CORONERS ACT, 1975 AS AMENDED

SOUTH  *AUSTRALIA*

RULING OF CORONER

An Inquest taken on behalf of our Sovereign Lady the Queen at Adelaide in the State of South Australia, on the 29th, 30th and 31st days of July, the 2nd day of August and the 3rd and 18th days of September 2002, before Anthony Ernest Schapel, a Coroner for the said State, concerning Matthew Anthony McPhail.

1. Introduction

1.1. At about 11.55pm on 8 July 2000 Theresa Marie Osborne, then aged 22, was admitted to the Naracoorte Health Service Inc. (the Naracoorte Hospital or the hospital). Ms Osborne was at about 39 weeks gestation and her expected date of delivery was 18 July 2000. Although not technically in labour at the time of her admission, labour was established over the ensuing night and day. Ms Osborne's child was delivered at 9.55pm on the evening following her admission, that is on 9 July. Delivery was effected by means of forceps. The child, who has been named Matthew Anthony McPhail, was declared life extinct at about 10.20pm that same evening.

1.2. For current purposes I do not need to restate the entire history of Ms Osborne's labour. Its features of significance were firstly the administration of a Syntocinon Infusion that was commenced at about 1.30pm on 9 July in order to stimulate the slow progress of labour, and secondly the connection of a cardiotocograph (CTG) to continuously monitor the heart rate of the unborn foetus from the time of its connection to the time of delivery. During the course of labour, a number of non reassuring aspects of the CTG trace were observed. The occurrence of three 'type two' dips at approximately 6.55pm on 9 July were of particular concern. The CTG trace at that time indicated that the foetus' heart rate on three occasions had fallen below 80 beats per minute. A rate of between 120-160 beats per minute is considered normal. As a result of these worrying observations, certain medical intervention, that

also does not need to be restated, was undertaken. Following that intervention, the heart rate of the foetus was restored, for a time, to within normal limits.

1.3. However, the CTG trace reveals an alarming, and ultimately catastrophic, deterioration in the heartbeat of the foetus not long after 9.00pm on 9 July. The trace then reveals total loss of the foetal heartbeat, occurring some time between 9.30pm and 9.40pm.

1.4. At 9.44pm Dr Brian Norcock, a local general practitioner responsible for the care and treatment of Ms Osborne during her labour, entered the labour ward and observed that the CTG revealed no foetal heartbeat. Dr Norcock then called Registered Midwife Bronwyn Munro into the ward. Ms Munro was the midwife responsible for Ms Osborne's care. A further examination by means of a sonacaid revealed that there was no sign of a foetal heartbeat at that time. Dr Norcock formed the view that he could deliver the child with the use of Neville Barnes forceps. He did this uneventfully at 9.55pm. The child exhibited no outward sign of life immediately after delivery. In particular, Dr Norcock observed that the child was pale and cyanotic. Dr Norcock was to assign an Apgar score of 0 to the child at delivery. The Apgar score refers to the heart rate, respiratory effort, muscle tone, reflex response and colour of a newborn child. The maximum Apgar score is a score of 10, which is the score assigned to a healthy baby on delivery. A maximum score of 2 points is assigned to each of the five parameters I have described. An Apgar score of 0 on delivery, as had been assigned to Matthew McPhail, implies no heart rate, no spontaneous breathing, no reflex activity and poor colour, and signifies that a child is essentially still-born.

1.5. An attempt was made to resuscitate the child. Initial efforts at resuscitation were performed by Dr Norcock. During those initial efforts, Dr Anthony Dixon, who is a general practitioner accredited by the Naracoorte Hospital to perform caesarean section deliveries, and who that evening had been available for such an eventuality, came into the ward. He then assisted with attempts at resuscitation. There are a number of entries recorded in the hospital progress notes relating to the state of affairs after five minutes. I am not certain whether reference in the evidence to the period of five minutes has consistently referred to five minutes post delivery or whether it has referred to the period since the commencement of attempted resuscitation. It does not

matter as they are virtually the same. At 10.45pm on 9 July 2000 Dr Norcock recorded in handwriting the following:

> 'Fet @ 5/60 100 but weak & minimal output'
>
> (Exhibit C6)

Dr Norcock said that this entry was intended to refer to the existence of a foetal heart rate of 100 beats per minute at five minutes post delivery but that it was weak and with minimal output.

At 11.30pm the same night Dr Dixon wrote in the hospital progress notes his account of what had transpired. It reads as follows:

> 'Attended to assist with resusc of baby
> Arrived with newborn five mins old (~ 2200 hr)
> Already intubated & with good ventilation to both lung fields
> HR of 100 achieved at one point but no apparent cardiac output. No pulses detected.
> Assisted with external cardiac compression.
> No response to resusc inc ETT adrenalin & bicarbonate through umbi vein.
> Resusc ceased with no response beyond 20 mins.
> Repaired 2º tear of mother with 2/0 vinyl.
> Also anterior graze in vag vault noted – no sutures required.
> Stayed to assist with situation post delivery.'
>
> (Exhibit C6)

The abbreviation HR above was said to refer to heart rate (T443).

1.6. Apart from the heart rate recorded after five minutes, as referred to in this documentation, there is no evidence of any other neo natal sign of life, and I include in this, no evidence of function of the brain.

