Ms Sabadina, that soon after the anaesthetic agents rendered her unable to breathe naturally she was unable to be adequately ventilated, i.e. insufficient oxygen was entering into her lungs. This is confirmed by the falling oxygen saturation percentages shown on the oximeter and the concomitant dropping of her pulse rate. The neuropathology examination found that this resulted in acute neuronal necrosis which is consistent with global hypoxia – brain tissue death caused by inadequate oxygen supply. The central question I need to resolve is how this came about.

In considering this issue I was greatly assisted by the three anaesthetists who gave evidence at the inquest, Dr Simpson, Dr Callanan and Dr MacKay. The first of these was involved in the treatment of Ms Sabadina in that his advice was sought during the emergency. I do not consider that involvement detracted from his ability to give an objective account of what occurred or how it came about. The second has for many years been the director of anaesthetics at the Townsville General Hospital. He is widely published and highly regarded. The third is an eminent practitioner and medical researcher from Victoria who has held numerous notable teaching and examining posts. She reviewed all of the relevant exhibits and sat through the entire inquest. As a result of the qualifications and experience of each of these witnesses, I have no hesitation in acknowledging them as experts whose opinions should be given great weight.

All agree that the difficulty experienced in ventilating Ms Sabadina could be due to three possible causes:-

- A misplaced nasotracheal tube;
- A defect in the intubation tube or anaesthetic or ventilation equipment; or
- An anaphylactic reaction to a drug used in the anaesthetic.

I shall deal with each of those possibilities.

A misplaced nasotracheal tube

If a nasotracheal tube is unintentionally inserted into the esophageus the gases flowing from the ventilator will go into the stomach rather than the lungs**.** While the insertion of a nasotracheal tube is a relatively straight-forward procedure, it can also easily, unintentionally enter the oesophagus. It can be very difficult to tell that this has happened by relying only on clinical checks. The experts who gave evidence in this case said that there have been many instances of experienced nurses and doctors believing they have heard air entering the lungs by applying a stethoscope to the axillae - the quadrants on the upper sides of the chest - subsequently being shown to be mistaken. For that reason, to confirm that the tube is properly positioned, all Australian hospitals have for many years relied on a respiratory carbon dioxide monitor to show in graphic form on a screen, the waves of carbon dioxide which coincide with the breathing cycle of the patient. This enables immediate and absolute confirmation that the tube is correctly placed. Such a device was fitted to the equipment used in the procedure that ended in Ms Sabadina's death but it was ignored; an issue I shall come back to later in these findings.

There is, however, other evidence that persuades me that the tube was properly positioned:-

- The difficulty Dr Mare described when trying to ventilate Ms Sabadina was consistent with the term frequently used in such cases – she was "*rock hard*", where as when the tube is wrongly placed, at first at least, gas will flow with only slight resistance into the stomach.

- Not only did Dr Maree say he listened and heard the air entering the lungs of Mrs Sabadina, but two nurses and another doctor also gave evidence to this effect. As mentioned earlier, apparently mistakes can easily be made when doing this but the more clinicians who listen, the less likely it is that all will be mistaken.

- At least two nurses say they observed Ms Sabadina's chest rising and falling and say that they checked and found no signs of her stomach distending as would occur if the gases from the anaesthetic machine were flowing into her oesophagus.

- Dr Maree says he checked the position of the tube as he inserted it into Ms Sabadina's larynx by watching it with a laryngoscope – a device that is put in the patient's mouth and enables the user to look down the throat. Dr Maree says he saw the tube go between the vocal cords which excludes the possibility of the tube going into the oesophageus.

- When the difficulties in ventilating Ms Sabadina were first encountered Dr Maree says he again inserted the laryngoscope and visually confirmed the correct placement of the tube.

- When Dr Maree took the unusual step of disconnecting the line running from the endrotracheal tube to the ventilator and put it to his mouth, he says he could see Ms Sabadina's chest rising as he exhaled and when he took the tube from his mouth after each breath he could feel expired air returning through the tube as her chest fell.

I therefore dismiss the misplacement of the nasotracheal tube as the cause of the hypoxia.

A defect in the endotracheal tube or anaesthetic machine or ventilator

A number of witnesses described how problems relating to the tube used to intubate Ms Sabadina or the way the tube performed could have compromised attempts to effectively ventilate her. I shall deal with each of those possibilities:-

- The possibility that it may have been defective before it was used is able to be discounted as a result of the evidence of Dr Maree and Nurse Ward that they checked the tube before commencing the procedure.

- It was also necessary to consider whether the tube could have become blocked during insertion by, for example, nasal polyps or mucus in Ms Sabadina's throat being forced into the distal end of the tube. I am satisfied that these possibilities can be rejected on the basis of the evidence of a number of witnesses that after the tube was removed, it was checked and found to be free of any obstruction.

- A third possibility is that the cuff which is attached to the tube near its distal end and is inflated to fill the space between the outside of the tube and the inside of the patient's trachea may have prolapsed over the end of the tube blocking it. Dr Callanan conceded that this can happen but says that the effect of this malfunction is discernable by what he described as "*a ball valve effect*" whereby air can flow into the lungs but the tube becomes blocked when the positive pressure of the

ventilator ceases and the air is being expelled. Dr Callanan was certain that it quickly becomes readily apparent when this is occurring and it does not fit with what was experienced in this case. I consider it can be discounted.

- Another possibility is that the tube can become kinked in the patient's throat and thus prevent the easy entry or egress of air. In Dr Callanan's opinion this no longer happens since plastic tubes have replaced red rubber. Dr Mackay was not so confident that this could never happen. However, in view of the evidence that a reasonable air flow was eventually established I consider that it is unlikely that it explains the initial inability to ventilate Ms Sabadina.

