IN THE CORONERS COURT)
AT CANBERRA IN THE)
AUSTRALIAN CAPITAL TERRITORY) CD 279/2003

INQUEST INTO THE DEATH OF STEPHEN MOON

Reasons for Findings of Coroner Dingwall
Published on the 24th day of September 2012

1. An inquest into the death of Mr Stephen Moon ("Stephen") was commenced by Mr R.J. Cahill, Chief Coroner on 15 December 2003, the day on which Mr Moon's death was reported to the Chief Coroner. A brief of evidence was provided to the Chief Coroner in February 2005. Following submission of the brief of evidence, the Chief Coroner directed that a number of further statements be provided and expert reports be obtained. Ultimately, as part of the inquest, a public hearing commenced on 1 March 2006. Thereafter, the evidence was taken over 12 hearing days between 2006 and 2007, producing 800 pages of transcript. The last day of hearing was 18 July 2007. The written submissions of Calvary and Disability ACT were filed in July 2009. The hearing was completed on 21 July 2009, when oral submissions were heard. Unfortunately, Mr Cahill had not made any findings when he suddenly, and unexpectedly, resigned his position as Chief Magistrate and Chief Coroner in 2009.

2. The hearing in this matter was very lengthy and involved complex medical evidence and opinion. However, after reading the transcript of the hearing, considering the exhibits and reading the written submissions of Counsel Assisting, Counsel for the Australian Capital Territory and Counsel for Calvary Hospital ACT, I have determined that I am able to make the findings required by the *Coroners Act 1997* (the Act) without re-hearing any evidence or inviting further submissions. In my view, this is the appropriate course in all the circumstances.

THE LEGISLATIVE SCHEME

3. The inquest into Stephen's death was commenced by virtue of sub-paragraph 13(1)(c) of the Act. This provision requires a coroner to hold an inquest where a person "dies, or is suspected to have died, a sudden death the cause of which is unknown".

4. Sub-section 52(1) of the Act, requires the coroner holding an inquest to find, if possible-

> "(a) the identity of the deceased; and
> (b) when and where the death happened; and
> (c) the manner and cause of death; and
> (d) in the case of the suspected death of a person—that the person has died."

5. Sub-section 52(3) of the Act provides that "At the conclusion of an inquest…, the Coroner must record his or her findings in writing". Section 52(4) provides for the

discretion of a Coroner to comment "on any matter connected with the death…including public health or safety or the administration of justice".

6. Section 55 of the Act sets out the procedure that a Coroner must follow if he or she is to make an adverse comment in relation to a person. I do not propose to make such comments in relation to this matter.

7. A coroner may make recommendations to the Attorney-General on any matter connected with an inquest, pursuant to section 57(3) of the Act. The relevant parts are as follows:

> "57 **Report after inquest or inquiry**
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> …
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> (3) A coroner may make recommendations to the Attorney-General on any matter connected with an inquest or inquiry, including matters relating to public health or safety or the administration of justice."

FACTUAL FINDINGS

8. Stephen was 21 years old, when he died at [redacted] Street, Narrabundah in the Australian Capital Territory on the 15th of December 2003. He suffered from autism and an intellectual disability, with associated issues of violent behaviour. He was non-verbal and used a sign language to communicate with his carers.

9. Stephen was cared for by Disability ACT, which provided 24-hour care for him in a residential unit. He had his own carers as it was important for him to have continuity of care and so as to enable him to form a relationship with his carers. It also enabled his carers to identify Stephen's behaviour, especially if his behaviour escalated to violence.

10. Mr Jason Finnegan and Mr Jason Mills were Stephen's regular carers together with Mr Benjamin White who was the network co-ordinator for Disability ACT. They had the day-to-day care of Stephen and built a strong rapport with Stephen. It was unusual for Stephen to be looked after by someone other than those who had built up a rapport with him because of his tendency to violence at times, and the ability of those who had built that relationship to be able to read the signs and pre-empt or adjust and control his outbursts.

11. In 2003, Stephen developed tooth pain in his wisdom teeth. It was decided by his carers to seek assistance for his problem. His behaviour had been deteriorating. He was frequently and severely assaulting his carers. He had also been having episodes of severe self-injury and aggression. Mr Finnegan, together with other support carers, discussed the medical management of Stephen's dental problem with Dr Wurth, his treating psychiatrist, and Dr Jacques Ette, his treating GP. Their opinion was that Stephen's behaviour was due to problems with his wisdom teeth. It was agreed that he needed to have surgical removal of his wisdom teeth as soon as possible. Given his history it was decided to seek assistance from Calvary Hospital ACT ("Calvary").

12. A meeting was held on 10 December 2003 at Calvary Hospital to discuss strategies and options to manage Stephen's operative and post operative care. Present at the meeting were Mr White and Mr Finnegan from Disability ACT; Ms Brenda Malcolm (nee Fields), Stephen's appointed guardian; Dr Frank Lah, anaesthetist; Dr Paul Lamberth, Director of Intensive Care and Ms Deirdre Barter from the Link team.

13. A history of Stephen's problems and behaviours was discussed at length at the meeting. Mr Finnegan said that he made it clear to the medical persons attending that "staff within ACT Disability had inadequate training to deal with Stephen's postoperative care and that Stephen would be required to stay within the hospital environment until such time that medical intervention was no longer required."

14. Mr Finnegan also stated that the meeting participants were advised that Stephen had a previous operation at Canberra Hospital and it was his understanding that the notes from Canberra Hospital were to be retrieved. There were no official minutes of the meeting.

15. Given dental extraction is a relatively minor procedure, 7 days ventilation would ordinarily be viewed as extreme, however it was decided that it was the best way to deal with Stephen's multiple problems which included self-harming which causing infection in the wounds. The risks were outlined at the meeting and included the possibility of pneumonia, blood clots and other minor risk factors.

16. At the meeting, Mr Finnegan discussed with the medical attendees the discharge plan for Stephen after he was extubated in the Intensive Care Unit (ICU). There was discussion as to the plan of discharge and the risk factors if Stephen was recovered in a ward setting were acknowledged. A plan was devised that he was to be woken up in ICU. He was then to be taken down to the ambulance bay when semi-conscious and shown his van which would be parked nearby. This was done because Stephen seemed to feel safe in his van and it would assist him to re-orientate as his van was a familiar item.

17. Mr Finnegan said that it was his recollection that it was agreed that after Stephen had been shown the van he was to be taken to a room in the Emergency Department to be woken up completely.

18. On 12 December 2003, Stephen was admitted to Calvary Hospital. He was taken to theatre and underwent wisdom teeth extraction. He was then transferred to ICU for his post-operative recovery. The plan was that he would be intubated for 7 days until healing had taken place and swelling had reduced. However, Dr Lamberth revised the plan because the teeth extraction had not been as complicated as had been expected and the swelling had reduced.

19. Stephen had also started to develop pneumonia which was thought to have been caused by the ventilation. This is not an unusual complication associated with this treatment. It was then decided to extubate Stephen early and Mr Finnegan was advised by Calvary on Sunday, 14 December, that Stephen would be ready for discharge on Monday, 15 December.

20. Mr Finnegan was concerned about taking Stephen home and voiced his concerns to the nurse attending Stephen, and also Dr Lamberth, about fluid on Stephen's lungs and said that he did not want to take him home if there was a risk of pneumonia.

21. Stephen was extubated in the ICU and an oxygen mask was positioned on him but it was removed because he was uncooperative and did not need supplemental oxygen. He was then taken to the ambulance bay by four wards men, two nurses, Dr Lamberth and Mr Finnegan. He was wheeled close to the van and about an hour and a half later he was able to get into the van by himself.