1.7. On 10 July 2000 Dr Norcock compiled a 'Report of Death' for the State Coroner's Office. In that report he described the delivery of the child at 9.55pm on 9 July and stated the following:

> 'The cord was round the neck but not excessively tight, on delivery Apgar was 0 and baby was taken to the resuscitation trolley immediately and Guedell airway and suction and bag and mask for 30 seconds then a 2.5 size ETT was inserted without difficulty resulting in adequate ventilation. A foetal heart was present at 5 mins in the order of 100 but weak and minimal cardiac output. ECM and adrenalin and sodium bicarbonate were administered. At 2220 there was no response to resuscitation with no cardiac output or tone and the foetal heart ceased and babe was certified dead and wrapped and handed to mother and father.'
>
> (Exhibit C2a)

1.8. Professor Roger Byard, Specialist Forensic Pathologist at the Forensic Science Centre, conducted a post-mortem examination on the child's body. In his report Professor Byard expressed the opinion that the cause of death was Hypoxic Ischaemic Encephalopathy. He also stated the following in his report:

> 'Had this death not occurred in hospital, it would have been termed an unexplained near term stillbirth.'
>
> (Exhibit C3a)

1.9. Associate Professor Alastair MacLennan who is an Associate Professor within the Department of Obstetrics and Gynaecology at the Adelaide University examined the documentation relative to the birth of the child. He also had access to the post mortem report as compiled by Professor Byard. Prior to the inquest, Associate Professor MacLennan furnished a report to Counsel Assisting the State Coroner. In his report Associate Professor MacLennan described what had occurred in respect of this child as a 'very early neo natal death'. He also stated the following:

> 'As there was a transient heart rate recorded after the birth an early neo natal death is technically the correct definition.'
>
> (Exhibit C15)

1.10. By Direction to Hold Inquest dated 29 July 2002, I have been directed by the State Coroner to hold an inquest into the death of Matthew Anthony McPhail.

1.11. The inquest was scheduled to commence before me on Monday, 29 July 2002 in the Coroner's Court. At the commencement of proceedings, and before I formally announced the holding of the inquest, I asked Counsel Assisting me and Counsel who had sought leave to appear for various concerned entities in this matter, whether they wanted to be heard at that stage of the proceedings on the discrete issue as to whether or not for the purposes of the law there was a death in this case. No Counsel wished to address me on this topic. Based upon the material that had already been made available to the State Coroner's Office, that is to say the material described above, and in particular that relating to the detection of a heart rate after the child had been delivered at 9.55pm on the night in question, I proceeded with the inquest. In this regard, the following passage in **Jervis on Coroners** is pertinent:

> 'If there is any doubt as to whether or not a child achieved an existence independent of its mother before dying, the coroner should enquire into the death, treating the question of still-birth as a preliminary issue. If an inquest is opened upon a body and it turns out to

be that of a stillborn child, the coroner, though there can be no conclusion as to the cause of death, should nonetheless transmit to the registrar of deaths a certificate setting out the facts as they are known.'

(Sweet and Maxwell, London 1993, para 5-04)

1.12. During the inquest, I heard oral evidence from Dr Norcock, Dr Dixon, Ms Munro, Associate Professor MacLennan and Professor Byard. The oral evidence that I received was relevant both to the issue as to whether or not there was the death of a person for the purposes of the Act and to the general issue as to the cause or circumstances of that death, should it be established on the evidence.

1.13. As the evidence in this matter unfolded, doubt arose as to whether the hospital documentation to which I have referred truly reflected what it outwardly appeared to state. A state of uncertainty now exists as to whether there had in fact been a heart rate detected post delivery, or whether the child was essentially still-born with no sign of life detected either at birth or at any time after the birth. I will refer to this issue again. It thus became necessary for me to decide whether in the absence of any sign of life either at the time of or after delivery, the coroner in any event had jurisdiction over a death that may have occurred prior to the delivery of the child from the womb of his mother.

2. The powers of the Coroner

2.1. Section 12 of the Coroner's Act 1975 (the Act) sets out the events that may properly be the subject of an inquest under the Act. The relevant provision in respect of this inquest is section 12(1)(a) of the Act and is expressed as follows:

'Jurisdiction

12.(1) Subject to this Act, an inquest may be held in order to ascertain the cause or circumstances of the following events:

(a) the death of any person by violent, unusual or unknown cause;'

Section 14 of the Act concerns the holding of inquests by coroners and states, as far as is relevant in this case:

'Holding of inquest by coroners

14.(1) The State Coroner must hold an inquest or direct another coroner to hold an inquest if –

(a) the State Coroner considers it necessary or desirable to do so;'

Section 25 of the Act states as follows:

> **'Findings of coroners upon inquests**
>
> 25.(1) A coroner must as soon as practicable after the completion of an inquest give his or her finding by writing in the prescribed form setting out as far as has been ascertained the cause and circumstances of the event that was the subject of the inquest.
>
> (2) The Coroner may add to his or her finding any recommendation that might, in his or her opinion, prevent, or reduce the likelihood of, a recurrence of an event similar to the event that was the subject of the inquest.'

2.2. It will be seen from those provisions that the power of a coroner to give findings or make recommendations pursuant to section 25 is dependent upon his satisfaction that there has been the death of a person.

2.3. Were I not satisfied, either as a matter of fact or as a matter of law, that there was the death of a person that might properly be the subject of an inquest under the Act, it is my view that I should refrain from giving any findings or making any recommendations.

3. Is the death of an unborn foetus in law the death of a person?

3.1. Whether or not the death of a person has occurred is for plain reasons usually not a matter that requires considered debate. That there is room for such debate in this particular case is illustrated by the polarity of the views of counsel to whom I am indebted. Mr John Homburg who appeared for Dr Norcock and Naracoorte Health Services Inc., Miss Heather Mack who appeared for Registered Midwife Bronwyn Munro, Mr Ralph Bonig who appeared for Dr Dixon and Miss Kate Hodder, Counsel Assisting the Coroner all submitted that on the evidence I could not be satisfied that there was the death of a person in this instance. However, Mr Tim Stanley who appeared for Ms Osborne and her partner Mr Troy McPhail, urged me to find that there was the death of a person in this case, both in law and in fact, and that therefore I should give a finding in relation to the cause and circumstances of that death pursuant to section 25(1) of the Act.