Another technical difficulty that needs to be considered is the possible malfunctioning of the anaesthetic equipment. Dr Maree, for example, at first considered the patient's falling heart rate and oxygen saturation level could be a baseless artefact of a defective pulse oximeter and he ordered another be brought into the operating theatre. The new machine failed to record any levels, because, I believe, the original meter was functioning correctly and by the time the next machine was retrieved and fitted to the patient she had already fallen into a dangerous hypoxic state rendering her blood pressure so low that her pulse could not be measured by this machine.

Dr Simpson, when he was called for advice part way through the emergency, queried whether the flow of oxygen from the anaesthetic machine was functioning correctly. He suggested that another source of oxygen be utilized. This was done with no resulting improvement in the patient's condition. However, by this stage the patient had arrested, so even if poor oxygen flow from the original equipment had been a factor, little improvement could be expected as a result of introducing the alternative oxygen source at this stage.

In any event, immediately after the death of Ms Sabadina, the anaesthetic equipment was quarantined and two days later it was tested by expert technicians from Biomedical Technology Services, a service unit of Queensland Health Pathology and Scientific Services. To reduce any perception that the responsibility of staff from this unit to service and maintain the equipment could make their review of it post incident less than impartial, technicians from Brisbane, who had no previous involvement with the equipment, examined it. Their tests, which are detailed in exhibit 19, found no evidence of any malfunctioning. All of the equipment was certified as being fit for clinical use.

In summary, I am unable to completely discount the possibility that the nasotracheal tube may have kinked and restricted air flow. However, I consider the likelihood of that occurring to be so low that, having regard to the other more likely possibility discussed below, I am comfortable discounting it as an explanation of the chain of events that followed the induction of Ms Sabadina and led to her death.

An anaphylactic reaction to the anaesthetic

"An anaphylactic reaction or anaphylaxis is an exaggerated immunological response to a substance to which an individual has become sensitised.

….

Any drug can potentially cause an allergic reaction but agents used in anaesthetic practice that have been implicated in producing anaphylactic reactions include Thiopentone, suxamethonium (and) non-depolarising muscle relaxants…"

…

Clinical presentation of anaphylaxis

The commonest features are cardiovascular. Not all signs occur in every patient - one feature may be more obvious than others. Reactions range from minor to life-threatening. An awake patient will have a range of symptoms, but the diagnosis is more difficult in an anaesthetised patient.

Suspect anaphylaxis in an anaesthetised patient who suddenly becomes hypotensive or develops bronchospasm, particularly if this follows administration of a drug or fluid.

- ***Cardiovascular.*** *Hypotension and cardiovascular collapse. Tachycardia, arrhythmias, ECG may show ischaemic changes. Cardiac arrest.*
- ***Respiratory System****. Oedema of the glottis, tongue and airway structures may cause stridor and airway obstruction. Bronchospasm may be severe.*
- ***Cutaneous****. Flushing, erythema, urticaria*

These observations are quoted from an advisory notice posted on the web site of World Anaesthesia & the World Federation of Societies of Anaesthesiologists in 2000 entitled *Update in Anaesthesia, Practical Procedures, Anaphylaxis.* The full text of the advisory is contained in exhibit 25(1). I am grateful to Dr Mackay for drawing the material to the court's attention.

Each of the experts who gave evidence expressed opinions consistent with the excerpts that I have just quoted.

Applying those views to this case I note that the difficulty in ventilating the patient was experienced very soon after the anaesthetic agents, including suxamethonium was given. Such a reaction is consistent with bronchospasm – the involuntary contracting of the smooth muscles of the bronchial walls - blocking the airways.

Although there is no record of tachycardia in this case as is usual when anaphylaxis occurs, this symptom may have only been brief and unnoticed in

the stressful situation created when ventilation could not be achieved. The deprivation of oxygen then caused the blood pressure and heart rate to plummet.

It is perhaps surprising that the cardiac arrest did not occur until approximately 30 minutes after induction but it may be that the adrenaline given to the patient had some effect in stimulating the heart although ultimately it failed to save her.

It is also relevant that two of the nurses noticed reddening of the skin of Ms Sabadina consistent with urticaria. Dr Manderson did not see any such rash when he was directed by Dr Simpson to look for it, but according to Dr Callanan, the reddening caused by anaphylaxis is transient and it would not be surprising if it were gone when Dr Manderson saw Ms Sabadina some 30 minutes after she was first induced.

The oedema of the aryepiglottic folds found at autopsy are also evidence of an allergic reaction.

Ms Sabadina had undergone medical procedures before that would almost certainly have involved her being given the same or similar drugs as were used in this case. The absence of any detected, adverse reaction in those cases was appropriately considered by Dr Maree when he decided it was safe for him to proceed. Unfortunately, although an earlier, adverse reaction can provide a warning to avoid the future use of particular anaesthetic agents, it is also the case that the previous apparently uneventful exposure can contribute to the development of sensitivity to the drugs that can then result in a subsequent fatal allergic reaction.

Having regard to these matters and the exclusion of other possible causes of the death as outlined earlier in these reasons, I am satisfied that anaphylaxis was the dominant cause of Ms Sabadina's death. I accept the evidence of Dr Ansford and Dr Callanan that the coronary atherosclerosis found at autopsy was an underlying condition that could have contributed to cardiac arrest when her cardio-respiratory system was compromised by the anaphylaxis. The low blood pressure and the poor oxygenation would have impaired the ability of the heart to cope with the stenosis presented by the atheroma. I do not accept that it was an independent cause of the death – that is, I consider that without the anaphylaxis the coronary atherosclerosis would not have caused Ms Sabadina's death on the day of this procedure.

