CORONERS ACT, 1975 AS AMENDED

SOUTH *AUSTRALIA*

FINDING OF INQUEST

An Inquest taken on behalf of our Sovereign Lady the Queen at Adelaide in the State of South Australia, on the 18th, 19th and 20th days of September 2002 and the 17th day of March 2003, before Anthony Ernest Schapel, a Coroner for the said State, concerning the death of Orazio DeIonno.

I, the said Coroner, find that, Orazio DeIonno aged 40 years, late of 18 Edmund Avenue, Paradise, South Australia died at the Royal Adelaide Hospital, Adelaide, South Australia on the 5th day of September 2000 as a result of ischaemic heart disease due to coronary atherosclerosis.

1. Introduction

1.1. Some time during the evening of 4 September 2000 Mr Orazio DeIonno aged 40 years (the deceased), who lived alone at premises in Paradise, telephoned his cousin Mr Antonio Graziano and told him that he was suffering from chest pain. He asked him whether he would drive him to hospital. As a result of this conversation, Mr Graziano drove to the deceased's home, collected him and drove him to the Emergency Department of the Modbury Hospital (the Hospital).

1.2. According to Hospital records, the deceased was triaged at or about 9:14pm. Triage is the process by which patients are accorded priority of treatment in an Emergency Department. It takes into account the nature of the complaint and the degree of urgency required in the provision of medical treatment. There is a national triage scale of 1 to 5. Category 1 refers to very urgent cases, usually involving arrival by ambulance. A category 1 patient is seen immediately notwithstanding the fact that other patients have been waiting longer. Category 2 refers to cases of an urgent nature where the patient should be seen by a medical practitioner within 10 minutes.

Category 2 patients are accorded priority over category 3 patients. Category 3 signifies less urgency than category 2. A category 3 patient should be seen within half an hour. Category 3 patients have priority over category 4 and 5 patients. Category 4 patients should be seen within an hour. I do not need to deal with Category 5 patients.

1.3. As observed, category 2 and 3 patients should, according to the scale, be seen within 10 minutes or 30 minutes respectively. However, whether they can actually be seen in those times depends on a number of factors, such as the time of the day or night, how busy the Emergency Department is, bed availability, staff and so on. The evidence before me suggested that category 2 patients presenting with chest pain were seen within the stipulated time. However, for category 3 patients, the evidence suggests that the stipulated time requirement is frequently more honoured in its breach than its observance.

1.4. At the time with which this inquest is concerned, the Hospital had in existence a procedure entitled 'Priority 2 – Chest Pain Procedure' (Exhibit C10a). According to this procedure, a nurse whose task it was to categorise patients depending upon the nature of the patient's complaint (the triage nurse), had a discretion to categorise a patient who presented with chest pain as category 2 'if appropriate', depending on whether the triage nurse considered the patient to be possibly suffering from a heart related illness. For instance, if a triage nurse considered it a possibility that the chest pain was due to cardiac ischaemia, that is a lack of blood flow to the heart muscle, the patient would be accorded category 2. In those circumstances, steps were taken to ensure prompt medical evaluation and treatment. This would include an almost immediate electrocardiogram (ECG) which can detect irregularities in the heart's function. It can possibly detect signs of cardiac ischaemia or an acute myocardial infarction (heart attack). If a cardiac illness was not suspected, where for example it was considered that the patient was suffering from a musculo-skeletal complaint, the patient was accorded a lower category of priority. In that event, if the patient was accorded category 3 the patient was asked to wait, in an ideal world, no longer than 30 minutes before treatment by a medical practitioner was delivered. If the patient was accorded category 4, ideally the patient would have to wait no longer than an hour.

1.5. When the deceased presented at the Hospital, he made a complaint of chest pain to the triage nurse and was assigned a triage category of 3. This meant that after certain

paperwork was attended to, he was asked to wait in the waiting area with Mr Graziano. At the time the deceased presented, he was undoubtedly suffering at the very least from cardiac ischaemia. There is no suggestion that the deceased had any prior history of heart disease. He was 40 years of age. There is also a dispute on the evidence as to whether or not the deceased properly described his symptoms to nursing staff and a dispute as to whether he was asked the right questions as to his symptomatology. I deal with this issue later, but it is plain that the deceased was placed in the less urgent category 3.

1.6. The deceased, as I say, was triaged at or about 9:14pm. This time is taken from a document called an MR5 which is raised at or about the time of triage and administrative processing. He had arrived at the Hospital only a few minutes before. According to Hospital records, the deceased and Mr Graziano waited until 9:48pm, that is 34 minutes after triage. They then left. They were tired of waiting. The deceased's category 3 triage priority implied that he should have been seen by a doctor at about the time that he left. He was not seen by a doctor, and it is plain that the deceased would have been required to wait longer.

1.7. At the time the deceased left the Hospital, it seems that his pain had abated somewhat. He looked better. However, the reality of the situation was that he was a sick man. Mr Graziano drove him home.

1.8. Later that night, the deceased drove himself to the Royal Adelaide Hospital. He entered the Emergency Department of that hospital shortly before midnight. When walking into the waiting room he collapsed from a heart attack and in spite of all appropriate efforts to resuscitate him, he unfortunately died.

1.9. A post-mortem examination revealed that the cause of the deceased's death was ischaemic heart disease due to coronary artherosclerosis. I find that to be the cause of death.

1.10. This inquest examined a number of issues. I investigated whether the deceased gave sufficient information to the Hospital nursing staff to enable them to properly assess the nature of his complaint. I also enquired as to whether sufficient information was sought by nursing staff for them to make any such proper assessment and whether in the circumstances his triage category 3 had been appropriate. I also examined the circumstances in which the deceased left the Hospital and whether in reality the

deceased would have been seen by a doctor within a reasonable time if he had stayed. I also heard evidence concerning modifications to the Hospital's chest pain procedures which have been designed to minimise the risk of an inappropriate triage assessment being accorded to a patient complaining of chest pain.