22. Mr Finnegan drove Stephen to his home in Narrabundah and Stephen walked into the house by himself, although he was unsteady on his feet. He eventually went to his bedroom. Mr Finnegan maintained observations of his breathing and level of consciousness. At one stage, Stephen soiled himself and had to be cleaned up by Mr Finnegan and Mr Peter Burnet, a Disability ACT officer. Stephen also asked for and was given a drink of water.

23. At approximately 7.30 pm, Mr Mills arrived at the house to commence his shift. Over the next hour, Mr Mills and Mr Finnegan encouraged Stephen to lie on his side. During that time Stephen was responsive to his carers.

24. Mr Mills and Mr Finnegan observed Stephen every few minutes, whilst trying to respect his space and privacy, but at the same time monitored his condition as best they could.

25. At one point Stephen got out of bed and was unsteady on his feet. Mr Mills had to hold him up against the wall. He had soiled himself so both Mr Mills and Mr Finnegan cleaned him up and put him back to bed. They both continued to monitor Stephen without trying to crowd him or cause him agitation.

26. Mr Finnegan noticed that Stephen's breathing had become shallow. He called for Mr Mills to assist him. He then observed that Stephen was not breathing and called for Mr Mills to call an ambulance. Mr Finnegan commenced CPR but encountered a lot of fluid coming from Stephen's mouth and had difficulty clearing his airway. Mr Finnegan was unable to get any air into Stephen's lungs and described the difficulty he was having as "like blowing into a milkshake I was blowing in and it was just bubbling up coming out of his nose and mouth, and it was getting darker".

27. Mr Mills then assisted in trying to clear Stephen's airway but he still had fluid coming up. It appeared that he was fighting a losing battle in trying to clear Stephen's airway. Some time later, the fire and ambulance services arrived. The officers moved Stephen to the floor and commenced CPR, but, after a short time, indicated to Mr Finnegan that they were unable to revive Stephen.

28. It is clear that both Mr Mills and Mr Finnegan were very dedicated carers of Stephen and built up a very close relationship with him. It was also obvious that Stephen trusted his carers.

29. Neither Mr Mills nor Mr Finnegan had any medical training but they did have first aid certification as required for their employment as carers.

MEDICAL OPINIONS ABOUT THE CAUSE OF STEPHEN'S DEATH

30. The determination of the manner and cause of Stephen's death has proved to be a difficult task due to a number of differing medical opinions offered in respect to that question. The various opinions are discussed in the following paragraphs.

Dr Sanjiv Jain

31. Dr Sanjiv Jain was the forensic pathologist, who performed a post-mortem examination of Stephen's body at the direction of the Chief Coroner. He prepared a written report. It included a toxicology report prepared by Mr Dennis Pianca, the Director of Forensic Chemistry, ACT Government Analytical Laboratories.

32. In Dr Jain's opinion, Stephen's died as a result of a combination of septicaemia and respiratory failure caused by acute bilateral pneumonia of three to four days duration. He found no other abnormalities which, in his opinion might have contributed to Stephen's death. In his view pneumonia pneumonia was the primary cause of death.

33. Dr Jain explained that when he commences an autopsy, he firstly conducts an external examination of the body followed by an examination of the orifices such as nose, mouth, and ears. Anything of note is recorded. Dr Jain then makes an incision from neck to pubis and the internal organs and cavities are examined. The organs are removed and examined together with major blood vessels. Tissue samples are taken and examined and also taken for microscopic examination. Blood and urine is also collected for examination and toxicology and microbiology if required. Dr Jain also indicated that he reviews the report to the Coroner prepared by the police. Dr Jain also had access to Stephen's medical records.

34. Dr Jain indicated that he was aware that Stephen had dental extractions and said, knowing that fact, he would have examined Stephen's mouth. Dr Jain said that if there had been anything such as blood coming from the wound he would have written that in his report. Most likely he would not have commented if the wound had broken down or sutures torn out, as that is not relevant to establishing death. If the tongue had had significant swelling or bite marks he would have noted that in his report.

35. Dr Jain examined the lungs and reported that they were very wet and heavy, not normal air filled sacs but with a solid feel to them. On histology the tissue was found to have extensive intra-alveoli neutrophils with focal areas of necrosis. Dr Jain said that these findings indicated that fluid and neutrophils had fallen into the lung spaces, the spaces where there should be air. He explained that the fluid and neutrophils were there to fight infection, which is the cause of the pneumonia.

36. Dr Jain specifically ruled out that the fluid was pulmonary oedema. He said that when you have leaking capillaries, which leak fluid into the lungs, you get pulmonary oedema. However, even though macroscopic examination of Stephen's lungs appeared to reveal bilateral pulmonary oedema and congestion, this was not found, on histological examination, to be pulmonary oedema but in fact pneumonia. Dr Jain went on to say that in the early stages of pneumonia it is difficult to distinguish between pneumonia and pulmonary oedema.

37. In relation to a suggestion that negative pressure pulmonary oedema was the cause of Stephen's death, Dr Jain said that this usually occurs not long after extubation and also where there has been an obstruction, which has been cleared. He noted that in Stephen's case there was no obstruction and also it would not apply to him as he had pneumonia.

38. Dr Jain also excluded aspiration as a cause of the pneumonia and was of the opinion that the pneumonia had been present for about three to four days in duration in light of the focal areas of necrosis. Dr Jain took samples of both lobes of both lungs and considered that both lobes of both lungs were equally involved. In his view, the pneumonia was extensive. He specifically looked for aspirate because of the history ascribed to Stephens's situation but found no evidence of it.

39. Dr Jain was of the opinion that the extensive pneumonia would cause significant restriction of the air exchange, which meant less oxygen in the blood. There was also

significant bacterial infection in the blood indicating septicaemia. He said that was a combination of things that led to Stephen's death.

40. Dr Jain said it is not unusual for someone to appear well at night and be dead in the morning from pneumonia, in his experience even younger people can get pneumonia which progresses quite quickly.

41. Dr Jain noted that often what is seen clinically and what is expected to be occurring clinically is not what is necessarily happening pathologically. They don't always match up exactly.

42. Dr Jain commented on Dr Clarke's report and agreed that Stephen had an enlarged heart with left ventricular hypertrophy from chronic hypertension. Dr Jain agreed that that in itself could cause sudden death, but with such a condition it is more likely a combination of things that leas to death. He also noted that people can die of something else and have an enlarged heart, which is not causative of death.

43. In relation to an arrhythmia, Dr Jain noted that there was no record of any arrhythmias so it is most unlikely that an arrhythmia caused Stephen's death.

44. Dr Jain was asked to review the report of Professor Duflou. He agreed with Professor Duflou's conclusion that Stephen's death was caused by pneumonia based on the histological findings of extensive pneumonia throughout Stephen's lungs, which was sufficient to cause death.

45. Dr Jain said that he would not be able to tell if someone died from a seizure or Propofol induced seizure without the benefit of specific observation of the circumstances surrounding the death. As far as he was aware, no one had made any observations of a seizure.

46. In relation to what could cause frothy type fluid to come from Stephen's mouth, Dr Jain said it could be a variety of reasons, but is related to pulmonary oedema caused by a number of things including left sided heart failure, infection, drugs, radiation, oxygen toxicity and post obstructive pulmonary oedema (negative pressure oedema).

47. In relation to a hypothesis of a prolonged QT complex, Dr Jain agreed with Professor Duflou's observation that there was no evidence of a rhythm disturbance whilst Stephen was being monitored in ICU.

48. Dr Jain discussed the published studies done about discrepancies between clinical and post mortem causes of death and said there is still a 30-40% differential between what's seen and diagnosed clinically and what is found on autopsy.