Findings required by s43(2)

I am required to find, so far as has been proved, who the deceased was and when, where and how she came by her death. As mentioned earlier, these are not criminal proceedings and I am therefore to apply the civil standard of proof when considering these issues.

As a result of considering all of the material contained in the exhibits and the evidence given by the witnesses I am able to make the following findings.

Identity of the deceased – The deceased was Kathryn Marnie Sabadina

Place of death – Ms Sabadina died in the operating theatre at the Charters Towers Public Hospital

Date of death – She died on 17 December 2000.

Cause of death – Ms Sabadina died as a result of an anaphylactic reaction to an anaesthetic drug. Coronary atherosclerosis was an underlying condition that contributed to the anaphylaxis having a fatal outcome.

The committal question

The Criminal Code provisions concerning deaths in a medical setting

I am required by s43(2)(b) to find whether anyone should be charged with murder or manslaughter as a result of the death.

The Criminal Code in s291 provides that it is unlawful to kill anybody unless it is authorised, justified or excused by law. Such killings are either murder or manslaughter.

There is no evidence suggesting Dr Maree deliberately set out to harm Ms Sabadina. On the contrary, it is apparent that he agreed to administer the anaesthetic needed to enable her tooth to be extracted after being persuaded by her dentist that the procedure was urgently needed. In my view that excludes the possibility that he could be guilty of murder, which, in so far as is relevant to this case, requires proof that the accused intended to cause death or grievous bodily harm.[9]

Any person who unlawfully kills another in circumstances which do not constitute murder is guilty of manslaughter.[10]

There is no doubt that Ms Sabadina died while under the effects of an anaesthetic administered by Dr Maree, but does that mean he caused the death and can be held criminally responsible for it?

Section 288 of the Code needs to be considered when addressing that question. In so far as is relevant to this case it provides:-

> *It is the duty of every person who…undertakes to administer surgical or medical treatment to any other person,… to have reasonable skill and*

[9] s302(1)(a)
[10] s303

to use reasonable care in doing such act, and the person is held to have caused any consequences which result to the life or health of any person by reason of any omission to observe or perform that duty.

That raises two further questions for consideration; did Dr Maree have reasonable skill and use reasonable care? If the answer to either of those questions is "no", I would then have to consider whether the death of Ms Sabadina resulted from such failure.

The skill and care of Dr Maree

In my view, having regard to the expert evidence given in this inquest concerning optimal anaesthetic practice, there is a significant body of evidence indicating that Dr Maree did not perform to the standard which could be reasonably expected of a medical practitioner administering a general anaesthetic. Without an opportunity to closely question Dr Maree as to how or why each of the aspects of his conduct which causes concern occurred, it is difficult to determine whether these apparent shortcomings were the result of ignorance – a lack of reasonable skill, or negligence - a lack of reasonable care. However, in my view nothing turns on that as any substandard practice which could amount to either failing can be considered without the need to specify into which category it falls.

In my view, the following aspects of Dr Maree's behaviour when attending to Ms Sabadina indicate that he did not have reasonable skill or did not exercise reasonable care during the procedure in question:-

- He did not perform a sufficiently comprehensive examination of the patient before administering the anaesthetic drugs.

- It seems he failed to ensure the patient had sufficient fluids from the outset, or as soon as it became apparent that anaphylaxis may be occurring. Dr Mackay said the patient would have needed many litres of intravenous fluid as soon as possible.

- He failed to regularly monitor the patient's blood pressure.

- He failed to give those staff sufficiently clear and definite instructions concerning the quantities of the drugs when they were suddenly required to prepare them.

- He did not know how to monitor the level of carbon dioxide in the exhaled breath of the patient. Difficulties he had experienced previously when administering anaesthetic with this equipment should have alerted him to his lack of a complete understanding of its operation and the dangers that posed.

- He did not recognise that he could immediately test the accuracy of the pulse oximeter readings indicating that an emergency situation was developing by merely clipping the lead to his finger or that of a nurse and instead wasted time in sending for another.

- He apparently did not recognise the symptoms of anaphylaxis as soon as could reasonably be expected and therefore failed to respond as quickly as could reasonably be expected.

- He administered Vecuronium, a relatively long lasting paralysing drug, when he could not have been sure that he had established an airway.

- He administered too small an amount of that drug to have any significant affect on the patient.

- Almost immediately after administering Vecuronium, he administered neostigmine and atropine to counteract the effects of the Vecuronium apparently unaware or not sufficiently caring that the countervailing properties of the neostigmine would not be effective for 20 to 25 minutes - far too late to assist the patient.

- Not only was the neostigmine unlikely to be of any benefit, it was a dangerous drug to administer to a patent suffering a low heart rate and falling blood pressure, even when accompanied by atropine.

- He failed to administer adrenaline sufficiently quickly to respond to the emergency.

- When it should have been apparent that the patient's low blood pressure and pulse rate would make the intravenous administration of adrenaline ineffective, he failed to take adequate steps to respond to this such as cardiac massage to ensure the adrenaline was circulated to the heart and bronchi. As Dr Mackay put it, "*you don't wait for the monitor to say asystole."*[11]

- He, without good reasons, disconnected the intubation tube from the oxygen supply and sought to ventilate the patient with his own expired breath containing only 14% oxygen when the patient desperately needed 100% oxygen.

- He did not, with sufficient urgency, summon assistance and instead waited nearly 30 minutes to call in another doctor whom he knew was readily available. The expert witnesses testified that Dr Mare should have done this as soon as it became apparent that something was amiss.