2. <u>The deceased's presentation at the Emergency Department of the Hospital and Triage</u>

2.1. The category 3 status that the deceased was assigned meant that according to the triage code, he should have been seen ideally before 9:44pm. He left at 9:48pm according to Hospital records. It was universally stated by the Hospital staff from whom I took evidence that this was a very busy evening in the Hospital Emergency Department. There are two objective illustrations of this. Firstly, the Triage Registrar covering the 24 hour period from 12am on 4 September to 12am on 5 September (Exhibit C9b) reveals that 126 patients were triaged, 4 of whom did not wait for medical attention. Dr Evan Markwick, who is the Director of the Emergency Department and was the Acting Director prior to that, told me that at the time with which this inquest was concerned, the average number of patients triaged was 106 per day. As well, the workload was affected that evening by an ambulance presentation which is accorded immediate priority. All of this of course is consistent with a busy period. Secondly, as it happens, the Triage Registrar reveals that at 9:02pm, 12 minutes prior to the deceased's presentation, another patient complaining of chest pain and a cough was accorded triage category 3. This patient is recorded as not having waited. She is recorded as having left at 11pm. The inference from this entry is that the patient left having waited for 2 hours without receiving medical attention in spite of the fact that her category 3 status implied that she should have been seen within half an hour. The other inference available is that at 11pm, the Emergency Department was still very busy (T86).

2.2. Nurse Hernandez told me that her assessment was that the waiting time for patients that night was as much as 4 hours and that it was possible that the deceased, had he waited, would have had to wait that long. Nurse Amanda Carter in her interview with the police (Exhibit C7a) also said that there was a 4 hour wait that night. However, it has to be acknowledged that this may have been the waiting time for category 4 and 5 patients.

2.3. All of the above leads me to conclude that there was no reasonable expectation on the part of the nursing staff that evening, in particular on the part of the triage nurse Ms Hernandez, that the deceased would be seen in anything like 30 minutes in accordance with his category 3 status. To this extent, his being accorded that triage status was somewhat of a fiction. What it meant in reality was that had he stayed, he would simply have been accorded priority over category 4 and 5 patients. However, I acknowledge that had his condition become critical, his triage status could have been upgraded. He thereby could have been re-prioritised and received timely treatment. However, he did not wait and the point is that in the circumstances, the deceased would not have been inspired with confidence that he would be seen quickly. His decision to leave after waiting only 34 minutes or thereabouts has to be looked at against that background.

2.4. In this inquest I examined whether in all of the circumstances, the deceased was triaged correctly and whether on the information that was imparted to nursing staff he should have been triaged as category 2, meaning that he would have had an almost immediate ECG and then medical treatment in accordance with the Hospital's Priority 2 – Chest Pain Procedure.

3. The triage assessment

3.1. The triage nurse on duty at the Hospital at the relevant time was Ms Daisy Hernandez. She gave evidence at the inquest. She told me that when the deceased presented at the triage desk he was alone. She maintained that she had no recollection of the deceased being with another person at any time. The evidence is clear, however, that the deceased's cousin was present when the deceased was triaged. Mr Graziano told me that the deceased was seen by a nurse who spoke with an accent and to him, at least, was of Asian appearance. Nurse Hernandez spoke with an accent during the testimony and although she is not of Asian extraction, her appearance may have given Mr Graziano reason to think she was.

3.2. There can be little doubt that Mr Graziano in referring to conversation that took place between the deceased, himself and a nurse at that stage was referring to Nurse Hernandez. I mention this because there is an area of dispute concerning the description of the deceased's symptomatology as described by Nurse Hernandez on the one hand and the deceased on the other. Another nurse, a Ms Annette O'Neill, who gave evidence at the inquest, was also involved in the matter at various stages.

3.3. Nurse Hernandez told me that the deceased complained of chest pain and that she established through him that he had been experiencing coughing that day and the day before. She maintained that he had not coughed in her presence. She asked him to take a deep breath and asked him whether the pain worsened in response. The deceased confirmed that it did. She asked that question with the competing possibilities of a cardiac condition or musculo-skeletal pain in mind.

3.4. Nurse Hernandez told me that she specifically recalled asking the deceased whether the chest pain went to any other part of his body and specifically mentioned the jaw, the shoulder and the arm. She asked that question because radiated pain of that nature is possibly symptomatic of cardiac pain. It is a specific sign to which the nurses must be alert to assess whether the pain might be cardiac in origin. She said that he said no to that question. She established that the chest pain had been with him just for that day. She also told me that she had asked him whether he had experienced breathing difficulties to which he had said no. Difficulty in breathing is another possible sign of a cardiac problem. However, she asked him whether the pain worsened either when he took a deep breath or when he twisted and he said yes to both. She had the possibility of a musculo-skeletal complaint in mind when she asked those questions. In order to confirm that he was receiving enough oxygen, Nurse Hernandez administered an oxygen saturation test. This is a simple procedure which is administered by attaching a peg like object to the end of the finger. The result was normal. She told me that the deceased denied any sweating, the existence of which may also have been consistent with a cardiac problem. Similarly, he denied other possible cardiac signs such as nausea or vomiting.