49. Dr Jain said that he had discussed his findings with Professor Mark Hurwitz, a respiratory physician. He reported that Professor Hurwitz agreed that a person could die of pneumonia in the same way as Stephen appeared to have done.

50. Dr Jain did not agree with the suggestion that when Stephen was observed to start to shallow breath it was an indication of an airways obstruction. He said that in fact it was consistent with pulmonary oedema fluid coming up through the mouth and nostrils. In his opinion, if there had been an obstruction, Stephen would have been observed to be struggling or fighting for breath.

Dr John Clark

51. Dr John Clark, Consultant Forensic Pathologist, University of Glasgow provided a report in which he expressed an opinion as to the cause of Stephen's death. He had done this at Dr Jain's request. In his letter of request, Dr Jain had not suggested any hypothesis or opinion in relation to cause of death. Dr Clarke assumed that Dr Jain wanted an opinion from someone outside Australia.

52. In his report, Dr Clark set out the background to Stephen's death and his conclusion that pneumonia was the cause of death. Dr Clark also considered that Stephen's enlarged heart was a significant factor together with the high range of Propanolol, which he understood was at a level which was in the high range of what would be considered therapeutic in Australia. Dr Clark reviewed the tissue slides and considered that there was a significant amount of pneumonia in all sections of the lungs and in his view it could have caused Stephen's death. In his experience, people have died with a lesser amount of pneumonia and also noted that a great deal depends on the patient's particular circumstances.

53. Dr Clark's attention was drawn to the carers' observations of Stephen shallow breathing and frothy pink fluid emanating from his mouth and nostrils and he confirmed that this fitted with pneumonia and pulmonary oedema. Dr Clark said that it is sometimes not easy to observe pneumonia macroscopically but microscopically there is no doubt that Stephen had pneumonia.

54. Other scenarios were suggested to Dr Clark but he maintained his opinion that pneumonia was the cause of death because of the positive findings and also because pneumonia can cause the frothy fluid, especially if it's coupled with heart failure - a combination of pneumonia and terminal heart failure. Dr Clark explained that the pneumonia caused a lack of oxygen and this could have triggered the heart to arrest or beat irregularly and that could have caused acute heart failure.

55. Dr Clark gave an example of an autopsy he had performed, on the day he gave evidence. This was on a person who had died from pneumonia. The person had lung weights comparable to Stephen's, had also soiled himself and was seen by his carers a few hours before he died, not complaining about being ill nor looking particularly ill.

56. Dr Clark also recounted a case of a person, on whom he had performed the autopsy, who had been in an ICU, had had several chest x-rays and on autopsy was found to have five rib fractures and severe pneumonia, neither of which were picked up clinically.

57. In Stephen's case, Dr Clark went on to say that "there's very definite pathology in this man, and I think, adequate explanation for his death from a combination of the pneumonia and from his large heart. Yes, I mean, the clinicians don't always know why people die"

Dr James Demetrius Fratzia

58. Dr James Demetrius Fratzia, Director of Intensive Care at Hornsby Hospital, is an emergency medicine and intensive care specialist and. He provided a written report in relation to the circumstances surrounding Stephen's death.

59. Dr Fratzia was invited to Canberra to investigate what had taken place in respect to Stephen's admission and discharge. He was asked to comment on the following four issues:
    - clinical privileges of practitioners involved in Stephen's case;
    - to see if clinical practice guidelines at Calvary Hospital should be developed or altered;
    - to comment on the role/ delineation of Calvary Intensive Care Unit and to consider whether it should move to a level five health service provider and to see whether the fact that Calvary ICU was not a level five contributed in any way to Stephen's demise; and
    - to comment on risk management processes, particularly in relation to senior management.

60. Dr Fratzia also considered the cause of Stephen's death. However, at the time he wrote his report, he had not received all relevant material, including the statements of Professor Duflou, Dr Clarke and Dr Totaro. This material enabled him to narrow down the list of what caused Stephen's death which he had previously put forward.

61. Dr Fratzia accepted as a possibility the hypothesis espoused by Professor Duflou of fulminant pneumonia inceptus, but considered it unlikely because patients with that condition are very obviously sick for many hours, probably 12, before they die. He said that potentially death could occur over 6 hours if the patient's immunity is very poor but that would not happen in a relatively healthy young man. The symptoms would have been obvious, - rapid laboured breathing and appearing very unwell. The oxygen levels taken before Stephen left Calvary was not consistent with that process.

62. In Dr Fratzia's opinion a possible cause of death could have been a cardiac arrhythmia causing cardiac arrest. He said that this could happen out of the blue and is not necessarily something that could have been anticipated.

63. He considered that another possible cause of Stephen's death was the fact that he was very obese and most likely suffered from sleep apnoea, which predisposed him to upper airway obstruction. In his opinion, in these circumstances, and with some sedation on board, he may not have been able to clear the obstruction.

64. Dr Fratzia did not consider that a seizure caused Stephen's death as no seizure was observed and he did not have any history of such. In his view, this was a most unlikely cause of death.

65. Dr Fratzia was asked whether negative pressure oedema could have caused the fluid in Stephen's lungs. He responded that, in his view, any patient that dies from obstruction would have heavy lungs and fluid.

66. Dr Fratzia was also asked if, in his view, the Propofol Stephen had been given may have settled in the fatty tissues and thus have affected his sedation levels for some time. Dr

Fratzia agreed that it was possible for that to occur but that, if it had, it could only have been contributory not causative.

67. Dr Fratzia opined that another possible cause of death could have been that a small amount of blood tickled Stephen's larynx and caused laryngospasm which could have initiated a respiratory obstruction.

Dr Richard Joseph Totaro

68. Dr Richard Joseph Totaro was senior staff specialist in the Intensive Care Unit of the Royal Prince Alfred Hospital, Sydney.

69. Dr Totaro was of the opinion that the likely cause of Stephen's death was upper airway obstruction maybe precipitated by vomiting or haemorrhage with resultant respiratory arrest.

70. After he had examined x-rays of Stephen's chest taken at Calvary, he affirmed his prior view the most likely cause was upper airway problems. In his view, the x-rays indicated that Stephen had pneumonia on discharge and that, coupled with the possibility of laryngospasm from blood irritating the larynx, together with complications of having an endotracheal tube, could have contributed to the obstructive process. In his view, the fact that Stephen had pneumonia at the same time, would have exacerbated his breathing difficulties, because of narrowing of the airway which with the pneumonia, would have made it difficult for the lungs to work properly. In his opinion, a combination of all of these factors could cause an obstructive process. Dr Totaro explained that –

> "because Mr Moon had sedation he was to some extent sedated and presumably had some increased difficulty of his breathing because of the pneumonia that he had. Once the larynx slammed shut, he might've got into a vicious cycle of struggling to breathe, which could have – which arguably could have worsened the laryngospasm, and then would've set off the generation of the negative pressure oedema, or the high negative pressure in his lungs, which then might have set off the generation of a pulmonary oedema once his airway was cleared again."

71. Dr Totaro also said that negative pressure pulmonary oedema was not necessary to cause an obstructive process as a laryngospasm could have been sufficient to cause it in a patient with sedation on board.

72. The suggestion that Propofol played a part in Stephen's death was raised with Dr Totaro. In his view, with a normal liver it would be excreted fairly quickly, even in an obese person. However, he considered that the other drugs administered to Stephen, such as ketamine and morphine, can accumulate in a patient's system and continue to affect the central nervous system and also blunt responses to low oxygen levels or high carbon dioxide levels. It can also change the way the airway works and if threatened may make gagging and coughing reflexes less strong than they might otherwise be.