3.2. There can be no doubt that at one point in time, at least as an unborn foetus, Matthew McPhail was a living human entity. However, the first issue that calls for evaluation is whether as a matter of law and fact his death was that of a person, as opposed to the death of some other living entity, in this case, an unborn foetus. This involves a

consideration as to whether an unborn foetus is a person for the purposes of the Act. It is only where it can be established that a death of a person has occurred that I am cloaked with jurisdiction under the Act. If, on the material before me, I am not satisfied on the balance of probabilities that a death in this case occurred at a time when as a matter of law Matthew McPhail was a person, then I would not have jurisdiction to continue to hold this inquest. For the reasons that follow there is room for debate as to the time when the death of Matthew McPhail occurred, and whether at the time of his death, he was at law a person as opposed to some other living entity. Mr Stanley submitted to me that as a matter of law a still-birth as envisaged in Part 4 of the Act constituted the death of a person for the purposes of affording jurisdiction to the Coroner. All other counsel disagreed with this view of the law.

3.3. Whether as a matter of biology, philosophy, culture or religious doctrine an unborn foetus is properly to be regarded as a person, in my opinion as a matter of law an unborn foetus is not a person for the jurisdictional purposes of the Act. An unborn foetus becomes a person when it is fully extruded from the body of its mother. It follows, therefore, that while a coroner may hold an inquest into the cause or circumstances of the death of a person, he is not empowered to conduct an inquest into the cause and circumstances of the death of an unborn foetus, or to use another term, the death of a still-born child. I now give my reasons for so concluding.

3.4. The Act refrains from defining 'death', 'person' or indeed, 'death of a person'. In the Acts Interpretation Act 1915, 'person' is defined, but simply in terms of including a body corporate. There is in existence a piece of legislation that purports to define the death of a person. It is the Death (Definition) Act 1983, but like the Coroners Act, it begs the question as to what a 'person' is and it does not purport to define what living human entity might be the subject of death. It is silent as to whether it applies to foetal death, still-birth or whatever other expression that might be utilised to describe the death of a human entity at a time before it is fully extruded from the body of its mother.

3.5. According to authoritative texts on the subject, still-births were excluded from the jurisdiction of the Coroner at common law. The learned author of **Levine on Coroners' Courts**, (Sweet & Maxwell, London 1999) states at page 142, 'where the body is that of a still-born baby, there has been no death because there was no

independent life. Accordingly, there cannot be a full inquest'. **Jervis on Coroners** puts it similarly:

> 'for the child not having been born had no independent life and cannot form the subject of an inquest.'
>
> (Sweet and Maxwell, London 1993, para 13-41)

Counsel drew my attention to section 5 of the Act which excludes the operation of any rules of practice or procedure with respect to an inquest arising at common law. It is difficult to see how this could abrogate a common law rule defining the limits of the coroner's jurisdiction and at the same time vest in the coroner a jurisdiction that he would not otherwise have at common law. Section 5 in my view has little to do with jurisdiction.

3.6. Levine's and Jervis' proposition accords with what the common law regards as a person in other fields of law. Some jurisdictions in Australia, for the purposes of the criminal law, have passed legislation defining the moment when a child becomes a 'person' or a 'human being' or to put it another way, when a child is 'born alive', (e.g. NSW Crimes Act s20, Qld Criminal Code 292, ACT Crimes Act s10, WA Criminal Code 269, NT Criminal Code 156, Tas Criminal Code 153(4)). In South Australia, the position is governed by the common law.

3.7. At common law, it is neither murder nor manslaughter unlawfully to cause the death of a child in the womb. In **Regina v Townsend** [1874] 8 SALR 72, the facts were that an infant was found dead in a toilet with an object wedged in its mouth. No evidence was adduced to show whether it had lived after it was born. The mother was tried for murder. Her counsel argued in her trial before Mr Justice Wearing that there was no evidence that the child had been born alive. Wearing J said in arguendo:

> 'The books lay it down that in such cases it is necessary for the prosecution to prove that the child has been born alive in order to sustain a charge of murder. It is not sufficient to show an alternative; there will have to be distinct evidence of the point.
>
> The presumption must be in favour of the prisoner, until disproved by the prosecution, that the child was born dead.'

His Honour ruled that the Crown had not made out its case that the mother had murdered the child.

3.8. Old English authority suggests that the death of a child in the process of child birth would only give rise to a charge of manslaughter, arising out of a midwife's negligent infliction of a pre natal injury, where the child could be shown to have been born alive- **R v Senior** (1832) 168 ER 1298 .

3.9. Another illustration of the principle is afforded by what was stated by Barry J in directing a jury in **R v Hutty** [1953] VLR 338 at 339:

> 'A baby is fully and completely born when it is completely delivered from the body of its mother and it has a separate and independent existence in the sense that it does not derive its power of living from its mother. It is not material that the child may still be attached to its mother by the umbilical cord; that does not prevent it from having a separate existence. But it is required, before the child can be the victim of murder or of manslaughter or of infanticide, that the child should have an existence separate from and independent of its mother, and that occurs when the child is fully extruded from the mother's body and is living by virtue of the functioning of its own organs.'

This direction is said to embody what has become known as the 'born alive' rule. The rule has not been free from criticism, particularly in the United States as we shall see, but there is little doubt that it still reflects the common law.