3.5. Nurse Hernandez stated that the deceased did not look pale and his movement was not restricted. Surprisingly, Nurse Hernandez did not come to a view about the deceased's age, but seemed to suggest at T30 that her impression was that he was apparently a younger man and that this had some influence in her assessment that the chest pain was not cardiac in nature. As observed, the deceased was 40 years of age, an age that placed him statistically at higher risk of heart attack to that of a younger man. To be fair, however, the deceased's date of birth was on his MR5, a document Nurse Hernandez sighted. It may well be that she therefore did take his age on board. Nurse Hernandez on her own admission did not ask the deceased whether there was any family history of heart problems, another relevant matter. She said that this issue is normally explored with a patient complaining of chest pain. Her omission to

explore this issue, therefore, also surprised me, although it has to be said that I have no evidence before me that suggests any family history of ischaemic heart disease.

3.6. Nurse Hernandez said in effect that if the deceased bore the signs I have described, especially radiating pain, the existence of which the deceased had denied, she would have assigned the deceased a category 2 triage priority which would have meant that he would have been given an ECG immediately and then been seen by a doctor without much further ado.

3.7. Nurse Hernandez's understanding of the Priority 2 – Chest Pain Procedure was that there was a discretion residing in the triage nurse to accord that category or a lower category depending on the circumstances. The general expectation was that a patient presenting with chest pain would be accorded category 2 but that if they presented with no prior history and their symptoms were not indicative of a cardiac problem, a lower triage category could be accorded. On that basis, Nurse Hernandez accorded the deceased category 3 as she did not think the deceased's complaint was cardiac in origin. She thought it might be either musculo-skeletal or pleuritic in origin. She told me that she spoke to another nurse about the matter, Nurse Carter who was the team leader. She described the deceased's symptoms to Nurse Carter who agreed that category 3 would be appropriate. She also said that Nurse Carter had at one point observed the deceased in the waiting area and had said words to the effect that he could wait as he did not appear to be in discomfort. I received in evidence a record of interview verified by affidavit from Amanda Jane Carter, a senior registered nurse at the Hospital (Exhibit C7 and C7a). Nurse Carter states that she has no recollection of Nurse Hernandez mentioning the deceased's presentation to her and has no recollection of the deceased at all. She was interviewed by the police about the matter in October 2001, over a year after the events in question.

3.8. Nurse Hernandez summed up the basis of her decision to accord category 3 by saying:

> '… What made me think to give the priority 3 is that he could probably wait a little bit longer to be seen by the doctor … The only thing I was thinking is that give a priority 3, this means the person can wait a little bit longer to be seen by the doctor. That's supposed to be 30 minutes.' (T50)

She told me that she did not give any time estimate to the deceased as to how long he would have to wait. She says that he did not ask. She simply told him that he had high priority, without telling him that his priority meant that he would normally have to wait half an hour.

4. Events following triage

4.1. Within 5 or 10 minutes after first dealing with the deceased, Nurse Hernandez told me that the deceased approached her and said, 'you look so busy I'm leaving' (T38). She says he was alone at that time. She questioned him about the pain in his chest to which he replied that he had a little. She re-checked his oxygen saturation level and it was normal. She told the deceased about his high priority, that he would not have to wait too long to see a doctor and that he ought to wait for the doctor to assess him. No mention was made of a waiting time in terms of numbers. She said that she told the deceased that he would need an ECG to be performed as well as an x-ray and blood examination. She said that the deceased agreed to wait a little longer.

4.2. In circumstances which are not entirely crystal clear, another nurse, Annette O'Neill became involved in the matter. Her involvement may have commenced at or around the time Nurse Hernandez took a break. Nurse O'Neill relieved her as triage nurse. There is some variation between the two nurses as to the precise sequence of events, but it is evident that the deceased again approached the triage desk and said that he was feeling better and was leaving. There were still a lot of waiting patients, according to Nurse Hernandez. Whatever the precise sequence of events were, it is the case that Nurses Hernandez and O'Neill were at one stage speaking together about the deceased's case. They were in possession of the deceased's triage form, the MR5, on which Nurse Hernandez had originally written 'chest pain' as the deceased's presenting complaint. Nurse O'Neill added the letters 'MSK' to that, meaning musculo-skeletal. Nurse Hernandez had explained her line of thinking to Nurse O'Neill and Nurse O'Neill had taken the view that if anyone presenting with chest pain was given a priority of less than 2, there was a need to be more specific about the reasons for that. Nurse O'Neill's version of events was that the deceased or his companion approached her position on two occasions. On the first, she was asked how much longer the deceased would have to wait to which she replied that she could not give them a time as to how long it would take for him to be seen by a doctor. It was still very busy in the Department. Nurse O'Neill told me that they had patients

waiting in the corridors and no free cubicles. Non urgent cases were taking four hours plus, although category 3 was less. Unlike Nurse Hernandez who conceded that the deceased could have waited as much as four hours, Nurse O'Neill said that the wait would nevertheless have been certainly longer than half an hour for priority 3 that evening (T71). She suggested that 'a wait probably well over an hour' would have been average for priority 3.

4.3. About 5 or 10 minutes after the first approach, the deceased and his companion again approached. What happened on this occasion according to Nurse O'Neill was as follows:

> 'I asked him to go through with me again the nature of his pain, its location, what it felt like, what, if anything, had been making it worse or better before I could in any good conscience let him leave the department.' (T71-72)

Nurse O'Neill said that she specifically asked the deceased the following:

> 'Well, I asked where the pain was in his chest. I asked him what his pain felt like, whether it radiated anywhere, whether it was worse on movement, coughing, on deep inspiration, whether - I basically asked him all the questions I would ask anyone presenting with chest pain to attempt to distinguish it between it being heart pain or any other sort of pain.' (T72)

His responses are encapsulated in the following passage of Nurse O'Neill's evidence:

> 'A. He indicated his left lower rib area as to be the location of the pain. He was describing it as sharp, that it was worse when he moved and when he tried to take a breath or coughed. He gave me the impression that he had had the pain all day and that a cough that he'd had all day with this pain had made it worse. The reason why he decided he wanted to leave was that his cough had settled which seemed to have allowed his pain to settle so that he was actually pain free at the time when he came to the triage desk to say that he didn't wish to wait.
> Q. Did you specifically ask Mr DeIonno at that time whether he had any pain in his arms.
> A. No.
> Q. Did you ask him whether the pain seemed to be radiating to another part of his body other than his chest.
> A. Yes, I did ask him whether the pain went anywhere else.
> Q. What was his response to that.
> A. He indicated to me that the pain was localised in the one area.' (T72-73)

Nurse O'Neill said that she also asked the deceased whether any recent physical activity could account for the pain and believes that the deceased told her that he had been lifting heavy objects that morning at work. The impression she was given was

that the pain had only existed since that morning and that the combination of the lifting and the coughing seemed to be the cause of his pain. She told me that the deceased's companion did not contradict any of the deceased's answers, although he had at times contributed to the conversation. She said that she could recollect the companion asking about the cough to which she had replied that coughing in the course of lifting could cause a muscle spasm. Nurse O'Neill told me that at that point the deceased seemed fit and well and that there was nothing in his physical appearance that would have concerned her as far as his heart was concerned (T75).

4.4. After telling the deceased to come back if his pain returned he and his companion left, notwithstanding that Nurse O'Neill had told the deceased that she would prefer him to stay. The deceased said he would return if his pain came back again.

4.5. Like Nurse Hernandez, Nurse O'Neill denied any suggestion that she gave the deceased a time estimate in numerical terms as to how long he might have to wait.

4.6. Nurse O'Neill endorsed the triage form to the effect that the deceased did not wait. She wrote 'feels better, will return if further problems'. The time he left is recorded as 2148 hours both on the triage form (MR5) and the Triage Register.

4.7. There were some discrepancies between the evidence of Nurse Hernandez and Nurse O'Neill. As observed Nurse O'Neill said that she had also been told by the deceased about his having lifted heavy objects at work in the morning and that the combination of the lifting and the coughing seemed to be the cause of his pain. Nurse Hernandez said that she did not hear anything said by the deceased about lifting heavy objects earlier that day. Nurse Hernandez said little or nothing about the detail of the enquiries that Nurse O'Neill said she personally made of the deceased.

4.8. It may well be that Nurse Hernandez was not present during the entire conversation that Nurse O'Neill had with the deceased. Nurse O'Neill was under the impression that Nurse Hernandez returned from her break towards the tail end of the conversation, just prior to the deceased leaving. This may well be correct. It is odd, however, that on one version of events the deceased described his coughing as having existed since the previous day and on another, give the impression that his symptoms had only arisen since a lifting episode earlier that morning, especially when his companion, Mr Graziano, who was obviously concerned about his cousin's welfare,

and who was contributing to the conversation, failed to query anything inconsistent the deceased may have said. This brings me to Mr Graziano's version of events.

5. Mr Graziano's version of events

5.1. Mr Graziano's version of events bore differences from those of Nurses Hernandez and O'Neill. He has said:

a) the deceased was actually coughing at his presentation at the Hospital (T102);

b) he did not hear the nurse ask the deceased to take a deep breath (T102);

c) the nurse did not ask the deceased to twist his body (T102);

d) he did not hear the nurse ask the deceased anything as to whether he was taking anything to relieve his pain (T102);

e) the nurse did not ask the deceased whether he was on medication for anything (T104);

f) the nurse did not ask the deceased whether the chest pain radiated anywhere, in particular he could not recall the nurse asking whether the deceased had pain in his jaw, shoulder or back (T104);

g) that the deceased did mention pains in his arms at the Hospital (T120);

h) the nurse did not ask whether the deceased had been experiencing any difficulty breathing (T105);

i) the nurse did not ask whether the deceased had been sweating (T105);

j) the nurse did not ask whether the deceased had nausea or vomiting (T105);

k) that they were told by a nurse that it could be hours before the deceased was to see a doctor (T107);

l) he could not remember the deceased saying to a nurse that his pain had started after he had been lifting heavy objects earlier that day (T110);

m) that the nursing staff gave the deceased no encouragement to wait (T111);

n) that there was no mention by the nursing staff of the necessity to perform an ECG or blood tests (T111);

o) that none of the nurses said anything to the deceased or Mr Graziano about the possible cause of his pain (T112), although in the context of discussion about his

cough, he thought that there was something said about it possibly being flu-related (T118).

5.2. Mr Graziano had earlier collected the deceased from his home. Mr Graziano's observations of the deceased are pertinent. He described the deceased as sounding stressed over the telephone and when he actually saw him, 'he was curled up and he was very white in the face' (T96). Mr Graziano said he was curled up in pain. The deceased told him that he had pain in his chest and his arms. This was said both on the telephone and in the car on the way to the Hospital. The description of pain in the arms was of significance to Mr Graziano at the time as it signified in his mind the possibility of a heart attack. He told me that notwithstanding this perceived connection, he did not raise with the deceased the possibility that he was having a heart attack because he thought reassurance was a more appropriate stance to adopt and he thought it was better to distract him from the pain. The deceased did tell him, however, that he had been experiencing the pain for about a week and a half and he specifically remembered this because the deceased had told him that he had experienced the pain in the evenings. As Mr Graziano and the deceased were work colleagues, it had occurred to Mr Graziano that he had not noticed anything unusual about the deceased during the day time. Specifically, Mr Graziano rejected the notion that the deceased had experienced, or said to Hospital staff that he had experienced, pain earlier that day as a result of lifting things at work. Such a scenario surprised Mr Graziano as lifting was not part of the deceased's job description and being in an administrative position at their place of work, Mr Graziano would have been immediately enlivened to workcover implications if there had been any suggestion of a work related injury. Mr Graziano was particularly convincing in relation to this issue.