Dr Michael Burke

73. Dr Michael Burke, Senior Pathologist, Victorian Institute of Forensic Medicine was asked, by the lawyers representing Calvary, to provide an opinion as to the cause of

Stephen's death. In carrying out this task, he reviewed the Coroner's brief, 35 histological slides provided by Dr Jain and four radiographs from Calvary.

74. The review of the histological slides, according to Dr Burke, confirmed bronchopneumonia and pulmonary oedema. He stated that radiological changes of pneumonia may lag behind the pathological processes in the lung.

75. On balance, Dr Burke was of the opinion that Stephen's chest infection did not appear to be a significant clinical problem at the time of his extubation. Consequently, he considered it unlikely that an overwhelming bronchopneumonia would develop and manifest in such a relatively short period of time in an otherwise fit young adult male. He considered that it was entirely expected that a patient in Stephen's circumstances would develop pneumonia. However, in his view, clinically Stephen's pneumonia presented as being of relatively mild severity. In his view, the tissue samples he examined did not show an aggressive or virulent pneumonic process and he noted that abundant pus was not noted macroscopically at post-mortem examination. He acknowledged that his opinion in this regard was contrary to that of Professor DuFlou and, implicitly contrary to the opinions of Dr Jain and Dr Clark.

76. In his opinion, Stephen's death was an unexpected death post-extubation/ventilation, and he had "most probably suffered a sudden cardiac event, or upper airway incident leading to hypoxia and cardiac arrhythmia, causing pulmonary oedema, in this man with bronchopneumonia". In this regard, he placed significant weight upon Stephen's heart weight and the fact that enlarged hearts are electrically unstable and on occasions lead to sudden cardiac arrhythmia causing death.

77. Dr Burke considered that the hypothesis that pulmonary oedema present in Stephen's lungs might have caused him to be unable to breathe "doesn't fit so well" as a cause of death.

Associate Professor Johan Duflou

78. Associate Professor Johan Duflou ("Professor Duflou") is a forensic pathologist and Director of Forensic Medicine, Glebe. Professor Duflou is an Associate Professor in the School of Medical Sciences at the University of New South Wales and a senior lecturer in the Department of Pathology, Sydney University. Professor Duflou conducts post-mortem examinations in all high profile cases in New South Wales for the NSW State Coroner.

79. Professor Duflou was asked for an expert opinion as to the cause of Stephen's death. He was provided with a brief of evidence, together with several other statements and the reports of Dr Lamberth, Dr Clark, Dr Jain, Dr Totaro, Dr Fratzia, Dr Burke, and Dr Paul Burt (Director of Anaesthetics, Calvary).

80. Professor Duflou was asked to comment on Dr Jain's autopsy and report. In his view, the autopsy report was a fairly standard report and the autopsy was conducted in a standard way.

81. Professor Duflou was given tissue slides, which he examined and in respect of which he reached the same conclusions as Dr Jain in relation to the lung tissue. He differed slightly with Dr Jain's findings in relation to the liver, but was unable to say who was most correct.

82. Professor Duflou also differed with Dr Jain in that he was not certain that there was necrotic tissue, so left that out of his findings, but he agreed there were certainly extensive neutrophils, which is highly diagnostic of pneumonia. He said that there was nothing else it could be. He discounted other causes and said Stephen probably did have a cardiac arrhythmia because that was the modality of death but he had no doubt that the cause of death was pneumonia.

83. When asked about the level of pneumonia seen on discharge relative to the level that could have caused Stephen's death, Professor Duflou said that its possible that at the time of discharge his pneumonia was not that bad but may have progressed quite dramatically over a number of hours". He noted that there is often a disparity between clinical findings of very experienced clinicians prior to death and what's found on autopsy. In his experience, there is definitely an error rate in clinical practice in the attribution of cause of death relative to findings at autopsy. He placed the error rate at between 20-30% error rate.

84. In Professor Duflou's experience, autopsy results may sometimes be wrong in some circumstances because the testing is not sensitive but not in the case of pneumonia. In his view, there is absolutely no doubt that pneumonia was present in Stephen's lungs, but noted that it is possible that the extent of pneumonia was underestimated clinically. He considered that even if the samples of lung tissue had come from the worst affected areas, its severity was "more than sufficient to cause death". In this regard, I note that Dr Jain's testified that the sampling of the lungs was extensive.

85. Professor Duflou gave consideration to the possibility that Stephen's death was caused by pulmonary oedema resulting from left sided heart failure but, in his opinion it could be excluded.

86. Professor Duflou was asked what could have caused the pink frothy fluid emanating from Stephen's nose and mouth as described by the carers. He said that pulmonary oedema of itself would be white frothy fluid, but if there was a pink tinge to the fluid, it would be due to pneumonia because there would be some blood in the alveolar spaces causing the pink tinge.

87. In terms of any other cause of death, Professor Duflou excluded arrhythmia because anti-mortem monitoring detected no abnormality. He also excluded obstruction because there was nothing found on autopsy and the staining on the shirt did not show large amounts of blood, and further, on microscopy, there was no evidence of inhalation of blood.

88. Professor Duflou also considered the hypothesis of negative pressure pulmonary oedema associated with airway obstruction but excluded it as a cause of death because as there was no evidence of any obstruction.

89. Professor Duflou also opined that there is good evidence to suggest that antibiotics are not always effective with ventilator-acquired pneumonia ("VAP"), at least in the first instance. He also suggested that, whilst it had been clinically considered that his pneumonia was mild, it may well have been a lot worse than suspected. Another factor was that his pulse oximetry was low at 92-95 which could also have been significant.

90. Professor Duflou did not criticise the clinicians for missing the significant pneumonia because he said an error in diagnosis does not mean a mistake, but an inherent part of the test.

91. Professor Duflou was taken to exhibit 55 photo 9 and he agreed that it looked like bloodstained mucoid type fluid, which is not uncommon in a setting of someone who has died. He also identified fluid on Stephen's face near his eye as blood stained oedema fluid. When shown photo 20 he agreed that the fluid was of two types one which appeared quite red was possibly blood and the other blood stained mucus type fluid.

92. Professor Duflou was asked to express an opinion as to fluid seen coming out of Stephen's mouth and nostrils by his carers. His view was that it was probably oedema fluid possibly mixed with a bit of blood and possibly purulent material. In his view, "the photographs show that there is probably blood staining of the sputum and that would be absolutely expected even if there had been no dental treatment at all in a person with pneumonia".

93. He said that, on reviewing the photographs and witness statements in relation to the fluid, it is "actually fairly typical of a person with fluid in the lungs being resuscitated". He noted that pink blood in resuscitation was quite unusual but in Stephen's case it could have been mucoid material, possibly sputum, mixed with blood.

94. In relation to a hypothesis that the jelly like substance which appeared on the carpet was blood, the size of a small dinner plate, resulting from disturbed blood clots from Stephen's extractions sites, Professor Duflou commented that, if it was caused by disturbed clots from those sites, they would be possibly a centimetre in size which amounts to four centimetres, which is not very big. He was troubled by the hypothesis that Stephen bled from his wounds but kept the blood in his mouth until he died and only then did it came out onto the carpet. He said that just would not happen in real life.

95. Professor Duflou testified that the carers' observation of Stephen shallow breathing indicated a person with terminal pneumonia, not someone who had an obstruction because such a person would be fighting against the obstruction.

96. In relation to the hypotheses that Stephen's death was caused by an obstruction resulting either from laryngospasm or blood from the wound, sub-clinical seizures or negative pressure pulmonary oedema, Professor Duflou said that they are "either totally unprovable, despite the setting of a very lethal disease that is present, or they rely on inexpert observation… of the deceased at a time of great stress …of all the observers".

