INQUIRY UNDER THE FATAL ACCIDENTS AND INQUIRY ACT INTO THE SUDDEN DEATH OF CHLOE McIVER

SHERIFFDOM OF NORTH STRATHCLYDE AT GREENOCK

FATAL ACCIDENT INQUIRY INTO THE DEATH OF

CHLOE McIVER

HELD AT GREENOCK ON 12, 13, 14, 15, 16, 21 and 23 SEPTEMBER 2005

DETERMINATION BY JOHN PEARSON HERALD, ESQUIRE,

SHERIFF OF NORTH STRATHCLYDE AT GREENOCK

This Inquiry was held in terms of Section 1(1)(b) of the Fatal Accidents and Sudden Deaths (Scotland) Act 1976 into the death of Chloe McIver. Assistant Procurator Fiscal, Mr Webster, acting in the public interest, led twenty-six witnesses.

Mr Carruthers, Advocate, appeared for Jane Watt and Terence McIver, the parents of Chloe McIver. Mrs McPhail, Solicitor, appeared on behalf of the Scottish Ambulance Service and Ms Murray, Solicitor, appeared on behalf of the National Health Service (Argyll & Clyde) and National Health Service (Greater Glasgow).

THE CIRCUMSTANCES AND BACKGROUND

In January 2004, Ms Jane Watt, then aged 40, was pregnant with her fourth child. Ms Watt had three previous children, now aged 22, 19 and 16. Ms Watt's previous three children had been born in the Rankin Maternity Unit in Greenock. At that time, the Rankin Unit was a Consultant-led unit. Due to Ms Watt's age at the time of her fourth pregnancy, she was assessed as high-risk. The decision was taken that the child should be born at the Consultant-led unit at Royal Alexandra Hospital, Paisley. The only reason Ms Watt was assessed as high-risk was because of her age. Ms Watt's pregnancy progressed with little difficulty until 13 January 2004. On that date, Ms Watt suffered some abdominal discomfort and backache and thought she was going into labour. Her baby was, in fact, due on 18 January 2004. Ms Watt was taken by ambulance from her home in Greenock to the Royal Alexandra Hospital, where she was seen and examined by Sister Crawford, an experienced midwife. Sister Crawford was of the view that Ms Watt was not in labour and Ms Watt was given advice regarding painkillers, hot packs and warm baths. Ms Watt indicated to Sister Crawford that she was very keen to deliver her baby in Greenock. Sister Crawford undertook to discuss this situation with her superiors and pointed out to Ms Watt that she was considered a high-risk mother because of her age, notwithstanding her three previous pregnancies.

On Sunday 18 January 2004 (the day when Ms Watt's baby was due), at approximately 10.25 am, Sister Crawford at the Royal Alexandra Hospital, Paisley, was in the labour suite at the hospital when she received a telephone call from Ms

Watt. Ms Watt stated that she was having contractions and believed that she was in labour. It was agreed that Ms Watt should be brought in to Paisley to have her baby. Sister Crawford arranged an ambulance to bring Ms Watt from Greenock to Paisley. The only reason Sister Crawford arranged for the ambulance was because neither Ms Watt nor her partner, Mr McIver, had transport available to travel to Paisley. There was no medical reason to arrange an ambulance. Sister Crawford contacted the ambulance control room and made the necessary arrangements. Arrangements were made at Paisley to receive Ms Watt. A short time later, Sister Crawford received a telephone call from Mr McIver, asking where the ambulance was. Sister Crawford again contacted the ambulance control room and was advised that the ambulance had, in fact, arrived at Ms Watt's house. Some time later that morning, Sister Crawford became concerned as the ambulance carrying Ms Watt had not arrived at Paisley. She again contacted the ambulance control room, to be advised that the ambulance had diverted to Inverclyde Royal Hospital in Greenock and that Ms Watt had been admitted to the midwife unit at that hospital.

When the ambulance arrived at Ms Watt's address in Caithness Road, Greenock, it was immediately clear to the ambulance technician, Ms Beaton, having discussed the recent history of Ms Watt, that the baby might be born imminently. Caithness Road is in an area of Greenock close to Inverclyde Royal Hospital. Ms Beaton, in consultation with her colleague, decided that as the ambulance on its way to Paisley would be virtually passing Inverclyde Royal Hospital, in view of Ms Watt's condition, it would be better to stop off at Inverclyde Royal Hospital and have Ms Watt examined by a midwife. If Ms Watt's condition had not been of such concern to Ms Beaton, the ambulance would have taken Ms Watt to Paisley, as previously arranged. The decision to consult a midwife at Inverclyde Royal Hospital was explained to Ms Watt and she agreed to this.

On arrival at Inverclyde Royal Hospital, two midwives, who had been alerted by the ambulance crew of the situation, examined Ms Watt in the ambulance in the presence of her partner, Mr McIver. This occurred at 11.35 am. The midwives formed the opinion that Ms Watt was fully dilated, her membranes were bulging and therefore delivery of the baby was imminent. In particular, they formed the opinion that there might not be sufficient time to have Ms Watt transferred to Paisley and decided to admit Ms Watt to the midwife unit in Inverclyde Royal Hospital. This was explained to Ms Watt and Mr McIver and they agreed to this suggestion. At approximately 12.30 pm, the midwives decided that to facilitate delivery, they would carry out an episiotomy. This procedure was again explained to Ms Watt and Mr McIver.

At approximately 12.37 pm, a baby girl, Chloe, was born to Ms Watt. The delivery was quick, which is not unusual in a fourth pregnancy. It was immediately apparent to the midwives assisting in the delivery that the umbilical cord was tightly wrapped around Chloe's shoulder and twice around her neck. In addition, the midwives observed thick meconium, which is evidence that the baby's bowels have opened as a result of a stressful incident in the womb. The presence of meconium alerts midwives to the fact that there could be problems at delivery. The midwife immediately cut and clamped the umbilical cord and transferred Chloe to a machine known as a Resuscitaire. This machine is a square, level platform with an overhead heater and an oxygen supply. It is a source of heat, light and oxygen to a distressed

baby. At birth, Chloe's colour was pale; she had no heart rate; she was not able to breathe independently; and she was "floppy". The midwife detected meconium in Chloe's throat and this was aspirated by a suction catheter. Some meconium came out in this process. The midwife, who was appropriately qualified and trained in resuscitation procedures, knew it was important to inflate Chloe's lungs. This was immediately done by a bag and mask system. The midwife managed to inflate Chloe's lungs and there was some cardiac output. However, it was apparent that Chloe was making no attempt to breathe on her own. The midwife was aware that it would be necessary for Chloe to be intubated. This involves the insertion of a tube into the baby's throat. Such a procedure can only be carried out by a doctor. An immediate call was put out to the duty anaesthetist. The anesthetist, Dr Larty, arrived in the midwifery unit at 12.45 pm. Dr Larty, an experienced anaesthetist, found Chloe to be "blue" and mottled and lifeless. However, there was a heartbeat. Dr Larty decided to resuscitate Chloe. Dr Larty used a laryngoscope to examine behind Chloe's tongue to the back of her mouth. Dr Larty found meconium in Chloe's throat. This meconium was sucked from the throat. Dr Larty then intubated Chloe by inserting a 2.5 mm endo-tracheal tube. As a result of this procedure, Chloe's condition improved. She became pink and her heart rate increased. Dr Larty also carried out a further procedure by inserting an umbilical catheter. He had been advised by the midwives that they had taken advice from a Consultant Paediatrician as to the necessity of giving Chloe some fluids. The catheter would be the method by which fluids or medication would be given to Chloe. In his evidence, Dr Larty confirmed that Chloe had never breathed spontaneously and always relied on artificial support.