5.3. On the basis of all of that, it would seem unlikely that the deceased would refrain from mentioning to the Hospital nursing staff the pain to his arms or arm. Even less likely would be the denial of such a symptom when asked, especially if he was in the company of a person to whom he had only minutes before told a different story. It is also unlikely for similar reasons that the deceased might, obliquely or otherwise, ascribe his pain to a work related incident that day when he had very recently told Mr Graziano of a history of pain a week and a half in duration.

5.4. Mr Graziano's description of what occurred at the triage counter is also worth examining. He describes a somewhat peremptory affair. He said he could not recall 'any real questions' (T104). All he could remember was that the deceased was asked to fill in forms and go to another Department. As far as triage was concerned he said:

> '… all I know was we were not at the counter very long. If it was any more than a minute I'd be very surprised.' (T104)

To use his words:

> 'It was just a short, sweet encounter at the counter.' (T105)

5.5. Nevertheless, Mr Graziano did say that by the time the deceased completed the paperwork very shortly after he had arrived, the deceased's pain was apparently not as great as it had been when he had picked him up. He was able to extract his Medicare card and fill in the forms himself.

5.6. Mr Graziano's impressions as to time, and what may have been said about time by nursing staff, also has to be scrutinised. Firstly, he recalls that the deceased mentioned that he had been to this particular Emergency Department before and had said that:

> 'It would be nothing to wait until one or two o'clock in the morning to see somebody, see a doctor.' (T106)

In addition, after waiting for some time, a nurse told them that it could be hours before they were seen. An enquiry made just before they left was met with a response in these terms:

> '"We don't know it all depends - what's in priority or whatever, what happens between now and when it's your turn, when your number's up", or when the doctors are free or when they come back on duty.' (T127)

and

> 'There was no indication of time. They did not know. They said "It could be in five minutes, it could be early hours of the morning". They had no idea whatsoever.' (T127)

In the event, I am satisfied that they waited just over half an hour. The brevity of this period caused Mr Graziano genuine surprise in the witness box. He said that he had received the call from the deceased at about 8:30pm and did not get home after dropping the deceased off until after 11pm. He thought that they had waited for significantly longer than just over half an hour at the Hospital as he could not account

for the whole of the two and a half hours the deceased was in his company.. In my opinion, Mr Graziano's impression as to how long they waited before leaving the Hospital is incorrect. Another erroneous impression gained by Mr Graziano was that the Emergency Department was not particularly busy, when in reality it must have been on the evidence I have already described. Nevertheless, Mr Graziano's evidence as to what had been said by the nurses about how long they might have to wait has a ring of truth to it when it is considered that the Department was very busy and that on their evidence, there would have been a significant waiting time of possibly several hours duration.

5.7. As to the decision not to wait, Mr Graziano told me that the deceased was getting frustrated just sitting around. He said that he was given no encouragement to stay. As well, he said:

> 'But they didn't say anything out of the - you know, they didn't say, "If you wait another ten minutes you will see a doctor" - well, then, I would have made Ross wait. Because there was no indication of what time or how long it was going to be – the wait - well, it was a no win situation; I mean, we could have been there until 4 o'clock in the morning.' (T125)

Mr Graziano conceded that the nursing staff may have advised the deceased that if the pain returned, he should return to the Hospital.

5.8. Mr Graziano confirmed that the deceased's condition improved such that by the time he dropped him at his home, he was a lot better and was standing up straight. The deceased said he would see his local doctor in the morning and Mr Graziano told him to give him a call if he was not feeling well overnight. Mr Graziano received no further call from the deceased that night. The deceased took himself to the Royal Adelaide Hospital and Mr Graziano was informed of that fact, and of the deceased's death, in the early hours of the following morning.

5.9. There can be little doubt in my view that if the deceased had described the symptomatology that Mr Graziano said he was experiencing, namely chest pain and radiating arm pain lasting a week and a half, the deceased would have been triaged as category 2. That he possibly should have been accorded that priority in any event is another issue I will deal with in due course, but I have to consider whether there is any possible resolution of the conflict between Nurses Hernandez and O'Neill on the one hand and Mr Graziano on the other.

5.10. The resolution of this conflict is not helped in this case by the manifest inadequacy of detail in the notes made by the nursing staff at the Hospital. Nurse Hernandez simply recorded the words ‘chest pain’ on the triage form. It also records the normal oxygen saturation level. Nurse O’Neill simply added the letters ‘MSK’ to that, indicating the possibility that the pain was of musculo-skeletal origin. This document records the deceased’s triage category of 3. It is a document that is plainly intended to act as a record of the patient’s presentation and symptomatology for the purposes of triage. It is deficient in that it fails to record very important information such as the denial of radiated pain and the duration over which the deceased’s symptoms had persisted. It fails to record the deceased’s responses to a whole host of other enquiries that the two nurses say they made of the deceased in an endeavour to eliminate his chest pain as being of cardiac origin. I appreciate that the triage process is not intended to be a full medical evaluation. However it is, to say the least, an unhelpful document and taken at face value suggests, in accordance with the evidence of Mr Graziano, that any examination or assessment of the deceased was indeed a peremptory one. I do not know where the truth of the matter lies. Nurses Hernandez and O’Neill were insistent that all of the usual questions were asked of the deceased when exploring the origin of his chest pain. I frankly do not know whether they were providing me with a recitation of what the deceased was asked or of what he should have been asked. I do not doubt that Mr Graziano accurately and without embellishment described the deceased’s condition when he collected him. I also find it unlikely that the deceased would have expressly or impliedly ascribed his pain to a lifting incident that day when Mr Graziano, I find, had been told that the pain had persisted for a week and a half, mainly in the evenings.