[11] transcript day 5 p111

- After attempts to resuscitate the patient were abandoned, Dr Maree failed to download from the anaesthetic machine the records that would have enabled a more accurate analysis of what had transpired during the procedure. Further, despite being advised to do so, he failed to ensure that a post mortem sample of blood was promptly taken to enable mast cell tryptase levels to be measured.

The standard of skill and care required

As I mentioned earlier, these criticisms of Dr Maree's conduct are based on evidence given by the various experts called at the inquest. Frequent attempts were made to have those experts distinguish between the optimal professional practice that one would expect of a specialist anaesthetist working in a modern metropolitan hospital with ready access to specialist colleagues and the conditions that prevailed in this case, namely a general practitioner operating in a country hospital with only a third year resident doctor to assist and other help available only by telephone. That is a difficult distinction to accurately delineate but one that is essential to the issue of whether Dr Maree should be charged with a criminal offence for the following reasons.

On their face, the words of s288 are redolent of civil negligence – *reasonable care, breach of duty* - but the courts have consistently and understandably held that to be criminally liable the prosecution needs to prove a more blameworthy departure from the expected standards than is required by a plaintiff seeking civil redress. The classic judicial articulation of this difference is found in *R v Bateman* [12] where Hewart LCJ said:-

> *In explaining to juries the test which they should apply to determine whether the negligence in the particular case amounted or did not amount to a crime, judges have used many epithets, such as "culpable", "criminal", "gross", "wicked", "clear", "complete". But, whatever epithet be used, and whether an epithet be used or not, in order to establish criminal liability the facts must be such that, in the opinion of the jury, the negligence of the accused went beyond a mere matter of compensation between subjects and showed such disregard for the life and safety of others as to amount to a crime against the State and conduct deserving punishment … It is desirable that, as far as possible, the explanation of criminal negligence to a jury should not be a mere question of epithets. It is in a sense a question of degree and it is for the jury to draw the line, but there is a difference in kind between the negligence which gives a right to compensation and the negligence which is a crime*

[12] *R v Bateman* (1925) 94 LJKB 791; [1925] All ER Rep 45; (1925) 19 Cr App R 8

Of course, as that quotation makes clear, it is not the role of the judge or a coroner to decide whether any alleged breach of duty is sufficiently culpable to amount to a criminal offence; that is a matter for a jury. A coroner must consider such allegations in a similar manner to a magistrate presiding over a committal hearing and simply rule whether a properly instructed jury could convict.[13] However, before considering that issue I also need to determine whether there is a sufficient causal link between any breach of duty allegedly committed by Dr Maree and the death of Ms Sabadina. The fact that a lack of skill or a failure to exercise due care may be able to be proven in relation to some aspects of Dr Maree's conduct does not necessarily warrant him being charged with Ms Sabadina's death. The prosecution would also need to prove that the breach of duty was directly responsible for the death, that she died, as the section says, "*by reason of any omission*." To take one example from the above listed concerns, while the failure to download data from the anaesthetic machine may be something that a reasonably careful doctor would not do, obviously that failure did not in anyway contribute to the fatal outcome.

I have found that her death was caused by anaphylaxis. There is no suggestion that any substandard care or practice by Dr Maree caused that reaction to occur or that he should have taken any precautions other than those that he did to determine whether it was likely to occur. While the literature refers to the use of skin prick tests as a possible way to assess a person's susceptibility to anaphylaxis, I accept Dr Callanan's evidence that to routinely test a patient in this way before administering anaesthetic when the patient has no history of previous difficulties is unwarranted on account of the very low rates of such adverse reactions.[14] Further it seems that the results of these tests are difficult to interpret and are not validated for some drugs.[15]

In this case the issue of causation can probably best be considered by asking whether the death of Ms Sabadina was reasonably preventable. Was there something or things that Dr Maree could reasonably have been expected to do or not do, that would have resulted in Ms Sabadina surviving.

Therefore the only issues to be determined are, when the allergic reaction occurred, was there anything Dr Maree could have done to avert its fatal consequences and, if so, was his failure to take that remedial action so grossly negligent or unskilful as to amount to a crime.

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[13] *Short v Davey* [1980]Qd R 412

[14] exhibit 25 (1) Laxenaire M. C. and Mertes P. M., 2001 ,*Anaphylaxis during anaesthesia. Results of a two year survey in France,* Vol 87, British Journal of Anaesthesia p2 – between 1 in 10,000 and 1 in 20,000 and this includes all adverse reaction a small proportion of which are fatal.

[15] See exhibit 25 (i) The Association of Anaesthetists of Great Britain and Ireland and the British Society of Allergy and Clinical Immunology, 2003, *Suspected Anaphylactic Reactions Associated with Anaesthesia,* London, p16

The "*Update in Anaesthesia*" quoted at length above gives guidance as to how a clinician should respond to an allergic reaction. Under the heading *"**Immediate Treatment of a Severe Reaction"*** it makes the following recommendations

- *Stop administration of the causal agent and call for help.*
- *Follow the ABC of resuscitation.*
- *Adrenaline is the most useful drug for treating anaphylaxis as it is effective in bronchospasm and cardiovascular collapse.*

The advisory note then gives detailed information on how to respond to each of the bodily systems impacted by anaphylaxis.