The midwives were then aware that they had a very sick baby on their hands. They were uncertain as to how to deal with this situation, although they were aware that there was a neo-natal transfer team available to transport sick babies from outlying hospitals to a hospital where specialist assistance would be available. The midwives in Greenock contacted Royal Alexandra Hospital, Paisley, and were advised of the procedure for contacting the neo-natal transfer team. The midwives in Greenock thereafter contacted the neo-natal transfer team at 13.00 hours. The neo-natal transfer team responded to the call at 13.20 pm, advising that it would take approximately one hour for them to arrive at Inverclyde Royal Hospital. However, the co-ordinator of the neo-natal transfer team, Anne Marie Wilson, arrived independently of the team at 13.47 pm and took over resuscitation of Chloe from the midwives. The remaining members of the neo-natal transfer team arrived at 14.30. The team was led by Dr De Zeuw, who took over the responsibility for the resuscitation of Chloe. The intention of the neo-natal transfer team was to stabilise Chloe's condition to such an extent that she could be safely transferred to Yorkhill.

At 16.40 pm, there was a sudden deterioration in Chloe's condition. Chloe's heartbeat dropped - in fact, Dr De Zeuw could barely hear her heart. Dr De Zeuw decided to give Chloe adrenalin and also commenced with chest compressions. As a result, Chloe's heart rate improved. However, there were also signs that Chloe was "fitting". Her muscles were tense and this suggested to Dr De Zeuw that there had been damage to Chloe's brain.

After consulting with her Consultant at Yorkhill Hospital, Dr De Zeuw reluctantly reached a conclusion that it was inappropriate to continue intensive care on Chloe.

She was of the opinion that Chloe had suffered irreversible damage as a result of a severe hypoxic event, ie interruption of the oxygen supply to her body. Until the deterioration of Chloe at 16.40 pm, it had been the intention of the neo-natal transfer team to transfer Chloe to the Royal Alexandra Hospital. Arrangements had been made at the Royal Alexandra Hospital for Chloe to be received as a very sick baby. Dr De Zeuw, however, reached a decision that nothing further could be done to alter the prognosis of Chloe. Dr De Zeuw discussed the situation with Ms Watt and Mr McIver. In particular, she told Ms Watt and Mr McIver that Chloe was not going to survive and that intensive care was no longer appropriate. Dr De Zeuw had also formed the opinion that Chloe was not stable enough to be transferred. If an attempt was made at transfer, it would be likely that Chloe would die in the ambulance, outwith the presence of her mother and father. In addition to the problems with hypoxia, Dr De Zeuw had discovered that Chloe was suffering from acidosis, which is an excess of acid in the blood, suggesting that Chloe's organs had failed. Dr De Zeuw explained the situation to Ms Watt and Mr McIver. Quite understandably, Ms Watt and Mr McIver wished time to consider the whole situation. Chloe was left on minimal ventilation and again, matters were discussed with Ms Watt and Mr McIver. Ms Watt and Mr McIver were very upset at the situation which had arisen. It was again explained to Ms Watt and Mr McIver that it was the ventilator that was keeping Chloe alive and that the gasping breaths which were seen to be emanating from Chloe were reflex actions, occurring when the brain was damaged severely. After a period of time, Ms Watt and Mr McIver agreed that the ventilating of Chloe should be withdrawn, but asked that this be delayed so that members of their family could be present and, in particular, Chloe could be baptised by a priest. This was done. At 19.32 pm, the endo-tracheal tube was withdrawn with the consent of Ms Watt and Mr McIver. Chloe continued to "gasp", with frequent seizure activity.

The midwives who had been caring for Chloe since birth were due to come off duty at 19.45 pm. Mrs Peterson, a G-grade midwife, then took over the nursing care of Ms Watt and Chloe. On taking up duty, Mrs Peterson was advised of what had happened that afternoon. When Mrs Peterson took up duty, the neo-natal transfer team were still present and supervising the care of Chloe. Mrs Peterson was advised that Chloe was in terminal care, all treatment having been withdrawn. She regarded it as her duty to support Ms Watt and Mr McIver during the night and to make sure that Chloe was kept comfortable and clean. Chloe was continuing to "gasp". At 0100 hours, Mrs Peterson contacted the duty paediatrician at the Royal Alexandra Hospital to update him on Chloe's condition. Mrs Peterson was advised that there was nothing further that could be done. She continued to support Ms Watt and Mr McIver throughout the night. In particular, at the request of Ms Watt, she dressed Chloe. Mrs Peterson came off duty at 08.00 am. Chloe had not been seen by any doctors during the course of the night. At 9.20 am, it was found that Chloe was no longer gasping. Her rate of heartbeat had also fallen. A Consultant Paediatrician from Royal Alexandra Hospital, Dr Kelly, was present in Inverclyde Royal Hospital to do a Paediatric Clinic. He was contacted by the midwives on duty and examined Chloe. Dr Kelly confirmed Chloe's death at 10.10 am.

THE ANTE-NATAL CARE

The Consultant Obstetrician in charge of Ms Watt was Dr Laura Cassidy. Dr Cassidy has been a Consultant since 1989. Dr Cassidy, formerly the Consultant Obstetrician

and Gynaecologist in charge of what was known as the Rankin Unit at Inverclyde Royal Hospital, is now based at Royal Alexandra Hospital, Paisley, although outpatient gynaecological clinics are held at Inverclyde Royal Hospital.

Ms Watt was seen on five occasions as an outpatient during the period from 17 June 2003 to 15 January 2004. In particular, on 15 January 2004, Ms Watt was seen personally by Dr Cassidy. Dr Cassidy was satisfied that there were no problems with the pregnancy. Ms Watt was considered a high risk mother for no other reason than her age. Dr Cassidy was aware that Ms Watt had had three previous normal pregnancies. A detailed scan on Ms Watt had been carried out at 22 weeks of her pregnancy and there was no indication of any problems in respect of the health of Ms Watt's baby or herself. While Ms Watt had indicated a preference to have her baby delivered at Greenock, Dr Cassidy had explained to her the risk factors and that because of her age, it would be advisable for her baby to be delivered in a unit with all necessary support. Dr Cassidy was advised of the unfortunate circumstances surrounding Chloe's birth on 19 January 2004.

There was nothing arising from the ante-natal outpatient examinations of Ms Watt prior to the birth of Chloe to indicate there would be any problems with the birth of the baby.