5.11. On the other hand, Mr Graziano proved himself to be less than accurate as far as the time over which they had waited was concerned. He was also mistaken as to how busy the Department was. At one time he admitted that he had a ‘shocking memory’ (T92), although I appreciate this may have been a throw-away comment in the context in which it was made, and at another time he said ‘my memory is fairly good’ (T117). Some of his answers on important topics were rather inconsistent or equivocal at times. For example, he said at T101 that there was something mentioned in conversation with the triage nurse as to how long the pain had existed, but could give little detail as to that and conceded at T104 that he really did not recall whether there had been something mentioned on that issue. When pressed at T104 as to whether he

could recall the deceased actually telling the nurse that he had pain in his arms or arm, he said that he did not and went on to say that he did not really recall the deceased's response to the enquiry as to where his pain was. He was pressed again about this and said:

> 'I remember the chest part very clearly but I can't say about the arms because like I said, you know, he was at the counter. I mean he wasn't - if he was my 10 year old son I would be dragging the words out of his mouth but I mean he was an adult, he can explain himself the pain. I mean - I remember the chest pain. I do not remember about the arm pain, okay, I mean that's as far as a remember.' (T118)

Later he said

> 'I can't remember word per word what he said but the pains were there, he was curled up and - if I sort of just sat back and - yes. He did mention pains in his chest and his arms and that was - that was related back to the hospital at Modbury. Yes, it would have. It was arms and his chest - chest and arm.' (T119-120)

5.12. It is to be observed also that Mr Graziano later that morning at the Royal Adelaide Hospital made a statement to the police (Exhibit C1a) in which he did not say that the deceased had described pain in his arm. In the end, he effectively told me that he was not sure whether he had an actual recollection that the deceased had described arm pain. He said:

> 'He rang me and told me he had pains. Okay. Chest pains. Whether he said arm pains I don't know. I mean, I'm presuming that's what he said; pains in the arms and chest and, of course, I didn't hesitate. I picked him up. Took him up to Modbury. Now, like I said, pain, chest, arms, I mean that's all very connected. I mean, you know, I mean he didn't - I can't remember exactly whether he said 'It's my right arm or me left arm', or whatever, but he said he was in a lot of pain and it was such a huge pain he couldn't explain it … I mean I was concerned about it because he had pains in the chest and whether he said his arm or whatever - he certainly didn't say it was his left toe or anything like that. I mean it was definitely to do with what went wrong.' (T137)

5.13. Notwithstanding Mr Graziano's inconsistency on this issue, the fact remains that there is no doubt that when the deceased was collected at his home by Mr Graziano, he was suffering from cardiac pain as events were later tragically to confirm. In these circumstances, it would hardly be surprising if he had in fact been suffering from radiated chest pain in his arm or arms and equally not surprising if he had endeavoured to make that clear to the nurses whose assistance he was seeking. Herein lies a difficulty. I am not prepared wholly to discount the possibility that the deceased was asked by the nurses about that important issue and that he may have given a negative or equivocal response. However, notwithstanding the shortcomings

in his testimony, Mr Graziano's evidence as a whole leaves me with a real doubt about the accuracy of the evidence given by Nurses Hernandez and O'Neill as to whether or not the deceased was asked the questions they say he was asked and whether or not he gave the responses he gave. I have real doubt to the point where I am unable to find on the balance of probabilities that the assessment made by Nurses Hernandez and O'Neill was a satisfactory one. Equally, I am unable to find to the same level of satisfaction that Mr Graziano's description of what was said or not said at the hospital as to the deceased's symptoms was correct. As I say, I simply do no know where the truth lies.

6. The appropriateness of triage category 3 in this instance

6.1. Dr Evan Markwick, the Director of the Emergency Department of the Hospital, told me that the Priority 2 – Chest Pain Procedure that existed in September 2000 was underpinned by a philosophy that dictated that:

> 'All chest pains should be treated as of cardiac origin until proven otherwise, because of the potential for a serious outcome.' (T142)

He acknowledged that the directive to the triage nurse to allocate priority 2 'if appropriate' conferred a discretion on the part of the triage nurse:

> 'Wherever possible to exclude over-triaging of less severe cases that didn't warrant the clinical priority of a condition such as cardiac chest pain.' (T143)

He offered as an example of where a lower category than priority 2 might be allocated, chest pain caused by simple trauma from a sporting injury. He acknowledged that the procedure required the triage nurse to exercise a clinical judgment in order to confirm whether someone would fit into a priority chest pain 2 category, or whether there might be some other cause of a non-cardiac origin that would justify a lower priority.

6.2. As observed, one of the salient features of Dr Markwick's understanding of the Priority 2 – Chest Pain Procedure that existed in September 2000, a document to which Dr Markwick lent his signature, was that chest pain should be regarded as cardiac origin until proven otherwise. An assessment as to whether the pain was or was not cardiac in origin would, in Dr Markwick's view, include consideration of the nature, intensity and duration of the pain and also include an assessment of risk

factors, such as the age of the person. As to what could or could not be proved at the triage stage, Dr Markwick said:

> '… the triage is only just an assessment and it's certainly by no means an exact science, although it should be designed that it's inclusive rather than exclusive. And that, at the end of the day, some decisions are reliant on clinical judgment, so that's the only degree of proof that a triage nurse would have to say that chest pain in a given person is unlikely to be cardiac.' (T165)

6.3. In relation to the particular matter before me, Dr Markwick told me that he was surprised that the assessment of musculo-skeletal pain had attracted priority 3. Normally such an assessment would attract priority 4 or 5. The assignment of category 4 or 5 would be reflective of the need for the triage nurse to be very certain that it was a case of musculo-skeletal pain rather than something more serious. While I did not understand Dr Markwick to be saying that chest pain should have been ruled out with absolute certainty before a lower priority than 2 was accorded, it seemed to me from his evidence as a whole that that is how he would have wanted the procedure to operate. Dr Markwick agreed, therefore, that the assigning of category 3 in this instance may have been reflective of a degree of uncertainty on the part of the triage nurse. It may have been consistent with a general apprehension in dealing with chest pain that 'until you've done a full assessment, you can never be sure'.