That this is still the test at common law in England is evidenced by the House of Lords decision in **Attorney General's Reference No 3 of 1994** [1998] AC 245. Although it was held in that case that a person could be convicted of manslaughter by causing the post natal death of an infant by the infliction of injuries sustained in utero, the basic common law rule remains intact, that is to say that if the child had died in utero, the death of a person could not be said to have occurred.

In Canada it has been held that a foetus is not a 'person' and that midwives allegedly responsible for the death of a foetus during delivery by criminal negligence could not be convicted – **R v Sullivan** (1989) 43 CCC (3d) 65 (British Columbia Court of Appeal), (1991) 63 CCC (3d) 97 (Supreme Court of Canada).

At common law a foetus has no right to sue until it is born alive and survives. The oft-quoted dictum of Sir George Baker P in **Paton v BPAS Trustees** (1979) 1 QB 276 is pertinent here. He said at 279:

> 'The first question is whether this plaintiff has a right at all. The foetus cannot in English law, in my view, have a right of its own at least until it is born and had a separate existence from its mother. That permeates the whole of the civil law of this country … and is, indeed, the basis of the decisions in these countries where law is founded on the

> common law, that is to say, in America, Canada, Australia and, I have no doubt in others.'

This proposition accords with what the Supreme Court of Victoria held in **Watt v Rama** (1972) VR 353.

Sir George Baker's views were followed in Australia by Williams J in **K v T** (1983) 1 Qd R 396 at 400, on appeal by the Full Court of Queensland in that case and by Gibbs J on further application to the High Court – (1983) 57 ALJR 285 at 286.

A foetus not only has no right to sue, but it cannot be made a Ward of the Court – In **Re F (in utero)** 1988 Fam. 122.

A 'child of a marriage' as envisaged in the Family Law Act 1975 (C/w) does not include an unborn foetus – **Marriage of F & F** (1989) FLC 92.

The reference to 'person' in the Migration Act 1958 (C/w) has been held to be a person who is alive and born – **Re Rodriguez** (IRT Decision 4965, 28/2/95), **Re Fagan** (IRT Decision 6777, 19/3/96).

The Immigration Review Tribunal has consistently held that an unborn child is not to be regarded as a human being for the purposes of the United Nations Convention on the Rights of the Child – **Ly and the Minister for Immigration and Multicultural Affairs** [200] AATA 339 (28 April 2000), citing **R v Hutty** (supra) as reflective of the common law, and **Zefis and the Minister for Immigration and Multicultural and Indigenous Affairs** [2002] AATA 700 (16 August 2002).

It is to be recognised that differing considerations might well apply to the jurisdiction of a coroner, whose task it is to enquire into death by violent, unusual or unknown cause. However, all of the foregoing in my view amply illustrates that the law generally has steadfastly refused to embrace the unborn foetus within the concept of 'person'.

3.10. One has to look at the construction of the South Australian Coroners Act itself. As Mr Stanley in his helpful submission has pointed out, the Coroners Act is not totally blind to the existence of the concept of still-birth. In the definition of 'human remains' contained in Part 4 of the Coroners Act, a distinction is drawn between 'the body of a dead person' and that of a 'still born child'. This, to my mind, if anything, would tend to indicate that a still-born child is to be regarded, for the purposes of the Act

generally, as something different from a ‘person’ who has died; but further analysis is required and the distinction in the Act between the body of a dead person and that of a still born child has to be examined in its proper context.

3.11. Still born-child is defined in Part 4 as:

> 'A child of at least 20 weeks gestation or, if it cannot reliably be established whether the period of gestation is more or less than 20 weeks, with a body mass of at least 400 grams at birth, that exhibits no sign of respiration or heartbeat, or other sign of life, after birth but does not include the product of a procedure for the termination of pregnancy.'

3.12. The definition of ‘human remains’, in which the distinction between the body of a dead person and that of a still born child is housed, is contained in Part 4 of the Act. Part 4 deals with miscellaneous matters and the definition of ‘human remains’ contained therein is confined to those miscellaneous matters. There is nothing within the four walls of the Act when examined globally to suggest that the distinction between a person who has died and a still born child is a universal distinction to be drawn for all of the purposes of the Act.

3.13. The necessity for the distinction is brought into sharp focus when one examines section 31B of the Act. That provision, which is contained in Part 4, imposes a regime for the proper disposal of human remains. A person must not dispose of human remains or cause such remains to be disposed of unless the person has received, in cases other than cremation or where an authorisation for the disposal of the remains has been obtained from the coroner, a certificate of the cause of death under section 36 of the Births, Deaths and Marriages Act 1996 or, if the remains are specifically those of a still-born child, a doctor’s certificate under section 12 of that Act.

3.14. The Births, Deaths and Marriages Act 1996 for its purposes, distinguishes between a doctor’s certificate, on the one hand as to the cause of death of a deceased person (see section 36(3)) and, on the other hand a doctor’s certificate as to the cause of foetal death, that is the death of a still-born child (see section 12(3)). It can be seen, therefore, that the distinction between the body of a dead person and that of a still-born child, as drawn in the Coroners Act, is explained by the distinction contained within the Births, Deaths and Marriages Act. The distinction in the latter Act is occasioned by the differing circumstances in which the issue of certificates of cause of death for deceased persons and still-born children might occur. Therefore, it cannot be said that the distinction in the Coroners Act, confined as it is to the context of the

disposal of human remains, necessarily furnishes me with the definitive answer as to whether the death of a person includes that of an unborn foetus for the purposes of jurisdictional issues.