Dr Paul Gregory Lamberth

97. Paul Gregory Lamberth was the Director of Intensive Care at the Calvary Hospital at the time of Stephen's admission. Dr Lamberth prepared a report the day following Stephen's death, whilst at home, from his memory of what took place.

98. Following Stephen's death, Dr Lamberth reviewed the chest x-rays taken on both 13 and 14 December 2003. He noted some consolidation of the basal segment of the right lower lobe and considered that, given Stephen was obese and had been ventilated, it was not an unusual occurrence that the heart rests on that lobe and can cause some collapse. In his view, this is a common finding with patients in Stephen's situation.

99. It was suggested to Dr Lamberth that Professor Duflou had discovered that both macroscopically and microscopically there was changes in the lungs involving all parts of the lung and they were extensive and well within range of what he would expect could cause death. Dr Lamberth could not reconcile that finding with Stephen's clinical presentation on discharge only a few hours prior to his death. Dr Lamberth also suggested that Professor Duflou had added a rider in that the slides were only representative of the lung tissue. He noted that Professor Duflou also said that he was not surprised about the lack of clinical findings because there is often a disparity between clinical signs, and clinical judgement based on those signs, and post mortem findings.

100. Dr Lamberth said he found it extremely difficult to believe Stephen died from pneumonia because his clinical presentation did not evidence such a condition and, in his view, the fact Stephen could walk, take a sip of water and be later found dead led him to conclude that pneumonia was not the cause of his death. In this regard, he referred to Stephen's blood results, which suggested to him that Stephen had acquired VAP, his blood pressure, temperature and pulse was also suggestive that he was developing VAP. But he noted the improvement in the blood results on 15 December 2003, which suggested to him that the VAP was improving when Stephen was discharged.

101. Dr Lamberth suggested that some of the aspects of his behaviour such as incontinence, banging on a wall and being unsteady could relate to a postictal state (an altered state of consciousness) after a seizure, although he did not relate that to his cause of death.

102. In Dr Lamberth's view Stephen showed on an ECG from ICU that he had a prolonged QRS complex, which in his view could be suggestive of early hypertensive cardiomyopathy and also indicated conduction defect. In view of this he considered that a cardiac arrhythmia could not be ruled out as a possible cause of death. In this regard, I note that the ECG was later reviewed by Dr Tom Gavaghan a cardiologist, who said it was normal.

103. Dr Lamberth noted that another feature was the fact that Stephen was on Chlorpromazine which, coupled with the heart abnormality, could cause a sudden cardiac disturbance such to stop the heart from beating.

104. Another possible causative factor discussed by Dr Lamberth was the effect of sudden airway compromise, caused by either a bleed from the wound or a plug of mucous or by a seizure. Dr Lamberth referred to an article on autism, puberty and seizure to support his hypothesis that seizure was a possible cause of Stephen's death.

105. Dr Lamberth agreed that it was fair to say that the event affecting Stephen as a 9 year old after a tonsillectomy was strikingly similar to the episode which led to his eventual death. Accordingly, he could not rule out the possibility that he was predisposed to some post-anaesthetic type reaction.

106. Dr Lamberth also agreed that hypothetically, if someone had a pre-disposition to having pooled secretions and pneumonia, was lying down and suffering the effects of sedation, that set of circumstances could result in the person stopping breathing. However, he did not support that thesis in Stephen's case because he was observed to have a cough reflex post extubation.

107. Ultimately, Dr Lamberth was of the opinion that, although the cause of Stephen's death could have been pneumonia, it was most unlikely to have developed into a fatal level in such a short time. In his opinion, an airway obstruction, caused by either a seizure or haemorrhage from the operative site, or a cardiac arrhythmia was the more likely causes of death.

Dr Frances Xavier Lah

108. Dr Lah was a specialist anaesthetist with both the Calvary and Canberra Hospital. He attended the pre-admission clinic to assess and discuss the procedure appropriate for Stephen's hospital admission and operation. However, he did not administer the anaesthetic to Stephen on 12 December 2003 because Dr Moradi usually worked in conjunction with Dr Storey and was familiar with "his foibles".

109. Dr Lah did not have any direct input into Stephen's post operative care except that he advised that Stephen should be kept intubated because he was on potent tranquillising drugs and that coupled with strong analgesic drugs could produce a level of sedation similar to an anaesthetic. If this occurred his airway needed to be protected. That was the primary objective and as a bonus it would also deal with the issue of violent reactions by Stephen. Dr Lah was also aware that Stephen could react in a violent way to pain and unfamiliar surroundings.

110. In relation to weaning Stephen off the anaesthetic drugs in order to extubate and discharge him home, Dr Lah testified that the drug used to keep him sedated was Propofol, which has a very short half life and, in Stephen's case, would have been excreted in about 49 minutes to 1 hour. Dr Lah agreed that Propofol would react with other sedative drugs Stephen had been administered.

111. In relation to the cause of death, Dr Lah reviewed the medical notes and also Dr Jain's autopsy findings and expressed the opinion that pneumonia was not the cause of Stephen's death. He formed this opinion because he felt that fatal pneumonia would have been apparent on macroscopic examination of the lungs. In his statement, he alluded to the "neutrophil infiltration seen on microscopic examination and said it was consistent with a patient who had a prolonged period of mechanical ventilation." However, in this regard, it is to be noted that Dr Lah is not a forensic pathologist.

112. He was referred to a passage in Professor Duflou's report that suggested that the microscopic and macroscopic changes were extensive in all areas of the lungs and that Professor Duflou considered it sufficiently extensive to reasonably cause death. Dr Lah replied that if it was a pneumonic process it would take days not hours to manifest to such an extent as to cause death.

113. Dr Lah's attributed Stephen's death to a phenomena called negative pressure pulmonary oedema, which is seen in otherwise fit healthy young people who suddenly have a reversal of their normal ventilation pattern from a positive pressure to a negative pressure. This tends to cause some sheer forces in the periphery of the lungs, which ruptures the terminal alveolar air sacs. This allows them to come into direct contact with the blood, which floods the lungs, dragging more fluid into the lungs because of osmotic forces. Once the lung is full of fluid, the oxygen cannot get across into the blood and the patient becomes hypoxic and can rapidly die.

114. Dr Lah formed this view after being told by Dr Lamberth that Stephen had blood in the frothy fluid he was exhaling when at home prior to his death. Dr Lah did recognise that this phenomenon usually occurs between 3 and 150 minutes post extubation, but suggested that it was not out of the realm at 4-5 hours. He also offered another scenario which could have produced the negative pressure oedema. That being that, due to Stephen's obesity, he would most likely be a candidate for sleep apnoea, which pathological process could also cause negative pressure oedema.

115. In Dr Lah's opinion, the post mortem findings were consistent with his hypothesis of negative pressure oedema in that there was proteinaceous exudate beside the alveolar air sacs.

Dr Paul Burt

116. Dr Paul Burt, the Director of Anaesthetics at Calvary provided a report setting out his opinion as to Stephen's death. He was not called to give oral evidence.

117. He had played no part in planning Stephen's management or caring for him whilst he was at Calvary or subsequently. However, he had developed a familiarity with Stephen's case and had been party to a number of discussions after Stephen's death concerning his care and management whilst he was at Calvary.

118. Dr Burt said that, after considering all the information available to him, including Dr Fratzia's report, Dr Jain's post mortem examination report and the toxicology report provided to Dr Jain, it was his opinion that there is a significant possibility, perhaps even a strong probability, that Stephen dies as a result of an epileptic seizure caused by a rare complication arising from the administration of Propofol, a general anaesthetic agent which is administered intravenously. He noted that Stephen had been sedated with Propofol prior to being weaned from ventilatory support and discharged from hospital.