Airway and Adrenaline

- *Maintain airway and administer 100% oxygen.*
- *Adrenaline. If i/v access available give 1:10,000 adrenaline in 0.5-1ml increments, repeated as required. Alternatively give i/m 0.5 - 1mg (0.5 - 1ml of 1: 1000 solution) repeated each 10 minutes as required.*

Breathing

- *Ensure adequate breathing. Intubation and ventilation may be required.*
- *Adrenaline will treat bronchospasm and swelling of the upper airway.*
- *Nebulised bronchodilators (e.g. 5mg salbutamol) or i/v aminophylline may be required if bronchospasm is refractory (loading dose of 5mg/kg followed by 0.5mg/kg/hour).*

Circulation

- *Assess the circulation. Start CPR if cardiac arrest has occurred.*
- *Adrenaline is the most effective treatment for severe hypotension*
- *Insert 1 or 2 large bore i/v cannulae and rapidly infuse normal saline. Colloid may be used (unless it is thought to be the source of the reaction).*
- *Venous return may be aided by lifting the patient's legs or tilting the patient head down.*
- *If the patient remains haemodynamically unstable after fluids and adrenaline - give further doses of adrenaline or an intravenous infusion (5mg in 50mls saline or dextrose 5% through a syringe pump, or 5mg in 500mls saline or dextrose 5% given slowly by infusion). Uncontrolled intravenous boluses of adrenaline can cause dangerous surges in blood pressure and arrhythmias. Give the drug carefully, observing the response and repeating when required. Try to monitor the ECG, blood pressure and pulse oximetry.*[16]

It is apparent from the summary of the evidence set out earlier in these findings that Dr Marree implemented most, but not all, of these strategies. It

[16] exhibit 25(1) p3

seems likely that the adverse reaction was to suxamethonium and only one dose of this was administered. As soon as he suspected anaphylaxis, Dr Maree turned off the anaesthetic gas and switched to pure oxygen. As has been mentioned he administered Vecuronium and that has been criticised by all of the experts who gave evidence at the inquest but none of them suggested it would have exacerbated the allergic reaction and indeed Dr Callanan expressly rejected this possibility. Dr Maree did administer numerous doses of adrenaline and, after prompting from Dr Simpson had a bag of Hartmann's fluid put up. Although the evidence is a little unclear it seems that no fluid infusions were given prior to this, which was a long time after the reaction first occurred. If this could be proven, it was a major mistake but as I say, the evidence is unclear on this point. Consistent with the protocol quoted above; when asystole was observed he commenced and continued appropriate resuscitation procedures.

Dr Callanan testified that Dr Maree should have recognised sooner that Ms Sabadina was suffering an anaphylactic reaction and responded accordingly. He also conceded however, that he could not be certain that this would have saved Ms Sabadina. The outcome, he said, was *"(P)ure speculation, it may have made no difference but it might have made a difference*."[17]Dr Mackay said that he should have initiated heart massage to circulate the adrenalin and both say he should have called for assistance sooner than he did. Dr Mackay also said however, "*I think it's likely that there would have been a better outcome but I couldn't say with certainty because I do know that anaphylaxis to suxamethonium is one of the more severe episodes that we meet."*[18]

I accept their evidence. Dr Maree did not act to the highest standards that a specialist anaesthetist would have been expected to achieve but that does not mean that he was criminally negligent or that he caused the death. The prosecution would have to prove that had he achieved this high standard, Ms Sabadina would have lived. Dr Callanan gave evidence that once the reaction commenced, even if a specialist anaesthetist had been in attendance she may well have died. No doubt such expert treatment would have given her a better chance, made it more likely that she might have survived, but in criminal proceedings, that is not sufficient to prove that Dr Maree caused the death. Were Dr Maree charged with Ms Sabadina's death, the Crown would need to prove, beyond reasonable doubt, that his conduct was so grossly negligent as to amount to a crime and that had he taken the extra steps referred to above she would have lived. I do not consider that they could satisfy a properly instructed a jury of these matters.

Accordingly I find that no one should be committed for trail in connection with the death.

[17] transcript day 5 p 93
[18] transcript day 5 p126

Issues of concern

Although I have found that that Dr Maree should not face criminal charges in connection with the death of Ms Sabadina that does no mean I consider he was competent to safely carry out the duties of the position he held. Some of the numerous failings that I have listed above could easily have resulted in the death of a patient. Therefore, unless the systematic deficiencies that allowed for the appointment of a doctor ill-equipped to hold such a responsible position are addressed, deaths in future are foreseeable.

I therefore consider it within the scope of the inquest to examine how Dr Maree came to be appointed Medical Superintendent of the Charters Towers Hospital and what action the relevant authorities took when his deficiencies became apparent.

The recruitment of Dr Maree

The position of Medial Superintendent of the Charters Towers Hospital had been vacant since September 1999. Attempts to recruit an Australian trained and/or registered doctor to the position, which commenced in June 1999, were unsuccessful: indeed no applications were received. So, in May 2000, an international recruitment firm, which had previously acted for Queensland Health, was engaged. This firm nominated Dr Maree as a possible candidate and his contact details and curriculum vitae were supplied. The Queensland Health Area District Manger, Mr Peter Sladden then convened a selection panel consisting of himself, the Acting Medical Superintendent, Dr David Row, and the District Human Resource Manager, Mr Trevor Healy. The panel agreed that Dr Maree might be suitable for the position and he was interviewed by telephone. During the interview Dr Maree was asked (what the court was told were) some fairly simple clinical questions and to expand upon the description of his previous experience. The nature of the position was explained to him. He supplied two written references and Dr Row was commissioned to speak with the referees and report back to the panel.