THE ACTINGS OF THE SCOTTISH AMBULANCE SERVICE

When Ms Watt contacted Sister Crawford at the Royal Alexandria Hospital, Paisley, on the morning of 18 January 2004, to advise that she considered she was in labour, Sister Crawford arranged for an ambulance to pick up Ms Watt and Mr McIver to bring them to the Royal Alexandra Hospital, where Ms Watt was due to give birth. Sister Crawford contacted the Ambulance Control Room at 10.28 am and spoke to the controller, Mr Murphy. Mr Murphy was advised that Ms Watt was in labour and was to be transferred from Greenock to Paisley. It was made clear to Mr Murphy that the reason for the request for an ambulance was because Ms Watt and Mr McIver did not have transport available to travel to Paisley, and was not for medical reasons. In accordance with his procedures, Mr Murphy discussed with Sister Walker whether this was an "urgent" call or an "emergency" call. An "urgent" call meant that an ambulance would be sent within a specified time, whereas an "emergency" call meant that the first available ambulance would require to be sent. It was agreed that this was an "urgent" call. It was further agreed between Mr Murphy and Sister Crawford that an ambulance within an hour would be appropriate. At the time of the call from Sister Crawford, the Ambulance Service had three crews on duty in Greenock on that particular day. One crew was at Inverclyde Royal Hospital and at 10.30 am, the second crew was allocated to an outstanding call. It was the policy of the Ambulance Service to keep one crew available for emergency calls. At 10.58 am, one of the crews became available and was allocated to pick up Ms Watt and Mr McIver and transport them to Paisley. The ambulance allocated arrived at Ms Watt's house at 11.12 am and left her house at 11.15 am. The Control Room then received a message that the ambulance was diverting to Inverclyde Royal Hospital. It arrived at 11.20 am. The ambulance left Inverclyde Royal Hospital at 11.43 am, Ms Watt having been admitted to the hospital. Therefore, there was no further requirement to transfer her and Mr McIver to Paisley. The ambulance service, therefore, responded within the time agreed with Sister Crawford.

The ambulance allocated to Ms Watt was crewed by George McConnachie, an ambulance technician of 23 years' experience, and Adele Beaton, an ambulance technician of eight years' experience. Mr McConnachie was the driver of the ambulance. When the ambulance arrived at Ms Watt's address in Caithness Road, Greenock, Miss Beaton spoke to Ms Watt about her condition. While Ms Watt was able to walk to the ambulance, she told Miss Beaton that she had been bleeding and she thought that the baby was close to delivery. Miss Beaton discussed matters with Mr McConnachie. As the ambulance would be virtually passing Inverclyde Royal Hospital on its way to Paisley from Ms Watt's address, it was agreed that, in view of Ms Watt's condition, it would be safer to call in at Inverclyde Royal Hospital and have Ms Watt examined by a midwife there. By this time, Miss Beaton was recording contractions being suffered by Ms Watt at every three minutes. Miss Beaton was aware that this was Ms Watt's fourth baby and that delivery could be quick. In fact, there was a chance that delivery could take place in the ambulance. Miss Beaton explained to Ms Watt that in all these circumstances, she felt it better to call in at Inverclyde Royal Hospital. Ms Watt agreed with this. Mr McConnachie then radioed Inverclyde Royal Hospital and arranged for a midwife to be available to meet the ambulance at the hospital. While Miss Beaton was of the view that she would have been able to cope with the birth of Chloe in the ambulance, she felt that she was not as well trained as a midwife and that it was in the best interests of Ms Watt to have a midwife examine her.

When the ambulance reached Inverclyde Royal Hospital, two midwives entered the ambulance and examined Ms Watt. They decided that, as delivery of the baby was imminent, it would be better to admit Ms Watt to the delivery unit at Inverclyde Royal Hospital. Ms Watt agreed to this.

The decision made principally by Miss Beaton to have Ms Watt examined at Inverclyde Royal Hospital, and which resulted in the admission of Ms Watt to Inverclyde Royal Hospital was wholly appropriate in the circumstances.

THE ACTINGS OF THE MIDWIVES

The Community Midwife Unit at Inverclyde Royal Hospital was staffed by two midwives carrying out a twelve-hour shift. On Sunday 18 January 2004, the unit was staffed by Midwives Reaich and Robertson. They had commenced duty at 07.45 am. At approximately 11.15 am, they were advised that an ambulance, which had been sent to pick up Ms Watt to transport her to Royal Alexandra Hospital, Paisley, would be calling in at Inverclyde Royal Hospital as the ambulance technicians were concerned about Ms Watt's condition. At 11.35 am, Midwives Reaich and Robertson examined Ms Watt in the ambulance and came to the conclusion that Ms Watt was dilated and that birth was imminent. While they were aware that Ms Watt was assessed as a high risk mother, because of her age, they formed the conclusion that it would be better and safer if Ms Watt were admitted immediately to the midwifery unit at Inverclyde Royal Hospital, rather than continue on the ambulance journey to Paisley. It was clear from the evidence led before me that this was a correct decision by the midwives.

Prior to the delivery of Chloe the midwives, who were both very experienced, assisted Ms Watt. As Ms Watt was having some difficulty in effecting delivery, they

decided to carry out an episiotomy, a common procedure to facilitate delivery. Mrs Reaich was the principal midwife involved in the delivery. When Chloe's head appeared, it became obvious to Mrs Reaich that there were difficulties, as the umbilical cord was wrapped around Chloe's shoulder, and twice around her neck. In addition, Mrs Reaich noted the presence of meconium, an indication of stress caused to the baby prior to delivery. Chloe was delivered very quickly, ie the head and body came out very quickly. This is not unusual in the case of a mother who has had previous pregnancies. It was not possible for Mrs Reaich to deal with the problems concerning the umbilical cord while the baby was still in the birth tract, because of the quickness of delivery. As soon as Chloe was born, Mrs Reaich cut and clamped the umbilical cord. It was immediately apparent to both Mrs Reaich and Mrs Robertson that Chloe was in considerable distress. Her foetal heartbeat was slow and she was not breathing independently. Mrs Reaich and Mrs Robertson had both undergone the Newborn Life Support (NLS) course operated by the Resuscitation Council and immediately put their training into effect, commencing to resuscitate Chloe. There was a third midwife present, Mrs Shirley Roach, who happened to be in the delivery unit in connection with other duties. She assisted Midwives Reaich and Robertson by preparing the Resuscitaire equipment and dealing with phone calls, etc. When it became apparent to the midwives that their attempts at resuscitation of Chloe by the bag and mask method was not sufficient, it was agreed that an anesthetist should be called to intubate Chloe. This was done. Thereafter, a decision was taken by the midwives to involve the Neo-natal Transfer Team to arrange the transfer of Chloe from the unit to a hospital where Chloe would obtain the appropriate specialist treatment. The Neo-natal Team were contacted and, upon their arrival, the Neo-natal Team took over responsibility of looking after Chloe.