6.4. The comment that arises inevitably from the above is that the situation that prevailed in September 2000 involved a person, the triage nurse, exercising a discretion which he or she was singularly ill equipped to exercise, both in terms of expertise and resources. For instance, a triage nurse making a triage assessment for a chest pain presentation did not under the September 2000 protocol have available to him or her an ECG examination result, an important diagnostic measure for pathology of cardiac origin.

6.5. This view of the matter was supported by the evidence of Professor Chris Baggoley who is the Director of the Emergency Department at the Royal Adelaide Hospital. Prior to that appointment, he was the Director of Emergency Services at the Ashford Hospital and had been the Director of Emergency Services at Flinders Medical Centre before that. Professor Baggoley is a very experienced emergency medicine practitioner. He told me that in his experience the discretion residing in the triage nurse at the Modbury Hospital was anomalous in that such a discretion was not

commonly found in other Emergency Departments. Professor Baggoley told me of his experience at the Flinders Medical Centre. He said:

> '… I had concerns - and this was back in the late '80s - of the impact of - and the tasks and the demands were placing on our triage nursing staff, whose role simply is to assess the urgency for medical care for a patient, and understanding that heart attacks can produce a wide variety of symptoms from the very obvious to the quite obscure, and I thought that in a series of a few minutes that is available to the triage nurse we shouldn't certainly ever be asking them to diagnose a patient's condition, be asking them to sort out their urgency for care. And the implications for the decision in relation to chest pain could be quite profound. So that if a, say, musculoskeletal cause was ascribed to a chest pain at triage, then that patient may have a score that would put them below the queue when, in fact, they could be having a heart attack.' (T182)

Professor Baggoley said in essence that with chest pain it is too difficult to be sure, even when it appears that it might have a muscular origin, that it was not symptomatic of a heart attack and that the only way to be sure was to perform an immediate ECG (T187). Even then an ECG may not be completely diagnostic.

6.6. As to whether in his view there had been an inappropriate triage assessment under the Hospital's procedure as it had existed in 2000, Professor Baggoley acknowledged that on the picture as painted by the nursing staff involved, there were 'a lot of factors that the deceased did not have that are commonly associated with cardiac pain' (T192) and he cited lack of radiated pain, sweatiness and nausea as examples. Nevertheless, given the fact that the overwhelming likelihood was that the deceased had been presenting with cardia chest pain:

> '… it really just does go to highlight how impossible it can be to try and make a decision at that phase of the patient care as to whether the pain is cardiac or not.' (T193)

Professor Baggoley was of the view that on the scenario expressed in evidence by nursing staff it was difficult to be critical because it seemed that they had been working within the existing parameters of their department and within the necessary requirements

6.7. Professor Baggoley's opinion, of course, was based as I say on an acceptance of the scenario as described by the nursing staff. For the reasons I have given earlier, I have been unable to reach such a generous conclusion. It therefore remains an open question as to whether in all of the circumstances the triage category of 3 was

appropriate, even under the existing Modbury Hospital guidelines as they applied in September 2000.

6.8. In circumstances where the time stipulations for triage priorities less than category 2 were not adhered to, the priority 2 guidelines at the Hospital, in my opinion, were a blueprint for tragedy insofar as they unfairly placed an inappropriate diagnostic burden on a person who in reality was unqualified to carry it.

7. Did the deceased's triage category of 3 have any impact on the outcome in this matter

7.1. Had the deceased been accorded category 2 priority, thee is little doubt that he would have received prompt treatment. Whether he would have survived in those circumstances is another matter. When asked as to his view in respect of this issue, Professor Baggoley was guarded. Asked if the deceased's death could have been prevented, Professor Baggoley suggested in effect that the literal answer was 'yes' (T189). I took Professor Baggoley's answer to mean that it might have been prevented. As to whether it would have been prevented, Professor Baggoley pointed to the intrinsic uncertainty involved in the matter. I accept Professor Baggoley's evidence that there were a large number of factors to be considered. An ECG result could have detected evidence of a heart attack or evidence of the heart under strain and this would have resulted in the deceased being admitted and monitored. Certainly, if he had suffered an acute heart attack at the Hospital, he could have been given drugs in an effort to dissolve the clot in his coronary arteries and if he had arrested, on the spot measures such as defibrillation could have been employed. He told me that the outcome for an in-hospital cardiac arrest was substantially better than one that occurred out of hospital or even in a hospital waiting area. Professor Baggoley said:

> '… So there's a series of opportunities that would have - could have been there to prevent Mr De Ionno dying. We don't know what his cardiogram would have shown and - even if his cardiogram was normal, what would follow would depend on the detailed history which would been taken by both the nurse and the doctor in that treatment cubicle setting. They would have had the opportunity to check history - family history of heart disease perhaps, of high blood pressure, of diabetes, of smoking. Might have been able to find more about the pain; if it had ever been there before, what brought it on, were there any aggravating factors, and so on. He could have been examined. Usually in a heart attack on the examination - someone with stethoscope and so on - there is not much to find at all. It may well have led the - that history and examination may have led to some blood tests being taken and some markers for cardiac disease may have been found. But as I've also indicated, even if there was nothing convincing - positive to show for cardiac disease, if there was no convincing negative that is often a reason just to hold

someone for observation; for repeat cardiograms, for repeat blood tests, and then for - if they're still proving fine certainly it is now becoming increasingly commonplace for a patient who has had the suspicion of cardiac disease with them to have an exercise test where they are given exercise. They're hooked up to a cardiogram and they see, with the pressure and strain of exercise, whether their heart muscle shows evidence of strain. So there are a whole series of ifs and we will never know of course. ' (T190)

7.2. While it is not possible to say confidently that the outcome for the deceased would have been different if he had been accorded priority 2, it is fair to say that his chances of survival would have been significantly improved if he had been afforded the examination and treatment that a priority 2 classification implies.