119. In his report, Dr Burt seemed to suggest that there was no microscopic evidence found at autopsy to provide a possible explanation of Stephen's death. However, it is clear from the evidence of the other experts that pneumonia was found upon microscopic examination of the lungs. Thus, one of Dr Burt's premises was incorrect.

CONCLUSIONS AS THE MANNER AND CAUSO STEPHEN'S DEATH

120. In embarking upon the task of determining the cause of Stephen's death, I remind myself that I am required to be satisfied as to that issue on the balance of probabilities, as opposed to beyond reasonable doubt or with certainty.

121. The experts who were asked to express an opinion gave a variety of causes of Stephen's death. In summary they were as follows –

- Dr Lah – negative pressure pulmonary oedema;
- Dr Burt – Propofol induced seizure;
- Dr Totaro – upper airway obstruction;
- Dr Fratzia – obstructed airway and cardiac arrhythmia;
- Dr Lamberth – sudden death in epilepsy; sudden cardiac arrhythmia or sudden airway compromise due to haemorrhage at the operative site;
- Dr Burke – sudden cardiac event or upper airway incident;
- Dr Jain – bilateral acute pneumonia;

- Professor Duflou - bilateral acute pneumonia;
- Dr Clark – bilateral acute pneumonia in conjunction with an enlarged heart.

122. Calvary submitted that in light of the competing evidence from all the experts, other than Dr Jain, Professor Duflou and Dr Clark, an open finding as to the cause of Stephen's death should be made, thus rejecting the opinions of those three doctors.

123. If the evidence of Dr Jain, Professor Duflou and Dr Clark had not been given, I would have had no hesitation in acceding to Calvary's submission. In my view, the evidence of the other experts as to the cause of Stephen's death was somewhat speculative, inconsistent with each other and lacking any firm basis in the clinical observations or the autopsy findings, such that it is simply impossible to decide which opinion should be preferred.

124. Counsel Assisting submitted that it is clear that Stephen died as a result of a lethal pneumonia. In her submission, the irrefutable evidence provided by the slides of tissue taken from his lungs shows extensive areas of pneumonia sufficient to cause death.

125. Much of Calvary's submissions focussed on criticisms of Dr Jain's post mortem examination, with the purpose of persuading the Court to not accept his conclusion as to the cause of death. In my view, none of the criticisms were valid.

126. Calvary submitted that errors of fact caused incorrect assumptions to be put to Dr Jain, and Professor Duflou, and submitted that any of their evidence which was based on these assumptions should be given little weight. The errors were said to be –

    - that Stephen was given "bag mask ventilation" on the day of his discharge, which he was not; independent ventilation having been successfully established within minutes;
    - that Stephen was being suctioned in the ambulance bay "quite significantly", when in fact he was suctioned frequently from the mouth only and the clinical notes record that that there was clearly a lack of secretions being suctioned off;
    - that Stephen had a temperature of 39.2 degrees at midday on the day of discharge, which he did not.

127. Calvary's submissions did not provide any reference in the evidence of Dr Jain or Professor Duflou where these errors of fact were either put to them as matters they were asked to accept or where they had themselves based their opinions on the factual errors. Upon my reading of the transcript and their reports, I can find none. The only reference given is to the evidence of Dr Burke during which Counsel Assisting did suggest to him that Stephen had been suctioned in the ambulance bay "quite significantly". However Dr Burke did not appear to place much reliance upon this factual error and, indeed, Calvary makes no criticism of his evidence. As to the error as to Stephen's temperature, it was Dr Jain who corrected the error in a context where he clearly was placing no weight upon.
128. Calvary criticised Dr Jain for not recording during the autopsy that Stephen had undergone a recent wisdom tooth extraction. This criticism is wrong. On the final page of his report, Dr Jain states, under the heading "Comments" –

> "Mr Moon was admitted to the Calvary Hospital on 12 December 2003 for extraction of wisdom teeth". This and some other dental treatment was performed under general anaesthesia …"

129. He was also criticised for not looking at the state of the sutures in Stephen's mouth to see if they had been disturbed. Again this assertion is wrong. A correct reading of the relevant passages in the transcript, in context, reveals that Dr Jain did examine Stephen's mouth (one would think it would be impossible to avoid doing as he removed the tongue, larynx and trachea). However, he did say that if he had seen any disturbance of the sutures he would no have noted it in his report because in his opinion it would have had no bearing on the cause of death. In this regard, I note there is no evidence at all that Stephen had disrupted the sutures and that he was under almost constant observation from the time he was discharged from Calvary.

130. The criticism of Dr Jain in relation to not noting the state of the sutures and the wounds was made in the context that even a small bleed from the wounds could have caused laryngospasm, leading to respiratory obstruction. However, the suggestion of laryngospam lacks any support in the evidence of the events between Stephen arriving home and his death. There is simply no evidence that Stephen was observed to be struggling to breathe, as would be expected if he suffered a laryngospasm.

131. Calvary criticised Dr Jain for not noting in his report the state of Stephen's tongue. This criticism is not valid. Dr Jain said that he examined the tongue and if he had seen any injury to, it such as a cut or bite, short of mild bruising, he would have noted it in his report.

132. Calvary criticised Dr Jain for not culturing the lung tissue or the blood to confirm or exclude bacterial infection in the blood to confirm septicaemia. In its submission, there is thus no evidence of bacterial infection in the blood to confirm septicaemia. Leaving aside the questionable value in attempting to culture the lung tissue of a patient who had been administered a broad spectrum antibiotic, Dr Jain, Professor Duflou, Dr Burke and Dr Clark were very clear in their evidence that the presence of neutrophils evidenced bacterial infection.

133. I not that the criticisms of Dr Jain's performance of the autopsy and his report were not supported by Professor Duflou, a very experienced and senior forensic pathologist.

134. Calvary offered very little criticism of the evidence give by Professor Duflou and Dr Clark.

135. In respect of Professor Duflou, it was submitted that, although he agreed with Dr Jain's opinion that there was severe pneumonia in Stephen's lungs, he had not noted the necrosis which Dr Jain said he had found. This statement is not correct. Professor Duflou said that there may have been necrosis present but he was not certain if it was or was not present. Thus, as he was not convinced about it he left it out of his findings. It is significant that, even in the possible absence of necrosis, Professor Duflou was convinced that pneumonia was the cause of death.

136. In respect to Dr Clark's evidence, it was submitted that he had only been given a partial brief which did not include the hospital notes. It was put that he was thus unaware, at the point when he formed his views as to the cause of death, of the relatively benign nature of Stephen's symptoms immediately prior to his discharge and the relatively benign

appearance of the extent of the pneumonia according to the hospital charts and x-rays. In my view, this submission is incorrect. Dr Jain in his letter to Dr Clark set out in some detail the course of Stephen's treatment at Calvary and his condition leading up to and at the time of his discharge. It is apparent from what Dr Jain wrote that any symptoms associated with the pneumonia, which it is clear was present in Stephen's lungs, at the time of his discharge were mild.

137. It was also submitted that Dr Clark was not told that Stephen picked up a glass of water from the kitchen table, held this in one hand and sipped from it at a point within an hour or two before his death. This submission is correct in that Dr Clark was not told about the incident in such detail. However, he was informed in Dr Jain's letter that at "about 7.30p.m.the deceased got out of bed and requested water and was provided with half a glass and returned to his room". In my view, Dr Clark was told sufficient about the incident to be able to conclude that at that time Stephen still seemed to be relatively alert, mobile and not exhibiting an apparent signs of severe pneumonia.