Midwives Reaich, Robertson and Roach remained on duty in the Community Midwife Unit until well after 8.00 pm that evening. At 19.45 pm, Midwives Peterson and McFarlane came on duty and took over the care of Ms Watt and Chloe.

From the date of the delivery of Chloe until the time of her death the following morning, the midwives involved in the care of both Ms Watt and Chloe, exhibited a standard of care totally consistent with their duties and training as midwives. In particular, I am satisfied from the evidence led before me that during the whole period of time the midwives were involved with Ms Watt and Chloe, they kept both Ms Watt and Mr McIver advised of the situation involving Chloe and the difficulties she was experiencing. I am also satisfied that Midwives Reaich and Robertson carried out the appropriate resuscitation procedure when Chloe was first born. They were perfectly correct in immediately contacting the anaesthetist and arranging for the transfer of Chloe by a specialist team. I agree with the opinion expressed by Consultant Neonatologist, Dr Jonathon Coutts, that the initial management of Chloe was the best that could be given in a unit with no paediatric staff present. I am satisfied that there can be no criticism made of the actings of the midwifery staff on Sunday 18 January 2004, either prior to, at or after the birth of Chloe.

THE ACTINGS OF THE NEO-NATAL TRANSFER TEAM

The Scottish Executive has funded the development of a national Neo-natal Transport Service, one of these services being based in the west of Scotland at the

Princess Royal Maternity Hospital, Glasgow. The remit of the transport team is to safely move babies from one neo-natal unit to another using dedicated personnel and equipment. It is not a "crash team". The team has a call-out time period of one hour. During this time, a trained doctor, nurse and ambulance driver assemble and man a dedicated neo-natal transport ambulance.

The team are contacted by the hospital requesting a transfer and the team travels to that hospital to stabilise the baby and arrange for transfer to the receiving hospital.

On Sunday 18 January 2004, Dr De Zeuw was on duty as the lead doctor of the West of Scotland Neo-natal Transfer Team. She was contacted at 13.10 pm about the need to transfer Chloe from Greenock to Royal Alexandra Hospital, Paisley, where an intensive care bed was available for Chloe. Dr De Zeuw immediately contacted the other members of her team and Inverclyde Royal Hospital was advised that the team would be there in approximately one hour. However, on this particular Sunday afternoon, Dr De Zeuw and Anne Marie Wilson, the Neo-natal Transport co-ordinator, had just returned from a transfer trip to Birmingham. Anne Marie Wilson is an advanced neo-natal nurse practitioner. Dr De Zeuw contacted Anne Marie Wilson to advise her of the call from Inverclyde Royal Hospital. Anne Marie Wilson was, in fact, on her way from the airport to her home in Paisley when she received the call from Dr De Zeuw. She immediately suggested that she should make her own way independently to Inverclyde Royal Hospital. She was aware that she would arrive there some time before the neo-natal transfer ambulance could arrive in Greenock. Dr De Zeuw readily agreed to this suggestion.

Anne Marie Wilson arrived at Inverclyde Royal Hospital at 13.47 pm and took over the care of Chloe from that point. Dr De Zeuw, along with the remainder of the Neo-natal Transfer Team, arrived at 14.30 pm. Dr De Zeuw thereafter took responsibility for the care of Chloe. Dr De Zeuw supervised the care of Chloe, as detailed in her detailed clinical notes (Crown production 1, pages 38 - 44). Chloe remained intubated until there was a sudden deterioration in Chloe's condition at 16.40 pm. Prior to this, Dr De Zeuw had been very concerned about Chloe's condition. She was only two-and-a-half hours old and there had been no respiratory effort on her own. In addition, Dr De Zeuw had seen jerking movements just after her arrival at Inverclyde Royal Hospital, which were indications of fits or seizures. Dr De Zeuw immediately ascertained that Chloe was not at that time fit to be transferred and would require stabilisation. Chloe was given Phenobarbitone to ameliorate her seizures. Dr De Zeuw was concerned about the condition of Chloe and telephoned Dr Simpson, Consultant Paediatrician on duty at Yorkhill, Dr Simpson and Dr De Zeuw had worked together in the past. Dr De Zeuw advised Dr Simpson of Chloe's condition. Dr Simpson confirmed that the steps being taken by Dr De Zeuw to stabilise Chloe were correct. Dr De Zeuw also explained on more than one occasion to Ms Watt and Mr McIver her concern as to the condition of Chloe and what was being done to assist her. When Chloe's condition deteriorated at 16.40 pm, Dr De Zeuw could barely discern any heartbeat. She immediately administered adrenalin and started chest compressions. Chloe's foetal heart rate improved because of the effect of the drugs. There were further signs of "fitting" - the muscles were tense, suggesting damage to her brain. As before, Chloe was not breathing on her own.

Dr De Zeuw was so concerned about Chloe's condition that she again contacted Dr Simpson. She was advised that Dr Simpson had also spoken to Dr Rae, Consultant Paediatrician at Royal Alexandra Hospital, who was expecting to receive Chloe. It was agreed between Dr De Zeuw, Dr Simpson and Dr Rae that it was inappropriate to continue Chloe's intensive care. Both Consultants and Dr De Zeuw were satisfied that irreversible damage had been done to Chloe as a result of a severe hypoxic event. Dr De Zeuw then spoke to Ms Watt and Mr McIver to advise them of the situation. In particular, she advised them that nothing further could be done to alter Chloe's prognosis. Dr De Zeuw carefully discussed with Ms Watt and Mr McIver what would happen if the intensive care was withdrawn. Dr De Zeuw formed the opinion that Chloe was not stable enough to be transferred, as she was going to die. She was satisfied that Chloe had never, at any stage, been able to breath spontaneously. Ms Watt and Mr McIver, quite understandably, wished time to consider the situation and Dr De Zeuw delayed withdrawing the ventilation tube. However, eventually Ms Watt and Mr McIver agreed that it could be withdrawn. This was done at 19.32 pm. Dr De Zeuw and the team remained in the hospital for approximately one hour thereafter.

From the evidence I have heard in this Inquiry, I am satisfied that the actings of the Neo-natal Transfer Team and, in particular, Dr De Zeuw and Anne Marie Wilson, were appropriate in the circumstances and could not be criticised. Dr De Zeuw was a Specialist Registrar in Paediatrics and had been involved with the Neo-natal Transfer Team for over a year. Anne Marie Wilson, a highly qualified neo-natal nurse practitioner, had many years' experience. They were faced with a situation where a Consultant Paediatrician was not present at Inverclyde Royal Hospital and I was satisfied the consultations between Dr De Zeuw and Dr Simpson were appropriate in the circumstances. It was clear from the evidence of both Dr De Zeuw and Dr Simpson that they had worked together in the past. Dr Simpson, in particular, was confident in the ability of Dr De Zeuw, and was confident that the information being passed to her was correct and appropriate. The decision to withdraw intensive support from Chloe was correct in the circumstances and that decision was reached after proper consultation between an experienced doctor, Dr De Zeuw, an experienced Consultant, Dr Simpson, and the Consultant Paediatrician at Royal Alexandra Hospital, Dr Rae. In particular, Dr De Zeuw was correct in deciding it was not appropriate to transfer Chloe from Inverclyde Royal Hospital to Royal Alexandra Hospital. Such a transfer could only have taken place in the dedicated ambulance available to the Neo-natal Transfer Team. There would have been no space available in said ambulance for either Ms Watt or Mr McIver. The prognosis of Chloe was such that if it had been decided to transfer Chloe to Paisley, it was likely that Chloe would have died *en route* outwith the presence of her mother and father. I am also satisfied that the decision to withdraw intensive care was discussed with Ms Watt and Mr McIver and was appropriate in all the circumstances. In fact, the withdrawal of care while in Inverclyde Royal Hospital made it possible for Ms Watt and Mr McIver to hold Chloe while she was still alive.