Mr Sladden and Mr Healey say that at after the telephone interview, the panel discussed Dr Maree and they unanimously concluded that he was suitable for the position, subject to referee checks. Dr Row claims he had reservations about the extent and recency of some of Dr Maree's experience, that he was suspicious of his enthusiasm for management and, what Dr Row considered to be, Dr Maree's over confidence in his clinical abilities. Dr Row checked with one referee who was effusive in his praise for Dr Maree. This, he said made him suspicious of the referee's veracity and caused him to consider that contacting the other referee would be pointless. Dr Row says he continued to have misgivings about recruiting Dr Maree which he expressed to Mr Sladden but he says that he was overridden and his concerns were ignored. When giving evidence at the inquest, Dr Row says Mr Sladden told him that Dr Maree would be appointed despite Dr Row's concerns because Dr Maree was

cheap. Dr Row sought to explain this alleged comment by referring to another plan he was at the time apparently considering. This plan involved offering a permanent appointment to a senior medical officer who had recently been recruited on a temporary, short term contract and allowing Dr Row to continue to act as medical superintendent while the search for a permanent appointment continued. Dr Row believed this would involve paying a lump sum to the recruitment agency that had provided this other doctor and that it was this payment which Mr Sladden was seeking to avoid by insisting on Dr Maree being appointed. Mr Sladden and Mr Healy deny any such conversation took place and deny that the plan conceived by Dr Row would have been more expensive than recruiting Dr Maree. I accept their evidence and I reject Dr Row's claim that he was unduly pressured into agreeing with the appointment of Dr Maree. I think a more accurate account of Dr Row's expressed views at the time of Dr Maree's appointment can be found in his interview with Drs Johnson and Farlow in which he is paraphrased as saying, "*Dr Row acknowledges he provided advice to the District Manager at that point that Dr Maree did appear suitable for appointment. He expressed that he had some reservations at that stage, but that the appointment should proceed."*

Having rejected the allegation that the appointment of Dr Maree was compromised by inappropriate considerations does not mean that I consider that it was made in accordance with the policies that applied at the time. Those policies required the selection panel to weight selection criteria and to then score candidates against them. They required documentation that clearly explained the decision making process in a form that allowed it to be reviewed.[19] None of that happened in this case. The panel asked Dr Maree a few general questions about his knowledge and experience and recorded their deliberations in a page and a half of untidy notes. There was no signed recommendation and no written justification or explanation of the appointment. These shortcomings made it difficult for the inquest to assess whether a merit based selection process had in fact been employed.

The best the court could do in these circumstances was to rely on the opinion of Dr Johnson, a medical executive from Townsville General Hospital, who gave evidence about his investigation of the various allegations made against Dr Maree. Dr Johnson said that based on the curriculum vitae and the references he would have been prepared to employ Dr Maree as a medical superintendent and that subject to the process confirming the experience outlined in the application he would have had no concerns. Dr Farlow also said that had it not been for his experience on the credentialing committee, which has led him to be less accepting of claims made by some overseas applicants, he, too, would have considered Dr Maree a suitable candidate. *"I think their process of interview and referee checks was actually beyond reproach,"*[20] he said. Therefore, although it is easy to validly criticise the

[19] see exhibit 48
[20] transcript day 5 p49

process by which Dr Maree was chosen, the evidence suggests that the decision itself was not unreasonable. That assessment seems inconsistent with the evidence demonstrating that Dr Maree's clinical abilities were seriously inadequate. The resolution of this apparent conflict, in my view, lies in what happened, or did not happen, when Dr Maree came to Australia in August 2000.

The induction/orientation of Dr Maree

After Dr Maree arrived in Queensland, there were three processes that could have identified his shortcomings and provided an opportunity for them to be addressed – all failed.

Because he had secured a position with Queensland Health the Medical Board granted Dr Maree conditional registration. All that it required of him was proof that he had such qualifications as would entitle him to registration and to be satisfied that he complied with the provisions of the *Medical Act 1939*. The Board satisfied itself of these matters by having Dr Maree interviewed by a senior doctor from the Townville Hospital who then wrote to the Board certifying that Dr Maree met these conditions for registration. It seems this process did not involve any assessment of Dr Maree's suitability for the position he was about to fill nor any review of his level of competence.

The next opportunity for protective or remedial action came when Dr Maree attended at the Townville Hospital for a week in early September. In his statement, Mr Sladden says of that event, "*During the first week he attended orientation sessions at the Townsville Hospital..*" [21] However, Dr Callanan says that during this period Dr Maree really just met a few people who he could be expected to have contact with after he took up the position at Charters Towers. He did not even attend the anaesthetics department. Had he done so it would have been a simple matter to ensure that he was familiar with the machines that he would be working with in Charters Towers. If it became apparent that he was so unfamiliar with the equipment that he was unsafe, other more interventionist action could have been taken. None was. It was an opportunity lost.

The next procedure that should have acted to alert his superiors to Dr Maree's limitations was the privileging and credentialing system. The purpose of the credentials and clinical privileges process is said to be to ensure "*that only those practitioners who are appropriately qualified, trained and experienced undertake clinical care*"[22] in Queensland Health facilities. The process involves peer review by a committee of clinicians which assesses the doctor's credentials and makes decisions about what procedures he/she will be privileged to undertake.

[21] exhibit 18 para 8
[22] exhibit 39 p5

When he took up the position at Charters Towers, Dr Maree was told that he would need to make application to have his credentials recognised and his privileges delineated but it never happened. In the meantime he operated on what have been referred to as "*implied privileges*" that accrued on account of his position. That may have been acceptable had Dr Maree been a junior doctor working under the close supervision of a more experienced practitioner. It was obviously problematic when he was the "boss" of the hospital and expected to give clinical leadership to the other two doctors employed there.

After being reminded of the need to do so, Dr Maree made application to the Privileges Committee on 8 December. He was suspended two days after Ms Sabadina's death and did not return to work before he resigned in April 2001. The process was therefore never completed.