7.3. I think it is also fair to say that even with a priority 3 classification his chances of survival may have been enhanced if he had received treatment within the stipulated treatment time of 30 minutes. The deceased left at 9:48pm, about two hours before his heart attack at the Royal Adelaide Hospital. There is no reason to suppose that the treatment contemplated by Professor Baggoley which would have been afforded under a priority 2 regime, could not have been afforded at the Hospital had he chosen to stay. Some might say in hindsight that his decision to leave was ill advised. But he was feeling and looking better and in my view, because of the busy conditions that existed at the Hospital, he was given no reasonable expectation that he would be seen by a doctor within a reasonable time. That is so because, I find, that there was no reasonable expectation on the part of nursing staff that he would be so seen. The deceased's decision to leave in these circumstances is hardly surprising.

8. Remedial measures taken by the Hospital

8.1. As a result of his death, the Hospital took immediate steps to ensure that patients presenting with chest pain are accorded priority of treatment.

8.2. I have already referred to the evidence of Professor Baggoley which suggested that the Priority 2 – Chest Pain Procedure at the Hospital was out of step with existing protocols at other hospitals.

8.3. I received in evidence a document entitled Priority 2 – Chest Pain Protocol which was promulgated on 7 September 2000 for use at the Hospital Emergency Department (Exhibit C10a). This amends and supersedes the earlier procedure to which I have referred. The most significant amendment is that the words 'if appropriate' have been deleted from the directive that the triage nurse allocate priority 2. This removes the

discretion residing in the triage nurse to allocate a lower priority. It is now mandatory for the triage nurse to allocate priority 2 in the case of chest pain and it applies to presenting patients of all ages. Had such a protocol been in existence in September 2000, there is little doubt that the deceased would have been allocated priority 2, been given an ECG and seen by a doctor within 10 minutes or thereabouts.

8.4. This measure in my opinion is soundly based. It means that a senior nurse is notified of the presentation and the patient is immediately taken to a cubicle without any waiting time involved. An ECG is then performed and the results of it are then immediately seen by a medical officer. If upon review of the ECG trace no immediate treatment is required, the patient can be de-prioritised and be fully assessed later.

8.5. Professor Baggoley had one comment to make about this protocol. Insofar as the protocol might suggest that the initial assessment of the patient in the cubicle, including the ECG examination, should not commence unless the medical officer is notified, Professor Baggoley suggested that this was inappropriate and could cause unnecessary delay. He suggested that there was no reason why the ECG examination could not be performed by nursing staff with haste and that the doctor be notified when the result comes to hand.

8.6. Dr Markwick signed the amended protocol. Unfortunately, when Dr Markwick was in the witness box, he was not afforded the opportunity to comment upon Professor Baggoley's observations in this regard. As a result, I invited counsel for the Hospital, Ms Karpinski, to seek the comments of her clients in relation to this issue. I set out Ms Karpinski's written response as contained in her letter to me of 3 January 2003:

> '… I am instructed that the reason for the proviso in the Modbury Public Hospital "priority 2 – Chest Pain Protocol" that "Do not start the assessment of the patient eg ECG, unless the Medical Officer has or is being notified" was that the hospital was particularly concerned with attempting to ensure that a doctor saw the patient within ten minutes in accordance with the patient being given a National Triage Score of 2. Given the time necessary to set up and take an ECG, it is extremely unlikely that the patient would be seen by a doctor within ten minutes if the doctor was not at least in the process of being notified while the ECG was being done.'

8.7. It seems to me that this explanation is a satisfactory one and one that would probably allay the concerns raised by Professor Baggoley.

9. Recommendations

9.1. I heard evidence from Dr Richenda Webb, who is the Director of Medical Services at the Hospital, to the effect that the new chest pain priority 2 protocol is being adhered to in the vast majority of cases. She told me that occasionally there may be a minor departure from the 10 minute timeline when the Department is extremely busy, but that there were no major departures occurring. I accept Dr Webb's evidence about that.

9.2. In the event, I do not see the need to make any recommendation concerning the assignment of triage categories in chest pain cases. To my mind the difficulty underscored in the deceased's case was the existence of the discretion in the triage nurse to assign a lower priority. That discretion has appropriately been removed.

9.3. I asked Ms Karpinski to seek her client's instructions as to the appropriateness of my making an across the board recommendation that all Emergency Departments adopt the protocol that now exists at the Hospital, a protocol that has consistently been advocated by Professor Baggoley and which, on his evidence, appears to be in wide use. I am persuaded by Ms Karpinski's response that I should not make such a broad recommendation, given that the procedures and the organisation of staff may be different in each hospital. However, I do recommend that the Directors of Emergency Departments of all hospitals give consideration as to whether in all of the circumstances that exist in their respective hospitals, it continues to remain appropriate for triage nurses to have any discretion in allocating triage priorities for patients presenting with chest pain.

Key Words: Emergency Departments

In witness whereof the said Coroner has hereunto set and subscribed his hand and

Seal the 17th day of March, 2003.

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Coroner

Inquest Number 26/2002 (2282/2000)