THE CAUSE OF DEATH

It is clear from the full and detailed *post mortem* report of Dr Howatson (Crown production 1.2) that Chloe suffered hypoxia during the *intra-partum* (delivery) period. In effect, Chloe was starved of oxygen during the delivery process. While it would

appear that this might be due to the presence of the cord around Chloe's neck, in fact Chloe was not at risk until labour actually started. Evidence of the midwives was that Chloe's birth was very quick, which was not unusual in a fourth pregnancy. It would appear that as Chloe passed down the birth canal, head first, the umbilical cord would be stretched and the vascular flow compromised such as to starve the baby's brain and other organs of oxygen. This would result in Chloe being born in a poor condition, with a slow heart rate and breathing problems. Chloe was severely compromised before birth. There was meconium staining and she was born with no signs of life. Chloe suffered a very significant hypoxic event and I am satisfied from the evidence led before me that this event occurred at birth. The presence of meconium in the trachea is consistent with a baby who has a significant period of low oxygen levels (hypoxia) at birth.

TERMINAL CARE

After the decision to withdraw intensive care from Chloe, a decision correctly taken and with the consent of Ms Watt and Mr McIver, the care of Chloe was managed by Midwife Peterson, who considered it appropriate to make Chloe as comfortable as possible and to give Ms Watt and Mr McIver as much time with Chloe as her condition would permit. Midwife Peterson did contact the on-duty Paediatrician at Royal Alexandra Hospital during the course of the night and was advised that, other than making Chloe comfortable, other treatment was unnecessary. It became clear during the course of the evidence that the health professionals did not expect Chloe to survive as long as she did, although it is not possible to forecast how long a baby might survive after intensive care has been withdrawn. It should be noted that at no time was care withdrawn from Chloe - only intensive care.

Ms Watt and Mr McIver had no contact with a senior clinician from the time Ms Watt was admitted to Inverclyde Royal Hospital on the morning of Sunday 18 January 2004 until the morning of Monday 19 January 2004. Contact with a senior clinician on 19 January 2004 only arose because the presence of such a senior clinician was necessary to certify death. Mr Brian Kelly, a Consultant Paediatrician at Royal Alexandria Hospital, happened to be in Inverclyde Royal Hospital on the morning of 19 January 2004. Mr Kelly had only returned that day from holiday, had no information about what had occurred in the Midwife Unit, and was, in fact, in Inverclyde Royal Hospital that morning to take an outpatients clinic. Mr Kelly was, in fact, reading his notes for the clinic when he was contacted by the Midwifery Unit and told there was a dying baby in the unit. It is to Mr Kelly's credit that he immediately proceeded to the unit; ascertained what had happened in the past twenty-four hours, speaking to the midwives and looking at the case notes; and, in particular, speaking to Ms Watt and Mr McIver. Mr Kelly indicated to Ms Watt and Mr McIver that he wished to examine Chloe and even asked Ms Watt and Mr McIver if they wished to be present during that examination. Ms Watt declined, but Mr McIver agreed that he wished to be present. Mr Kelly then examined Chloe. He found that Chloe had no heart rate, no reflexes and no respiratory effort. He found that life was extinct at approximately 10.10 am.

Mr Kelly then talked to Ms Watt and Mr McIver about the loss of Chloe, and went over the recovery process with them. He gave them an opportunity to hold Chloe. Neither Ms Watt nor Mr McIver took up this opportunity. Mr McIver was angry at what

had happened and Mr Kelly stressed to Ms Watt and Mr McIver that they should not allow this distressing incident to drive them apart, but they should support each other. Mr McIver was asking a number of questions and was upset and agitated, which is quite understandable. Mr Kelly gave him notepaper on which to write down his questions, in case he forgot them in the future.

Mr Kelly met with Ms Watt and Mr McIver later on the same day. By that time, Mr McIver was asking about specific issues, including the allegation that there was no oxygen in the Resuscitaire and that the wrong endo-tracheal tube had been inserted by the anesthetist. Mr Kelly replied that until he investigated the matter, he could not answer the

specific questions. This, however, did not satisfy Mr McIver, who accused Mr Kelly of trying to dodge the issue, and trying to cover up. He advised Ms Watt and Mr McIver that they would have the full opportunity of airing all their concerns.

Mr Kelly struck me as a caring professional, who found himself in an unexpected and difficult situation.

It is, however, a matter of some concern, notwithstanding the fact that Chloe survived for over twelve hours after intensive care was removed, that no attempt was made to have a senior clinician visit Chloe, examine Chloe or provide support to Ms Watt and Mr McIver.

THE CONCERNS OF MS WATT AND MR McIVER

Both Ms Watt and Mr McIver gave evidence to the Inquiry. They gave their evidence in a dignified and controlled manner. I fully accept that giving evidence in an Inquiry of this nature must have been very difficult and distressing to them. In the course of their evidence, however, they indicated certain concerns and complaints about the manner in which they had been treated and the treatment given in the Community Midwife Unit. I think it is only fair to all concerned that I should comment on these concerns and complaints in detail.

Mr McIver maintained that Ms Watt spoke to Sister Crawford at Royal Alexandra Hospital, Paisley, and requested an ambulance at approximately 9.45 am on Sunday 18 January 2004. Sister Crawford indicated in her evidence that she was telephoned at approximately 10.25 am. She stated that she immediately contacted Ambulance Control and this is confirmed by the fact that the ambulance controller took the call from Sister Crawford at 10.28 am (production 3.2.2). I am satisfied that there was no delay in Sister Crawford contacting the ambulance.

Mr McIver commented that when Ms Watt entered the delivery room at the Community Midwife Unit there was "no equipment" in the room. It is certainly the case that the midwife unit is not as well equipped as a normal delivery room, but I was satisfied that equipment known as a Resuscitaire was present in the room.

Mr McIver also commented that the oxygen bottle on the Resuscitaire was empty. However, I was satisfied from the evidence led before me that all the equipment in the delivery room had been checked and, in fact, a spare oxygen bottle had been

requested from a porter, in case Chloe was transported in the Resuscitaire to another hospital.