It is apparent from this brief description of the application of these policies and practises to Dr Maree's case that they were totally inadequate to ensure the competence of someone who was placed unsupervised in a highly responsible position. It is ironic that the most telling condemnation of those processes came from Dr Maree himself when he wrote to the Queensland Health Northern Zone Manager in response to an invitation to show cause why disciplinary actions shouldn't be taken against him. He said:-

> *The selection panel acted incompetently and Dr Row's behaviour is again shown to be questionable. I did not qualify for the position and should not have been granted clinical privileges. The orientation process I went through was very superficial and inadequate. Lastly it is the responsibility of Queensland Health to ensure appropriate candidates are placed in positions*.[23]

Having reviewed all of the evidence it is difficult to disagree with his assessment.

The response to Dr Maree's apparent shortcomings and the death of Ms Sabadina

Dr Row returned from leave to Charters Towers on the day of Ms Sabadina's death. He had already composed a letter to Mr Sladden detailing numerous concerns he had about Dr Maree's practice. That letter is dated 17 December 2000. It makes reference to Ms Sabadina's death in a handwritten post script. The day after Ms Sabadina's death, Dr Row also wrote the Medical Board advising them of the death and requesting the Board review Dr Maree's registration. On 19 December 2000, the Board communicated with Queensland Health and was advised that Dr Row's numerous allegations were under investigation and that Dr Maree was to be suspended from practice.

[23] Dr Maree's response Mr Mehan to Johnson and Barlow report at p53

As has been mentioned earlier, over the next two months, Drs Johnson and Farlow undertook a comprehensive investigation. Their report recommended disciplinary action be taken by Queensland Health and that the report be referred to the Medical Board.

On 23 February 2001 the Board was given a copy of the report. On 22 March the Board wrote to Dr Maree calling on him to show cause why his registration should not be suspended or his right to practice made subject to conditions. On 24 March he provided the Board with a copy of his response to the Johnson Barlow investigation report. On 27 March Dr Maree wrote to the Board advising of his intention to resign from Queensland Health and his intention not to practice medicine again in Australia.

On 6 April Dr Maree tendered his resignation effective from 17 April. This was conveyed to the Medical Board. On 27 November 2001 the Medical Board resolved to discontinue its investigation of Dr Maree's suitability for registration as he had resigned his position with Queensland Health which employment was a condition of his registration. The Board therefore made no finding in relation to the allegations against Dr Maree. The Board says it wrote to its equivalents in the other Australian states and New Zealand advising that Dr Maree was no longer registered to practice in Queensland. Dr Cohn, the current chair of the Board, told the inquest that the decision not to advise the home country of the doctor involved of the concerns about him was consistent with the Board's practice at the time but that now such advice would be given to any country in which it was thought the doctor in question might seek to practice.

When questioned at the inquest as to why the Board did not make a finding in relation to the allegations against Dr Maree, Dr Cohn, said that the decision was based on Dr Maree having left the country and was influenced by the fact that it had a large number of investigations to deal with at the time. She also said that the Board was waiting for other inquiries such as this inquest to be completed before taking action, to avoid parallel inquiries occurring.

In a submission by the solicitors for the Board, it was argued that no good purpose would have been served by the Board taking further action in this case as the most the Board could have done was to de-register Dr Maree and that had already happened as a result of his resignation. Further, they suggest that no disciplinary prosecution in the Health Practitioners Tribunal would have been likely to succeed in the absence of evidence of criminal negligence and as I have found such evidence is not available in connection with the death of Ms Sabandina, a disciplinary charge based on allegations of poor practice standards would not have succeeded. I shall respond to these submissions shortly.

Recommendations

Pursuant to s43(5) of the Act I am authorised to make riders or recommendations designed to reduce the occurrence of similar deaths to the one investigated by this inquest. In accordance with that power I make the following observation and recommendations.

The assessment of overseas trained doctors and the special needs of rural medicine.

This inquest focused solely on the cause and circumstances of the sad death of Kathryn Sabadina. However, it was apparent from the material admitted into evidence that in the three and a half months Dr Maree practiced in Charters Towers this fatal event was far from his only problem of a clinical nature. While I have no jurisdiction to look into those other allegations, I received sufficient information about them from reliable sources that had properly investigated those matters to enable me to conclude that the processes by which Dr Maree was selected, registered to practice and assessed as suitable for the position of Medical Superintendent were flawed.

I heard compelling evidence concering the challenges facing a senior rural practitioner and the difficulties Queensland Health faces when trying to recruit doctors sufficiently competent to attend to these very wide ranging and demanding roles: experience in anaesthetics, obstetrics and general surgery is not something one would normally expect of a general practitioner. I was told that the relevant colleges are considering the creation of a discrete specialty of rural medicine. It is hoped that if this reform proceeds, general practitioners who currently need to leave the bush to train in a specialty at a metropolitan teaching hospital never to return, might be convinced that there is a satisfying career path for them in regional hospitals. It was also suggested that clinical networks of the various specialties could assist in raising the standards of those who need to practice across the specialties and could effectively contribute to an increase in the standard of care in regional hospitals. At least one well qualified witness suggested that until these reforms are in place, greater restrictions should be placed on the type of procedures undertaken in regional hospitals when emergencies are not involved.

I also received evidence that many of those systems and processes for assessing and credentialing practitioners have been reformed and that under current arrangements, the deficiencies in Dr Maree's abilities would be identified and responded to were he to be recruited to a similar position today.

I have considered whether I should make recommendations concerning these issues, to re-enforce the improvements that have been undertaken and to give greater impetus to those still gestating. I have concluded that having regard to the attention being given to these issues by the Commission of Inquiry into the Bundaberg Base Hospital and the review of Queensland

Health systems being undertaken by Mr Peter Forster it would be inappropriate for me to seek to address such wide ranging issues on the basis of this one case that occurred five years ago. The issues are so important and complex that it is appropriate that the widest possible evidence base be considered when seeking to address them.