3.15. There are other hints, however. The Births, Deaths and Marriages Act currently in operation was enacted in 1996. Section 28B of the Coroners Act, which is the Part 4 provision that contains the definition of 'human remains' and 'still-born child', was also enacted in 1996 by virtue of an amendment of the Coroners Act 1975. That amendment was, interestingly and significantly, contained in Schedule 2 of the new Births, Deaths and Marriages Act 1996. In other words, the Births Deaths and Marriages Act and the relevant Part 4 provisions of the Coroners Act, to which I have referred, began life at the same time and by virtue of the same piece of legislation.

3.16. The Births, Deaths and Marriages Act 1996 was a wholly new piece of legislation repealing and effectively replacing the Births, Deaths and Marriages Act 1966. It does not define 'person' nor 'deceased person', but it defines 'still-born child' in exactly the same terms as in the concomitant 1996 amendment to the Coroners Act.

3.17. In direct contrast to the Coroners Act, however, the Births, Deaths and Marriages Act 1996 does, for all of its purposes, define 'death' as including still-birth. When the legislature enacted this new Births, Deaths and Marriages Act, at the same time amending the Coroners Act by virtue of its Second Schedule, it did not take the opportunity to define 'death' in the Coroners Act at all, let alone in the same terms as it did in the Births Deaths and Marriages Act. The legislature chose to let the concept of 'death' for the purposes of the Coroners Act remain undefined. This, to my mind, is a powerful indication that the legislature intended the broader definition of death, as contained in the Births, Deaths and Marriages Act, to be confined to that Act. Given the obvious interface between the two Acts, a corresponding inference is available that the legislature intended the concept of death to be narrower than that within the Births, Deaths and Marriages Act and to be confined to the deaths of persons not including still-births. This leads me to conclude that death, for the purposes of the Coroners Act, does not include that of a still-born child and in addition, that the concept of a person in that Act does not include a still-born child.

3.18. This conclusion is reinforced by the following. Section 13(1) of the Act furnishes a coroner with various powers in relation to "the body of a dead person", for example the power to direct a medical practitioner to perform a post-mortem examination of

the body of a dead person (section 13(1)(e). He may exercise these various powers where he believes on reasonable grounds that it is necessary for the purposes of an inquest or the determination of whether or not an inquest is necessary or desirable. It has already been observed that in Part 4 of the Act it is recognized that the body of a dead person is different from that of a still born child, at least as far as the definition of human remains is concerned. Notably, a coroner's powers in section 13(1) of the Act do not extend to the body of a still born child. These powers are given to the coroner in order to facilitate the exercise of his powers to conduct an inquest. This is yet another indication that the coroner has no power to conduct an inquest into the death of a still born child. If the coroner did have such a power, section 13 would have furnished him with the ability to exercise the various powers conferred by that provision both in relation to the body of a dead person and that of a still born child.

3.19. Mr Stanley sought to argue, and I hope I do not restate his submission too simplistically, that the mere reference to 'still-born child' in the Coroners Act was a plain indication that the law recognised that the death of a person for the purposes of the Act generally must include the death of a still-born child as defined in the Act. I do not agree. As already observed, the reference to still-born child is confined to the operation of Part 4 of the Act and is only mentioned in the context of what might constitute human remains for the purposes of the disposal of the same. If the definition of still-born child was intended to have universal significance, it is surprising that its definition is not contained in the general definition provision, section 6. It is equally surprising that the Act either does not expressly define 'death' as including still-birth or define 'person' as including a still-born child if Mr Stanley's construction is to be accepted. Surprising again is the fact that the coroner's section 13 powers, expressed as they are to facilitate his powers to conduct inquests, are restricted in their operation to the body of a dead person. Given the vastness of common law authority to the effect that for just about every purpose known to the law an unborn foetus is not a person, and in particular that at common law a coroner was never regarded as being furnished with jurisdiction over still-births if Levine's and Jervis' analyses of the common law are to be accepted, it would be astonishing that the legislature would, against the run of play, confer the coroner with such a jurisdiction by a side-wind.

3.20. Mr Stanley also argued that as a matter of policy, there is every reason to suppose that a modern coroner is furnished with jurisdiction to investigate the cause or circumstances of still-births by violent, unusual or unknown causes, especially where the still-born child is born very close to full term gestation. He poses the rhetorical question; what difference does it make as to whether a child dies just before or just after it is born for the purposes of conferring jurisdiction on the coroner? In the context of a peri-natal death, Mr Stanley argues that such a distinction has an air of artificiality. I have given anxious consideration to this submission as its force has to be recognised, especially in a case such as this where undoubtedly the child died at some point in time during the process of child-birth. The following compelling observations were made in the United States in **People v Chavez** 176 P2d 92, 94 (1947):

> 'Beyond question, it is a difficult thing to draw a line and lay down a fixed general rule as to the precise time at which an unborn infant, or one in the process of being born, becomes a human being in the technical sense. There is not much change in the child itself between a moment before and a moment after it expulsion from the body of its mother, and normally, while still dependent on its mother, the child, for some time before its born, has not only the possibility but a strong probability of an ability to live an independent life. It is well known that a baby may live and grow when removed from the body of its dead mother by a Caesarian (sic) operation. There mere removal of the baby in such a case or its birth in a normal case does not, of itself and alone, create a human being. While before birth or removal it is in a sense dependent upon its mother for life, there is another sense in which it has started an independent existence after it has reached a state of development where it is capable of living and where it will, in the normal course of nature and with ordinary care, continue to live and grow as a separate being … There is no sound reason why an infant should not be considered a human being when born or removed from the body of its mother, when it has reached that stage of development where it is capable of living an independent life as a separate being, and where in the natural course of events it will so live if given normal and reasonable care. It should equally be held that a viable child in the process of being born is a human being within the meaning of the homicide statutes, whether or not the process has been fully completed. It should at least be considered a human being where it is a living baby and where in the natural course of events a birth which is already started would naturally be successfully completed.'