There was also a complaint from Mr McIver that when the Neo-natal Transfer Team arrived at the hospital, Dr De Zeuw complained that the wrong size of endo-tracheal tube had been inserted into Chloe to help her breath. Dr Larty had, in fact, inserted a tube of 2.5 mm size and it was certainly the case that Dr De Zeuw felt it would be better for Chloe that a larger size tube be inserted, ie 3.5 mm. Dr De Zeuw, however, in her evidence clearly stated there was nothing wrong in inserting a 2.5 mm tube and the only reason she had changed the tube was that she was concerned that there might be the presence of some meconium in the trachea and she felt a larger-diameter tube might make the seal in the trachea tighter, thus ventilating Chloe better.

Mr McIver also commented that he had been asked to go to another ward to bring an extension cable for a machine. This was accepted by the midwives, but it was pointed out, and I accepted this evidence, that the extension cable was required because the Neo-natal Transfer Team had brought in other machinery to the delivery room.

Ms Watt, as I have indicated above, was quite clearly distressed in giving her evidence and this is perfectly understandable in these circumstances. She did, however, say in her evidence that the care she received before the birth of Chloe was fine. She commented, however, that the care after the birth of Chloe was bad. She complained about the way the care had been handled and, in particular, stated, "They never gave my baby a chance". I regret that I have to say that I do not agree with that statement by Ms Watt. From the evidence led before me I am satisfied that the midwives, Dr De Zeuw and the Neo-natal Transfer Team did everything they possibly could to assist Chloe. It was only decided to remove intensive care from Chloe when it was quite clear to Dr De Zeuw and Consultant Paediatricians she contacted that it was not in the best interests of Chloe to continue to administer intensive care. They had, bluntly, reached a position where they could do no more for Chloe and, very reluctantly, having discussed the matter with Ms Watt and Mr McIver, decided to withdraw intensive care.

THE OPINION EVIDENCE

Mr Webster, the Assistant Procurator Fiscal, in the public interest, led opinion evidence from Dr A G Howatson, Consultant Paediatric and Peri-natal Pathologist, Royal Hospital for Sick Children, Glasgow; Dr Jonathon Coutts, Consultant Neonatologist, Royal Hospital for Sick Children, Glasgow; and from Dr Kevin Hanretty, Consultant Obstetrician, Queen Mother Hospital, Glasgow. In addition, reference was made to the report by Dr Norman Smith, Consultant Obstetrician, Aberdeen Maternity Hospital. Dr Smith did not give evidence, but his report was lodged with the Inquiry (production D.1).

Dr Howatson spoke to his very detailed report (production C.1.2) and, in particular, went through the findings of his *post mortem* examination. Dr Howatson expressed his opinion as to the mechanism of the death of Chloe and agreed with the reasons for the death of Chloe as detailed in the death certificate.

Dr Jonathon Coutts spoke to his report (production C.1.4) and, in particular, he expressed his opinions as to the actions of the midwives, his review of the *post mortem* results and his comments as to the actions of the Neo-natal Transfer Team. His conclusion was that Chloe suffered severe brain damage before or during birth; that no treatment following birth would have prevented this; that the transport team provided appropriate care; that moving Chloe to another hospital would not have prevented her poor outcome; and, in particular, moving Chloe may have meant that she died away from Ms Watt and Mr McIver.

Dr Hanretty spoke to the report (production C.1.3) and his conclusion was that Ms Watt had received appropriate care, as might be expected for a woman in her situation. In particular, he was of the view that it was unlikely that if Ms Watt had been transferred to Paisley, that the outcome would have been in any way different.

Dr Smith, in his report, expressed the opinion that Chloe was pre-destined to be delivered in poor condition. He went further to state that Ms Watt had a low risk pregnancy which suffered an unexpected event. Such an event was unpredictable and could occur in any pregnancy. He also went on to state that it was highly unlikely that the outcome would have been different, had Chloe been delivered in a consultant-led maternity unit. He further agreed with the actions taken by the ambulance paramedics and the midwives as appropriate. In particular, however, he expressed the opinion that having examined the foetal heart rate tracing, there was no evidence to show that the foetus was in distress. There was no such evidence of this when Ms Watt was examined on 13 January 2004. The problems with the umbilical cord would only be detected after birth.

The expert evidence tendered in this Inquiry was not to any great extent tested. It was, therefore, accepted by me.

THE PROVISION OF MATERNITY SERVICES IN INVERCLYDE

The untimely death of Chloe and its circumstances have focused attention on the withdrawal and downgrading of maternity services in Inverclyde and also in the Vale of Leven area. As a result, during the course of this Inquiry, a considerable amount of evidence has been addressed to decisions of Argyll & Clyde Health Board in this respect. The main evidence given regarding this particular aspect of the Inquiry was given by Miss Catherine McGillvray, the Director of Nursing at Argyll & Clyde Health Board. However, the evidence of Dr Cassidy and Dr Rae was also helpful.

The background to the review of maternity services in the Inverclyde area commenced as the result of a request from the Scottish Executive to local Health Boards to review the provision of maternity services. The Argyll & Clyde area had carried out their review in late 2002 and presented a report to the Board in July 2003. There were five options in that report, but the preferred option, which was eventually taken up, was that the Consultant-led maternity services should be centralised in the Royal Alexandra Hospital, Paisley.

Prior to that time, there had been a Consultant-led unit at Inverclyde Royal Hospital, known as the Rankin Memorial Unit. This unit had paediatricians, obstetricians and gynaecologists on site. Dr Cassidy**,** who had been a Consultant Obstetrician and

Gynaecologist with Argyll & Clyde Health Board since 1989, and had been mainly based in the Rankin Unit, described the Rankin Unit as, "an effective, successful, friendly, well-organised unit to deliver babies".

The decision by the Health Board to centralise the Consultant-led maternity services at Royal Alexandra Hospital was approved by the Minister for Health. As a result, the community midwife unit at Inverclyde Royal Hospital was set up as from October 2003, while Consultant-led maternity services were centralised at Royal Alexandra Hospital. The community midwife unit is continually staffed by two midwives on twelve-hour shifts. However, the community midwife unit has no direct access on site to consultant paediatricians, gynaecologists and obstetricians out of normal working hours. During normal working hours, a consultant paediatrician, gynaecologist or obstetrician may be present in Inverclyde Royal Hospital to carry out outpatient clinics. However, after 5 pm and at weekends, this would not be the case. Midwives in the community midwife unit could only access advice from senior clinicians by telephone. This was a fundamental change in the maternity services available to expectant mothers in the Inverclyde and Vale of Leven areas. It is within judicial knowledge that this fundamental change has caused considerable concern to residents in these areas.