The investigation of medical adverse events leading to death.

I have earlier expressed my concern about the delay in finalising the investigation of this matter. It is unacceptable that a family in the position of Ms Sabadina's should have to wait nearly five years to gain a detailed understanding of her death.

Most coronial investigations are undertaken by police who do an excellent job. Police officers have expertise in investigating suicides, motor vehicle accidents and many other matters that frequently come before a coroner. When deaths occur in more unusual settings that might require a more esoteric understanding of that setting, specialised investigative bodies undertake the investigation and report to the coroner. For example, inspectors from the Department of Natural Resources and Mines undertake the investigation of mining deaths and officers from Maritime Safety Queensland investigate boating accidents. Aircraft accidents are investigated by officers from the Australian Transport Safety Bureau.

There is no doubt that the investigation of deaths that occur in a medical setting are particularly complex and challenging, yet there is no specialist body that regularly investigates such matters. These investigations are left to police officers who have to struggle with two main problems. First, they have little or no expertise in the issues that need to be examined and so even identifying the appropriate people to be interviewed and then deciding what to ask them can be difficult. Second, hospitals frequently fail to co-operate with police investigations. From across the state I continue to receive complaints from police and local coroners that doctors and nurses will not provide statements despite repeated requests. Hospital administrators seem unable or unwilling to help address the problem.

In the past, the medical profession was very reluctant to discuss with patients or their families the unexpected negative outcomes of medical procedures for fear of litigation. That reluctance has diminished as medical institutions have recognised their ethical obligation to share information about these incidents with those most affected and realised that full disclosure is more likely to reduce litigation rather than contribute to more and/or bigger civil damages claims.

Most, but not all, hospitals have mortality and morbidity committees that examine adverse events that lead to death or an unexpectedly poor outcome. The processes by which these committees operate and the extent to which

they disseminate their findings is varied but they demonstrate that clinicians realise that they are best placed to unpack these troubling events.

In my view similar expertise needs to be made available to coroners so that the families of patients who die can be properly informed about the death, the public can be assured that these death investigations are reviewed by an expert tribunal independent of the institution in which the death occurred, and the results of the investigation can be appropriately disseminated so that preventive strategies highlighted by the death become more widely known. The report of Drs Johnson and Farlow that considered the circumstances of Ms Sabadina's death is an example of what should be undertaken in all cases in my view.

Recommendation 1.
I therefore recommend that the Chief Health Officer with the assistance of the State Coroner develop a policy and process for the independent and expert investigation of all deaths that, to use the word of the Coroners Act 2003, are "not reasonably expected to be an outcome of a health care procedure." *Such reports should be made available to the coroner and the family of the patient as soon as possible.*

The finalisation of the complaints against Dr Maree

As outlined above, Queensland Health provided the Medical Board with a detailed report on the allegations that Drs Johnson and Farlow had investigated but when Dr Maree resigned, for the reasons also summarised above, the Board decided to take no further action in relation to them. In my view that was an inappropriate response to the serious allegations contained in the report. The functions of a coronial inquiry are not coterminous with the Board's responsibly to uphold the standards of practice within the health professions and to maintain public confidence.[24] For example, in this case there were 11 allegations of professional misconduct raised against Dr Maree and only one of those was the subject of this inquest. Nor is it appropriate for the Board to postpone taking action until other authorities that may consider some aspects of a practitioner's performance have done so. In my view, the Board should act as quickly as possible to determine matters within its special area of responsibility. It is primarily responsible for the maintenance of public confidence and standards within the profession in Queensland and it is inappropriate for it to forbear from doing its duty in this regard merely because some other body may take some action or the practitioner whose conduct is in question leaves the State.

Recommendation 2
I recommend that the Medial Board of Queensland consider and determine the allegations made against Dr Maree and investigated by Drs Johnson and Farlow. Its findings in relation to those matters should be published in a form

[24] Health Practitioners (Professional Standards) Act 1999 s377

that makes them readily accessible to those who might want to be informed of Dr Maree's past performance.

Tryptase test

As mentioned earlier in these reasons, a test is available which enables a diagnosis in many cases of whether an anaphylactic reaction has occurred. The test requires that blood be taken within four hours of death. The benefits of these tests are that they enable investigators to quickly identify the likely cause of death if an adverse reaction is involved or exclude that possibility, thus freeing them to focus on other possibilities sooner. The time taken to analyse that issue in this case because the results of such a test were not available demonstrates the possible benefits

For some time I have been working with an expert group to formulate for police and medical practitioners guidelines that will assist those involved in the initial gathering of evidence, when a death occurs in a medical setting, determine what equipment, drugs, machines etc should be secured and tested. I intend adding to those guidelines advice concerning mast cell tryptase testing. It is appropriate that police and Queensland Health also make reference to this in their policies and procedures.

Recommendation 3
I recommend that Queensland Health and the Queensland Police Service amend their policies and procedures governing the immediate response to deaths in a medical setting to reflect the need to urgently take blood samples if the death may be due to ananaphylaxis. A suggested form of that amendment is:-

Take blood samples when adverse reaction to anaesthetics or drugs may be involved

Deaths that may be due to an anaphylactic reaction or other form of hypersensitivity to a drug, anaesthetics or any other agent must be reported to a coroner. In such cases, blood taken from the body within 4 hrs of death may shed light on the cause of death by being tested for mast cell tryptase levels. Police should therefore immediately contact the local coroner (and if that can't be done the state coroner) to obtain consent for this to happen. The blood should then be stored in clean glass vials and refrigerated immediately. The form 1 should note the location of these samples.

This inquest is now closed.

Michael Barnes
State Coroner
24 August 2005