It is evident that in some States of the USA the notion that a viable foetus is a 'person' for the purposes of the law of homicide has been embraced (e.g. **Commonwealth v Cass** 467 NE 2d 1324 (Mass, 1989)). This has to be examined, however, against the background that the United States Supreme Court, in a civil context, has held that 'In short, the unborn have never been recognized in the law as persons in the whole sense' – **Roe v Wade** 410 US 113 (1973). The British Columbia Court of Appeal in **R**

v Sullivan supra, a case involving death caused during child birth, recognised that the complete extrusion 'line of demarcation' had existed as part of the common law 'for centuries' and that in those circumstances it was not appropriate for the courts to extend the law. Indeed, as the court in **Chavez** observed, where is the line to be drawn? If, as Mr Stanley has urged me to find, the law is that the death of a person includes that of a still born child, as defined in Part 4 of the Act, the coroner would have jurisdiction over miscarriages that occur at 20 weeks gestation, but not at 19 weeks gestation. The figure of 20 weeks gestation is incongruous when it is remembered that for the purposes of the abortion law in the Criminal Law Consolidation Act 1935, prima facie proof that a child was capable of being born alive is afforded by proof of 28 weeks gestation. Drawing the line of demarcation at 20 weeks would seem to me also to be an artifice and one that the legislature did not intend. It is equally arguable that the coroner's jurisdiction is more happily delineated at the point in time when the child is fully extruded from the body of its mother, in accordance with the common law, rather than at some arbitrary point in the course of gestation. Moreover, it would seem to me that any other test would be so fraught with imprecision as to be unworkable. For these reasons, I do not think that Mr Stanley's argument is valid, attractive as it is, and it is pertinent to observe that in **Chavez** the common law born alive rule was applied notwithstanding the court's reservations about it. In my view, the law in South Australia still is that even in peri-natal deaths, the child must have been alive at the time it is fully extruded from the body of its mother for the coroner to have jurisdiction over its death.

3.21. Although I have concluded that the coroner does not have jurisdiction to enquire into the cause and circumstances of the death of an unborn foetus, it is still necessary for me to examine whether there was the death of a person based upon evidence in this case that there may have been the cessation of an element of life existing at a time post delivery.

4. Is there sufficient evidence of death post delivery?

4.1. The Death (Definition) Act 1983

Section 2 of the Death (Definition) Act is set out as follows:

> '2. For the purposes of the law of this State, a person has died when there has occurred:
>
> (a) irreversible cessation of all function of the brain of the person; or,
>
> (b) irreversible cessation of circulation of blood in the body of the person. '

4.2. The preamble to this Act announces that it is ‘An Act to provide a definition of death for the purposes of the law of South Australia’. In spite of that, and in spite of the name of the Act, it does not define ‘death’ in terms of what ‘death’ is. Rather, it is couched in terms of when a person has died. In my view it is a distinction without a difference. Although this piece of legislation is expressed in language suggesting that its purpose is to delineate the time beyond which a person can be taken to have died, (no doubt with such purposes in mind as the lawful shutting down of life-support equipment and the lawful removal of organs for transplant), the reality is that the Act does define death in that it prescribes the two events that might together or separately constitute death, which is in essence the cessation of the life of a person.

4.3. This piece of legislation was enacted in 1983. As already observed, the Coroner's Act does not define what biological process constitutes death. The Death (Definition) Act, as observed, states that the definition applies for the general purposes of the law in South Australia. It did not purport to make any exceptions and in those circumstances it would apply, in my view, to any piece of legislation that did not exclude its operation either specifically or by implication. The Coroner's Act does not expressly nor by implication evince any intention to exclude the operation of the Death (Definition) Act. Again it has to be observed that in 1996 the legislature refrained from enacting a definition of death in the Coroner's Act. The rule of statutory interpretation that holds that where a word is undefined but already has acquired a legal meaning, it will be taken prima facie that the legislature has intended to use the word with that meaning unless a contrary intention clearly appears from the context, would seem to apply here (**Attorney-General NSW v Brewery Employees Union** at NSW [1908] 6 CLR 469 at 531 per O’Connor J).

4.4. The only other hint in the statute law of South Australia as to what the law might regard as life, the cessation of which would be death, is contained in the Births, Deaths and Marriages Registration Act 1996. The expression ‘child born alive’ is utilised in that Act. It is not defined, but is used in contra distinction to a ‘still born child’ (see Section 12(2)(a)). One therefore assumes that for the purposes of that Act, a ‘child born alive’ is a child that has been born and has exhibited respiration or heart beat or some other sign of life. The expression ‘child born alive’ is not utilised in the Coroner's Act. There is no reason to suppose that what might be regarded by the law as a ‘child born alive’ for the limited purposes of the Births, Deaths and Marriages

Registration Act 1996 would have universal application for the purposes generally of determining what might constitute life or put in another way, being alive.

4.5. In my opinion, the Death (Definition) Act 1983 applies to the concept of death in the Coroner's Act. In my view, therefore, the law is that the death of a person, as envisaged in section 12(1)(a) of the Coroners Act, which is the provision conferring jurisdiction on the coroner, is constituted either by the irreversible cessation of all brain function of that person or the irreversible cessation of circulation of blood in the body of that person.