In support of the decision of the Board to effectively downgrade maternity services in Inverclyde and Vale of Leven, Dr Cassidy pointed out that in the Inverclyde area the birth rate was falling. Paediatricians had serious difficulties in staffing a Special Care Baby Unit and it was becoming increasingly difficult to provide an efficient and effective service on three different sites, ie Paisley, Greenock and Vale of Leven. The situation was complicated by the general fall in population; European legislation on working time; legislation on junior doctors' hours; and it became increasingly clear that doctors and midwives were not able to provide a 24-hour care service. It was therefore decided that a full maternity service at Greenock and Vale of Leven would not be provided and it was decided to set up a community midwife unit. The Board considered it essential that expectant mothers in the Inverclyde and Vale of Leven areas should have a choice as to where they gave birth. It was stressed, however, that at an early stage in the pregnancy assessment would be carried out as to whether there was any risk attached to giving birth in the community midwife unit, where there was no direct access to senior clinicians. If any complications arose during a birth at the community midwife unit, the mother would immediately be transferred to Royal Alexandra Hospital, Paisley. However, generally the midwives on duty at the unit managed the care of both mother and baby and, if necessary, obtained appropriate advice by telephone from the consultants at Royal Alexandra Hospital. Low risk mothers could also decide to have their baby born at Paisley.

Mrs McGillvray gave evidence to the Inquiry that in 2000 / 2001 when the Rankin Unit was in operation and was a Consultant-led unit, 984 babies were born in the unit. When the community midwife unit was planned, it was anticipated that this number would drop to 20 to 25 *per cent* of that total, or between 197 and 246 babies every year. In fact, in the first 23 months of the community midwife unit's existence, there have been 167 births, or 87 per year. This represents 7.26 births per month. The community midwife unit has two midwives on duty, 24 hours per day, seven days per week. There was evidence before the Inquiry that there were around sixteen midwives allocated to the unit. The low rate of births effectively means that

for long periods of time, midwives in the unit are not involved in the care and delivery of new babies. This must surely give rise to concern over the future existence of the community midwife unit. While there may be concerns about downgrading of the unit from a Consultant-led unit to a midwife-led unit, it is surely better for the people of Inverclyde and Vale of Leven to have a midwife unit rather than no unit at all. It is difficult to avoid the conclusion that expectant mothers, even those assessed as low risk, are cognisant of the fact that specialist facilities and support is not available at Greenock or at Vale of Leven at the community midwife units and are therefore deciding, as they are quite entitled to do, to bypass the community midwife unit and have their babies in the Consultant-led unit at Royal Alexandra Hospital, Paisley, just in case there are any complications with the pregnancy and the birth of their child. It is difficult to avoid the conclusion that expectant mothers in these two areas are receiving a second-class service in comparison with similar mothers in the Paisley area. Unfortunately, the unforeseen circumstances of the death of Chloe have crystallised the concern and fears of the residents of Inverclyde and Vale of Leven, following upon the downgrading of their maternity services. I wish to stress, however, that the downgrading of maternity services in the Inverclyde area did not contribute in any way to the untimely death of Chloe.

SUBMISSIONS

In his submissions at the conclusion of the evidence in the Inquiry, Mr Webster, for the Crown and in the public interest, submitted to me that I could make formal findings as to where and when the death took place, and the cause of death. With reference to the question of reasonable precautions, he reminded me of the evidence in criticism of early aspects of the treatment, but also reminded me of the evidence of Dr Hanretty and Dr Cassidy. In particular, he reminded me of the evidence of Dr Coutts, to the effect that even if Chloe had been born in a Consultant-led unit, the outcome would have been no different. He stated that the decision to take Ms Watt to Inverclyde Royal Hospital was wholly appropriate in the circumstances. He also submitted that the actions of the ambulance service had shown that there was no evidence of any delay that could have affected the outcome. As far as the quality of care was concerned, he again reminded me of the evidence of Dr Hanretty and Dr Coutts, and also the terms of the *post mortem* report. With reference to the question of withdrawal of intensive care, he reminded me of the evidence of Dr Simpson and Dr De Zeuw. In particular, he reminded me of the evidence of Dr Simpson to the effect that all Chloe's organs had been profoundly damaged, and moving her to another hospital was not going to alter the outcome. As far as the controversy concerning the fact that Chloe was born in a community midwife unit was concerned, he accepted that there had been no specialist on site. This had to be compared with the situation prior to October 2003, when there was a Consultant-led unit, known as the Rankin Unit. He reminded me, however, of the views of the medical witnesses and submitted that even if Chloe had been born in a Consultant-led unit, the outcome would not have been different.

Mr Carruthers, on behalf of Ms Watt and Mr McIver, prefaced his remarks by reminding me that the situation in which Ms Watt and Mr McIver found themselves was one that only parents could understand. Mr Carruthers went over the terms of a written submission he had prepared. He agreed that the decision by the ambulance staff to seek the advice of midwives at Inverclyde Royal Hospital was proper and

appropriate; that the decision to admit to Inverclyde Royal Hospital was appropriate; that the examination of Ms Watt on 13 January had indicated that both mother and baby were well, and baby was not distressed; that up until the membranes were broken and Chloe's head appeared, there was nothing to indicate the nature of stress. On behalf of the family, he accepted that the midwifery care and treatment provided to Ms Watt and Chloe was appropriate and correct in all the circumstances. He submitted that this was, "a truly unforeseeable accident". He accepted that the resuscitation techniques employed were the correct ones; that they were carried out efficiently and in terms of the guidelines. He went over the circumstances of the involvement of the Neo-natal Transfer Team. He accepted that Chloe had been properly stabilised. He accepted that during the unfortunate circumstances of the Sunday afternoon that Ms Watt and Mr McIver had been updated by Dr De Zeuw as to Chloe's progress. In particular, he accepted that the withdrawal of intensive treatment had been discussed with them and correctly delayed to allow Chloe to be visited by members of their family and for Chloe to be Christened. Mr Carruthers also accepted that the actings of Dr Larty, the anaesthetist, were appropriate.

Mr Carruthers, however, directed his criticism at the status of maternity services in Inverclyde. He reminded me of the history of the downgrading of the unit from Consultant-led to midwife-led. He submitted that the choice offered by Inverclyde may be considered to be no choice at all. If mothers wanted a properly resourced maternity unit, they would have to go to Paisley or Glasgow. He pointed out that if anything goes wrong with the birth at Inverclyde Royal Hospital and the baby needs care, then the baby would require to be taken to Paisley, in any event. He submitted that I should make a determination in respect of the facts which are relevant to the circumstances of death, dealing with the downgrading of maternity services in Inverclyde and the effect and possible dangers as a result of that decision. He also criticised the fact that there had been little contact between the Health Board and the parents since the unfortunate death of Chloe. A review had been carried out by the Health Board, but the results of that review had not been intimated to Ms Watt or Mr McIver. He submitted the Health Board had failed to properly engage and inform parents who had lost a baby in these tragic circumstances.

Mrs McPhail, on behalf of the Scottish Ambulance Service, stated that there were no determinations which should be made in respect of her clients. She went over the evidence that had been heard about the calling out of the ambulance and the productions which had been lodged, showing the time of call-out and time of arrival of the ambulance. She submitted there was no question of delay in this present case. She also supported the view that the decision by the ambulance technicians to take Ms Watt to Inverclyde Royal Hospital, rather than to transport her to Royal Alexandra Hospital, as originally arranged, as appropriate and correct in the circumstances. Further, she submitted that no criticism should be directed at the Scottish Ambulance Service.