138. Ultimately, I have the opinions of three experienced pathologists who all agree that the pathological evidence they observed explained the cause of Stephen's death. On the other hand, there are the opinions of a number of clinicians which, although genuinely held and put forward in a genuine attempt to assist the Coroner, are not based on any pathology and amount really to speculation. However, I acknowledge that these opinions were the product of an intense scrutiny of the possible causes of Stephen's death and benefitted the process undertaken by this Court in making make its findings.

139. I am, of course, very mindful of Dr Burke's opinion and his significant experience and standing as a pathologist. However, his opinion is contrary to those of the other three pathologists. In his opinion, Stephen most probably suffered a sudden cardiac event, or upper airway incident leading to hypoxia and cardiac arrhythmia, causing pulmonary oedema. He was satisfied there was evidence of bronchopneumonia, but felt that it did not appear to be a significant clinical problem at the time of Stephen's extubation, and thus he considered it unlikely that an overwhelming bronchopneumonia would develop and manifest in such a relatively short period of time after Stephen's discharge. In this regard, I compare his opinion to that of the very experienced Professor Duflou, who is entirely satisfied that Stephen's pneumonia became lethal over a very short space of time.

140. The expert views must be considered in light of the observation of Stephen's carers that he started to shallow breath. On the evidence, this is consistent with pneumonia not obstruction or laryngospasm. Shallow breathing is also inconsistent with negative pressure pulmonary oedema caused by obstruction. Further, the observation of pink frothy fluid emanating from Stephen's mouth and nostrils at the time of resuscitation is consistent with pulmonary oedema; the fact that it was pink is consistent with it being caused by pneumonia.

141. The views of the expert clinicians must be considered in light of the evidence that it was obvious that, although Stephen displayed clinical symptoms and signs of pneumonia and this was confirmed by x-ray, the severity of it was missed clinically. It is a well-known fact that there is a differential in clinical and post mortem diagnosis. Something in the order of 20-30 % of cases have a divergence of opinion from a clinical viewpoint and what is incontrovertibly found on post mortem examination. Ultimately, the fact that the histology showed pneumonia cannot be ignored.

142. Dr Jain is an experienced pathologist of many years standing. He had the unique advantage of actually examining Stephen's body and carrying out a macroscopic examination of his internal organs, including the tongue, larynx and oesophagus. He also personally examined the slides of tissue taken from Stephen's lungs. His opinion was given weighty support by two other very experienced pathologists. On balance, I prefer the opinions expressed by him, Professor Duflou and Dr Clark. I am satisfied that the probable manner of Stephen's death was cardiac arrest which was caused by bilateral acute pneumonia.

143. I satisfied that Stephen's obesity, heart weight and medication were likely contributors to the rapidity with which Stephen's death occurred, but that the major factor causing his death was the pneumonia.

CONSIDERATION AND COMMENTS AS TO STEPHEN'S CARE AND TREATMENT

144. Stephen's dental predicament was a difficult one to solve. It was clear from the meeting involving the carers, the guardian, Dr Lah and Dr Lamberth that the only way Stephen was to be relieved of the pain he had been suffering was for an extraordinary plan of treatment.

145. It became obvious to all participants in the construction of the treatment plan that there were several considerations to be taken into account in relation to Stephen's welfare and the safety of hospital and caring staff.

146. There was the issue of Stephen's size and violent reactions to stressors placed upon him. Those stressors included pain, unfamiliar surroundings, his inability to communicate except by signing to his carers, and having unfamiliar people around him. Clearly this was because Stephen was severely autistic and posed a significant risk to himself and others.

147. In the normal course of events wisdom teeth extraction, which requires a general anaesthetic, would be performed as a day procedure. In Stephen's case that was just not possible because of the extremely high risk of him pulling at the wound site with dramatic consequences such as bleeding, premature suture removal, increased swelling at the wound site and infection. There was also the added problem of Stephen coping with severe pain from the teeth removal.

148. The devised plan was for Stephen to be given an anaesthetic, the teeth removed and Stephen to be kept in an induced coma state, intubated, ventilated and monitored in intensive care for a period of seven days. This was thought to be a reasonable time for pain and swelling to be reduced so that Stephen could cope with the post-operative features of wisdom teeth removal.

149. As it turned out, the extraction was not as complicated or severe as first thought. In the mean time, Stephen developed ventilator acquired pneumonia (VAP). Given that the trauma and swelling from the surgery was not so great and the development of VAP, Dr Lamberth decided that Stephen could go home after day three rather than day seven.

150. On 15 December 2003, Stephen was woken up in intensive care and extubated at approximately 1.00 pm he was then transported to the ambulance bay where he was kept

until he was able to walk to his van to be transported home. This occurred at approximately 6.00pm. During this time nurses and doctors from intensive care closely monitored him.

151. Clearly this was an extremely unorthodox treatment for someone who had been in ICU and ventilated for three days, however, it was thought by all at the planning meeting to be the safest way to deal with a difficult situation. It is clear from the evidence of some of the expert witnesses that they would not have embarked on such an ambitious plan. They gave credit to Dr Lamberth for showing his compassion and assuming the significant risk of such a plan. It is clear that Dr Lamberth had only Stephen's best interests at heart, together with the recognition that Stephen posed a significant risk to Dr Lamberth and to the hospital staff. Many others would have left Stephen to suffer from his malady.

152. The difficult decision to embark upon the planned treatment regime made by Dr Lamberth was due in part to the fact that there were no facilities that could cater for patients with Stephen's needs and challenging behaviour, save for perhaps in the custodial facilities of a prison. Clearly this would not have been appropriate for Stephen, even if had been an available option, because there was no reason for him to have been ever placed in a prison. .

153. If all had gone to plan, Stephen would have survived the operation and would have been cured of his symptoms and pain. It is unfortunate that Stephen developed a severe pneumonia, which was difficult if not impossible to detect clinically.

Stephen's Early Discharge

154. As noted above, according to the treatment plan, after his surgery on 12 December 2003, Stephen was to be intubated and sedated for seven days in ICU and carers would be in attendance 24 hours a day.

155. It is evident that Stephen's carers were agreeable to this procedure, although Mr Finnegan and Mr Burnet, who were present at the discharge of Stephen, were initially concerned about the early discharge and Mr Finnegan, in particular, seemed to have discussed the matter with Dr Lamberth.

156. I consider that the timing of a patient's discharge from hospital is a matter of medical opinion. However, the confusion surrounding the decision to discharge Stephen early could have been avoided if there was a prior consultation with carers and guardian, in a similar way as was done for setting up the treatment plan, particularly where the discharge decision was a modification to that plan. I note that Disability ACT carried out a Root Cause Analysis surrounding the death of Stephen and is implementing recommendations that there be a hospital admission planning meeting for a pre, intra and post operative/hospitalisation and discharge plan, and that hospital discharge planning must ensure consultation and arrangements to achieve optimal client health and safety.

157. I acknowledge that professional views in relation to medically treating a patient vary but I trust the matters raised above will be considered in relation to a treatment plan for a disability patient who is in a similar condition as Stephen in all ACT Hospitals.

Operative and post-operative care

158. In a report of an external review of Stephen's treatment and care at Calvary dated 16 February 2004, Dr Martin Rowley, the Director of the Intensive Care Service, John Hunter Hospital, Newcastle, NSW stated that in his view that Dr Lamberth and the anaesthetist acted properly in consulting over the plan to treat Stephen and communicated the plan to Stephen's guardian. He commented that "[h]owever,, in my opinion, the plan was put in place to manage the risk to staff, and was in effect merely postponing the time when Mr Moon would have to be woken up and returned home. This stage was always going to be most difficult, and the ICU admission plan possibly made this risk greater, by prolonging the period of anaesthetic and mechanical ventilatory support when this was unnecessary in the first place, in terms of Mr Moon's medical needs."