4.6. As seen, the cessation of the two bodily functions has to be the **irreversible** cessation of those functions. Thus the mere non-existence of the functions at a particular point in time is not determinative of death having occurred. Thus it was necessary to examine whether at a time post delivery there was the cessation of a relevant bodily function and that it was irreversible. This was so because on one view of the evidence, circulation of the blood may have been re-established post delivery, but then ceased irreversibly for all time. Mr Stanley argued that this evidence was sufficient for me to find that death, as defined by the Death (Definition) Act 1983, had occurred and that I therefore had jurisdiction.

4.7. I have already expressed the opinion that a person does not include an unborn foetus. It would follow that for the purposes of the Coroners Act, and for the coroner to assume jurisdiction, that if the coroner were not to be satisfied on the balance of probabilities that either irreversible cessation of all brain function had occurred or that irreversible of circulation had occurred at a time after a child was fully extruded from the body of the mother, he could not be satisfied that the death of a person had occurred.

5 Evidence concerning the demise of Matthew McPhail

5.1 Dr Brian Norcock

I have earlier alluded to the notations in the hospital progress notes concerning the efforts at, and results of, resuscitation. Dr Norcock and Dr Dixon both gave evidence before me. Dr Norcock was the first witness called. He gave evidence as to his management of Ms Osborne during her labour. He was initially asked little as to the attempts at resuscitation, but on the application of Mr Homburg, he was recalled to give further evidence on this topic. Meanwhile, Dr Norcock had remained in Court

during the evidence of both Ms Munro, the midwife, and of Associate Professor MacLennan. He had also been present during discussions between counsel and the bench concerning the issue as to whether the death of a person had occurred in this instance and what the significance of that issue was in terms of the coroner's jurisdiction.

5.2 When Dr Norcock was recalled, he told me that at 9.44pm the CTG revealed that there had been an almost flat line tracing of zero for the previous 15 to 20 minutes and that meant that there had been no foetal heart recordable for that period.

5.3 Dr Norcock then left the ward to summon Ms Munro. According to Dr Norcock, he and Ms Munro returned to the ward probably less than a minute after he had first observed the zero CTG tracing. Upon his return to the ward, Dr Norcock confirmed that there was no foetal heart beat, this time with the use of a hand held sonacaid. This procedure took about 2 minutes.

5.4 Dr Norcock then delivered the child and this occurred, as has already been observed, at 9.55pm. There was no sign of life at the moment of delivery. He observed that the skin tone of the child was pale white and that its lips and peripheries were of a bluish colouration.

5.5 The umbilical cord was then severed and the child was taken straight to the resuscitation trolley where efforts at resuscitation commenced. It took about 10 seconds from the time of delivery to the time the child was taken to the trolley.

5.6 The efforts at resuscitation included the insertion of an endotracheal tube, the administration of high volume oxygen and adrenaline and external cardiac massage (ECM).

5.7 Dr Dixon arrived after about 5 minutes. By then resuscitation was well underway.

5.8 There had been nothing particularly controversial about the evidence I have described so far and it was all in keeping with other evidence that I had already heard as well as the documentary material in the form of hospital records.

5.9 However, what followed from Dr Norcock was somewhat surprising given the unambiguous and unequivocal nature of his notations in the hospital progress notes and of his Report of Death to the State Coroners Office. Dr Norcock explained to me

that in reality it had been Dr Dixon who had thought that he could feel a heart rate. He said that Dr Dixon would have felt the umbilical cord first and then perhaps the chest, feeling there for the apex beat which is another way of picking up the heart beat. Dr Dixon had then asked Dr Norcock to see if he, Dr Norcock, could detect a heart rate. Dr Norcock said that he checked but was not sure, but that he was happy to agree with Dr Dixon in the hope that there was some form of response to the resuscitation. Dr Norcock's own attempts at finding a heart beat would have consisted of feeling the umbilical cord and the chest and listening with the aid of a stethoscope. As to whether Dr Norcock felt a heart beat, he told me 'I was never convinced. I was hopeful, but I was never convinced.'

5.10 As to his notation in the hospital progress notes, which he deciphered as 'foetal heart at five minutes, 100, but weak and minimal output', he said that he had been guided by Dr Dixon's assessment.

5.11 Concerning the notation of 'weak and minimal output', Dr Norcock gave me to understand that he had felt for a pulse but it was possible that what he had felt was his own pulse and had misinterpreted this as the pulse rate of the infant. He had continuously felt for a pulse for about 20 to 30 seconds. He had also used a stethoscope to listen for a heart beat, but had heard nothing.

5.12 As to the heart rate of 100, Dr Norcock said that Dr Dixon had said at the time that he thought he had a pulse rate of 100, so he assumed that Dr Dixon would have measured it for 15 seconds and multiplied it by 4 to achieve a rate per minute.

5.13 After further attempts at resuscitation that lasted another 25 minutes, Dr Norcock recorded that there was no response, no output and no tone and that the heart rate was zero. Life was then certified as extinct as it undoubtedly was by that time.

5.14 Dr Norcock said that in his view the child had not demonstrated any signs of life following delivery. Certainly, there had been no indication of spontaneous respiration, no indication of spontaneous movement nor any sort of reflex or response to stimuli.

5.15 Whilst not convinced that what he had detected was a pulse, Dr Norcock said that if what he had detected had in fact been the child's pulse, this indicated generally that there would have been some circulation of blood within the body of the child.

5.16 The effect of Dr Norcock's evidence was this. In reality it had been Dr Dixon who had detected what he had thought at the time was a heart beat of 100 beats per minute in the child, but that Dr Norcock himself had not been convinced of its existence.