Ms Murray, on behalf of Argyll & Clyde Health Board and Greater Glasgow Health Board, went over the evidence regarding the cause of death and the mechanism of death. She stated that as far as Section 6(1)(d) of the Act was concerned, the Court had only required to consider events prior to the birth of Chloe. She drew my attention to the terms of the internal review carried out by the Health Board following this tragic incident. She submitted that the actings of both Health Boards were

appropriate in all the circumstances. She submitted that the fact that Chloe had been born in a midwife-led unit, as against a Consultant-led unit, would not have made any difference to the care of Chloe in the terminal phase. Finally, she advised me that Argyll & Clyde Health Board had taken the matter of Chloe's death very seriously.

THE DETERMINATION

In terms of Section 6(1)(a) and 6(1)(b) of the Fatal Accidents and Sudden Deaths (Scotland) Act 1976, I determined that:

- At 1010 hours on Monday 19 January 2004, Chloe McIver, whose date of birth was 18 January 2004, died within Inverclyde Royal Hospital, Greenock.
- The cause of death was (a) *intra partum* asphyxia and (b) cord around the neck x 2.
- In terms of Section 6(1)(c) of the Fatal Accidents and Sudden Deaths (Scotland) Act 1976, I have determined that there were no reasonable precautions which could have been taken whereby the death and any accident resulting in the death might have been avoided.
- In terms of Section 6(1)(d) of the Fatal Accidents and Sudden Deaths (Scotland) Act 1976, I have determined that there was no defect in any system of working which contributed to the death. It is quite clear from the evidence led before this Inquiry that even if Chloe had been born in a Consultant-led unit, she was so severely compromised that it was unlikely that the outcome would have been any different. No defect in the system of working operated by the midwives, ambulance service, the neo-natal team nor the Consultants contributed to the death of Chloe.
- With reference to Section 6(1)(e) of the Fatal Accidents and Sudden Deaths (Scotland) Act 1976, I have made the following determination in respect of other facts which are relevant to the circumstances of the death.
- It is a matter of concern that during the period from admission to the community midwife unit and the death of Chloe, a period of approximately 22 hours, Chloe was not examined, nor were Ms Watt and Mr McIver spoken to by a senior clinician from Argyll & Clyde Health Board. The Consultant Paediatrician on duty that Sunday afternoon, Dr Rae, was aware of the serious condition of Chloe, having been consulted by Dr Simpson, following upon consultations from Dr De Zeuw. The Consultant Paediatrician on duty overnight was also aware of the situation, having been contacted by the midwife on duty at Inverclyde Royal Hospital. It is particularly surprising that no attempt was made to make personal contact with the parents, notwithstanding that after the removal of intensive care from Chloe, she survived for an unexpectedly long period of time. Ms Watt and Mr McIver were surely entitled, at the very least, to be comforted and supported by a senior clinician during this period of time. The Health Board, therefore, should review its procedures in this regard. It is to the credit of Dr Kelly, in that his involvement with Ms Watt and Mr McIver was unexpected and unplanned, that he reacted and dealt with Ms Watt and Mr McIver in the manner in which he did.

(b)There was a conflict in evidence between the evidence of Dr Rae, a Consultant Paediatrician at Royal Alexandra Hospital, and the evidence of Mrs McGillvray, the

Director of Nursing, as to whether in similar circumstances, a Consultant Paediatrician would be sent to the community midwife unit to assist midwives. Dr Rae clearly indicated in her evidence that while there may be difficulties with sufficient staff, if a Consultant Paediatrician was available, he or she could immediately travel to Inverclyde or Vale of Leven to assist. This, however, was denied by Mrs McGillvray, who did not accept that it would be possible for a Consultant Paediatrician to go out to various sites, even in an emergency. This dichotomy of view between a Consultant Paediatrician and the Director of Nursing must be resolved and the appropriate protocol put in place.

(c)It was clear from the evidence at the Inquiry that the midwives were not certain as to how they instigated the transfer of a sick baby by way of the Neo-natal Transfer Team. It is essential that midwives faced with a similar situation as in the case of Chloe, know how they arrange the transfer of a sick baby. According to Dr Rae, midwives would call the Consultant on call who, in turn, would contact the Neo-natal Transfer Team. Thereafter, the Neo-natal Transfer Team would liaise with the Consultant who had contacted them. This has already been considered and appropriate steps recommended by the Review Board. However, there still remains the problem of the transfer of a very sick baby from the midwife unit to Royal Alexandra Hospital, where there would be no time for the Neo-natal Transfer Team to arrive and effect the transfer. I understand that such transfer would now be by way of what is known as a "999" or "blue light" ambulance, and that the baby would be accompanied by a midwife from the unit. The difficulty with this is that a baby, who is possibly dying, might even die *en route* from the midwife unit to the Consultant-led unit and would not be accompanied by his or her mother or father. Dr Coutts clearly indicated in his evidence that the decision not to proceed with the transfer of Chloe had the benefit that both Ms Watt and Mr McIver were with Chloe, to comfort and hold her in her last minutes. It is suggested, therefore, that the Board should consider in more detail how the transfer of a baby in such circumstances could be effected from the midwife-led unit to a Consultant-led unit.

- In his submission on behalf of the family, Mr Carruthers criticised the fact that Ms Watt and Mr McIver were unaware that a Review had been carried out and that they had not been advised of the outcome of that Review. While accepting that the Review is still in draft form, it is surely appropriate that Ms Watt and Mr McIver were informed that such a Review was taking place. Dr Cassidy had, in effect, accepted responsibility after the death of Chloe for dealing with any queries and questions raised by Ms Watt and Mr McIver. Quite correctly, she had indicated to them that she would discuss the matter in further detail with them, after she had received the *post mortem* report. Dr Cassidy was very concerned and upset that there had been a delay in carrying out the *post mortem* and that subsequently she had not been granted access to the *post mortem* report. As a result, she had not been able to fulfill the promises she had made to Ms Watt and Mr McIver. It should be said, however, that Mr McIver, in his evidence to the Inquiry, clearly indicated that he wanted nothing to do with anyone associated with Inverclyde Royal Hospital, Royal Alexandra Hospital, or the Health Board. Notwithstanding this, it is my recommendation that the Board review their procedures for counselling and supporting parents of a child in the aftermath of such a tragic event.

Following upon the death of Chloe, the Health Board carried out a Critical Incident Review on 22 April 2004. The draft report of this Review was lodged with the Inquiry (production D.3.1). The Inquiry was advised that this report remained in draft as the Health Board were awaiting the outcome of the Fatal Accident Inquiry to ascertain whether any further amendments to the report would be necessary. I would hope that the Health Board would give consideration to the recommendations made by me above before issuing their final report.

These observations and recommendations are made formally in terms of Section 6(1)(e).

Sheriff of North Strathclyde at Greenock

2nd November 2005