159. Dr Fratzia, in revisiting Dr Rowley's findings, was of the view that "the plan appeared to seek to minimise the risks to Mr Moon, Calvary staff and Calvary patients after having accepted the guardian's decision to proceed and Disability ACT's unwillingness to take him back immediately post-operatively."

160. Dr Rowley agreed that Stephen's operative and post-operative care in ICU seemed to have been exemplary. He also stated that change in the plan was in the right direction and that Dr Lamberth attempted to get Stephen into a safer situation by extubating him.

161. However, he regarded as highly unorthodox to discharge a patient in the ambulance bay into the care of non-medical disability workers, when the patient was extubated after three days of anaesthesia. He thought at a very minimum, provision of expert high level nursing support at home for an appropriate period should have been arranged.

162. Dr Fratzia considered that the decision-making with regard to extubation and discharge of Stephen was sound, and took into account –

- the fact that extubation at ICU was risky to staff and other patients,
- the fact that post sedation/paralysis observation and extubation took place in the ambulance immediately adjacent to the resuscitation area of the Emergency Department, and
- the need to have carers and his vehicle closely and in view to achieve familiarity for Stephen,

163. Dr Fratzia was of the opinion that a community nurse in attendance at the time of Stephen's cardiopulmonary arrest would not have made a difference in the outcome, and that ambulance would have been called anyway.

Scene of discharge

164. It appears that when Stephen was handed to the care of disability workers, little attention was paid to his privacy. That Stephen would soil himself at ambulance bay might not have been expected, however, it would have been respectful to him if this possibility was envisaged, or at least the possibility of some behavioural problems, and arrangements were made which would warrant an environment of safety for all at the scene and ensure privacy and dignity to the patient.

Wrong telephone number

165. The evidence disclosed that Ms Elaine Herlihy, a Registered Nurse employed to work with the LINK Team, had been given the responsibility for "post acute monitoring" of Stephen's condition after his discharge. However, she had been unable to contact the carers on the telephone number that she had obtained from a clinic diary and an Act Health Client Information & Referral Form.

166. The documents which Ms Herlihy consulted had an old telephone number for contacting Stephen's carers at his home. As a result, Ms Herlihy's attempt to contact Stephen's carers at his home after his discharge was unsuccessful. She then tried to contact one of the carers using a Disability House Co-ordinator's number and then dialled the phone number referred to in the recorded message for urgent queries, with no success.

167. Why Ms Herlihy was given an incorrect telephone number is somewhat mystifying in view of the fact that Calvary had been able to contact Mr Finnegan on 14 December 2003 to let him know that Stephen could be discharged on 15 December 2003.

168. I note that one of the recommendations made in the Root Cause Analysis carried out by Disability ACT, and which has been implemented, was that client details held by hospitals must be updated and checked prior to hospital admission.

169. I am satisfied that Ms Herlihy's inability to contact Stephen's carer played no role in his death and made no difference to the ultimate outcome.

Medical training of carers

170. It is evident that Stephen's carers had no medical training other than the first aid certification required for their employment as carers.

171. Although it will be rare that a person under care will present the range of difficulties surrounding Stephen's care, the prospect of such people being under care cannot be ruled out. In my view, it would be appropriate that Disability ACT putting into place arrangements to provide to relevant carers medical training appropriate to the needs of the clients for whom they are providing care.

General comments on the overall care and treatment of Stephen

172. I am satisfied that the plan developed for the extraction of Stephen's wisdom teeth reflected care and dedication to his welfare. The evidence demonstrates that Calvary was endeavouring to help Stephen, his carers and guardian, by compassionately undertaking his treatment, even though Calvary is not a hospital which could easily manage his challenging behaviour.

173. It is very clear that all those involved in Stephen's care at home and during his time in Calvary were deeply affected by his death. This is a reflection of their strong dedication to, and care for, Stephen and his welfare. On behalf of the community, I commend them for their compassion and care for Stephen and all their efforts in doing their best to provide him with appropriate and necessary treatment in order to improve the quality of his life. It is a credit to them, ACT Disability and Calvary.

174. I am satisfied that there was a clear benefit in conducting the procedure, and that the risk of harm from the procedure, while measurable, was relatively low and was far outweighed by the benefits that would be achieved for Stephen and his quality of life. The ultimate decision taken by Stephen's guardian to give consent to the treatment plan was reasonable and appropriate. The advice she was given by Stephen's carers and treating medical staff was also reasonable and appropriate.

175. I am satisfied that Stephen's death occurred despite the efforts of all concerned to look after him. I am also satisfied that, in spite of the fact that the discharge arrangements for Stephen were unorthodox, that is no evidence of any failure on the part of Calvary in its responsibility and care towards Stephen nor was it causative to his death. I am also satisfied there is no causal connection between the actions of any of the persons involved in his treatment and care and his death. I am completely satisfied that Stephen's tragic death occurred despite everything they did or could have done.

FORMAL FINDINGS

176. As required by s 52 of the Act, I find that:

- the deceased was Stephen Moon, born on [redacted], 1982;
- the deceased died at about 8.46pm on 15 December 2003 at16 [redacted] Street, Narrabundah in the Australian Capital Territory; and
- the deceased died as a result of cardiac arrest which was caused by acute bilateral pneumonia.

RECOMMENDATIONS

177. The events surrounding Stephen's tragic death reminds us that we must regularly monitor and update the care and medical treatment arrangements for people who are or will be in similar high risk situations as Stephen.

178. In the interests of the public health and safety, I recommend to the Attorney-General that:

- any proposal for surgical treatment for a person in high need of care and who poses a high risk of danger to themselves or others should involve careful planning between carers, Disability ACT, the client's guardians, family members and medical staff. The whole planning process should be recorded and include all steps and responsibilities for the patient's care, physical, mental and emotional, and for regular monitoring and treatment of any post-operative complications, major or minor, and cover the whole period from admission to hospital up to the point where successful post-surgical recovery has been achieved to the satisfaction of the treating medical staff and carers.
- any changes to pre-operative care plans involving such a patient should only be made after consultation with the relevant stakeholders;

- at the final stages of implementation of a pre-operative care plan involving such a patient representatives of the care and health systems should review it and agree on outcomes;

- Disability ACT should ensure that carers of high risk clients are given medical training appropriate for the needs such clients;

- a high risk patient with a tendency for challenging behaviour should have a high level of nursing care after discharge from hospital until such time as the treating medical staff and carers agree that the carers can manage the patient without such nursing care;

- both the carers and nurses of high risk clients should be responsible for ensuring that they have current contact particulars of each other and that each communication is recorded;

- consideration be given to the establishment a facility in the Australian Capital Territory for treating high risk patients, in circumstances similar Stephen's, where appropriate treatment can be given in a setting of safety for both medical staff, the patient and carers.

179. I note that some of these recommendations have been implemented by Disability ACT as a result of the Root Cause Analysis it conducted into Stephen's death. I also note that in March/April 2009 a decision was made to establish an Interdepartmental Working Group between ACT Health and the Department of Disability, Housing and Community Services to consider matters including the development and/or improvement of medical facilities to provide for cases such as Stephen's. I commend the steps that have been taken. Nevertheless, I consider it important that the recommendations be placed on record.

Thanks and condolences

180. I thank all Counsel appearing at the hearing, and their instructing solicitors, for their significant efforts in relation to an inquest which involved complex medical issues and the need to master a large amount of evidence which extended over many days.

181. Finally, I extend my condolences to and deepest sympathy to Stephen's relatives, guardian and carers for his untimely, unanticipated and tragic death,

P.G. Dingwall
Coroner