5.17 I have to bear in mind two things about Dr Norcock's evidence. Firstly, Dr Norcock said that he appreciated the significance of the existence or otherwise of signs of life post delivery in terms of my powers to make findings in the inquest. Dr Norcock also appreciates that his management of Ms Osborne's labour, and in particular his delay in not making a timely decision to perform a Caesarean Section delivery, has been the subject of criticism by Associate Professor MacLennan. Secondly, Dr Norcock's evidence, endeavouring to cast doubt as it does as to whether in fact there had been a heart beat established post delivery, is seemingly at odds with the unequivocality of his entry in the hospital progress notes and that of his Report of Death to the State Coroner. When it was pointed out to Dr Norcock in evidence that nowhere in the written material in which he had been involved, either in its compilation or otherwise, was there any expression of doubt as to the existence of a heart beat at five minutes post delivery, Dr Norcock said:

> 'I did not know of any significance to a heart rate, whether it was present or recorded at five minutes of delivery at that time and it was not a major issue whether it was there, or not, on that night.'

5.18 <u>Dr Dixon</u>

Dr Anthony Dixon now practices in Geelong in Victoria. Prior to that he had been living and practising medicine in Naracoorte from 1997 until early 2002. His practice in Naracoorte was that of a general practitioner/surgeon which meant that the majority of his work involved surgery including surgical obstetrics. From time to time he had occasion to perform caesarean sections at the Naracoorte Hospital. He had been available, if necessary, on the evening of 9 July 2000 to perform a caesarean section in relation to Ms Osborne. However, he had not been aware during the course of that day and evening of Ms Osborne's confinement. He was at home in bed asleep when a little before 10pm that evening he received a telephone call from Dr Norcock who asked him to come to the hospital quickly because he was about to deliver a baby that did not have a heart rate.

5.19 Dr Dixon then proceeded to the Naracoorte Hospital, arriving there about 8 to 10 minutes after receiving the call from Dr Norcock. When he arrived at the delivery

room of the hospital he saw that Matthew McPhail was on a resuscitation trolley. Dr Norcock was there with the midwife Munro and others. Dr Norcock was providing artificial ventilation to the infant through an endotracheal tube. Dr Dixon assessed the situation and whilst Dr Norcock looked after the airway and ventilation of the infant, Dr Dixon took charge of circulation and medication issues.

5.20 Dr Dixon obtained a stethoscope and then started performing ECM on the infant. He used his free hand to see if he could detect a femoral pulse. At the same time, the stethoscope was placed on the chest of the infant in an attempt to detect heart sounds.

5.21 Dr Dixon told me that at no stage were there any heart sounds audible. He also told me that at no stage was there a spontaneous heart beat or pulse from the baby. Dr Dixon said that he performed ECM, 'compressing the heart at 100 per minute, or thereabouts' (T437). As to how he knew he had administered ECM at that rate he said:

> 'By experience. You don't count it out because at that stage, of course, as I mentioned, you've got – listening too for heart sounds, trying to feel a pulse and also scanning the rest of the body detecting other signs of features that may need attention, so the estimate of 100 is based on experience of being able to provide massage at that rate, or thereabouts.' (T438)

5.22 Dr Dixon said that the only activity in respect of the heart was that established by cardiac compression produced by him or the nursing staff. He mentioned on several occasions in his evidence that there was no spontaneous heart activity. Neither the administration of bicarbonate nor adrenalin produced any therapeutic effect. The infant had at no stage demonstrated any other signs of life. The infant had a completely flaccid tone, was pale and there were no spontaneous respiratory efforts nor response to stimuli.

5.23 Dr Dixon told me that at one stage he asked Dr Norcock to check for a heart beat to see whether he, that is Dr Norcock, had a different perspective on things. He said that he asked Dr Norcock to do that because:

> 'At that stage things were looking grim. There was no sign of any life in this baby and when it looks like, you know, this is going to end in a sorry outcome, it is worthwhile getting a contribution from someone else to verify that's the situation, then the way that I was reading it was in fact the way he was reading it as well.' (T440)

5.24 Dr Dixon denied that he had told Dr Norcock that he had detected a foetal heart rate of 100. This of course contradicts Dr Norcock's evidence. Dr Norcock had said that the basis of his subsequent notations that there had been a heart rate of 100 established was information that he obtained from Dr Dixon at the time the resuscitation efforts were taking place.

5.25 Dr Dixon was naturally questioned about his entry in the Naracoorte Hospital progress notes, in particular, 'HR of 100 achieved at one point but no apparent cardiac output and no pulse is detected'. Dr Dixon told me that the abbreviation HR indeed refers to heart rate. He said that the entry meant that:

> 'Effective cardiac compression at a rate of 100 a minute was being achieved but despite that cardiac compression of 100 a minute it was not producing any signs of cardiac output or recovery by the baby.' (T443)

Mr Stanley put it to Dr Dixon that the notation in the progress notes that I have just set out, was inconsistent with his evidence that a foetal heart rate massage had been administered for a period of 15 minutes. To this Dr Dixon said:

> 'The only – it was achieved for the – for 15 minutes, that's correct. The only reason I think I've written that is because initially, as I've mentioned, the heart rate would have been done on experience of what the correct heart rate was. When things were somewhat stable then one can use that clock above the resuscitation trolley to in fact verify and check that one is in fact in progress, so there would certainly have been probably more than one time after things were sort of stabilised in resuscitation attempts that I would have checked to make sure that not only the heart rate but the ventilation attempts were in fact approximated the correct rates, but certainly the cardiac massage of 100 was being achieved for 15 minutes not just for momentarily.'
>
> and …
>
> 'I'm not sure that I can add any further to what I've previously said. It certainly – the heart rate was being achieved for some time, it may have been that at one point I made the mental note to actually check that in fact it was in fact 100, but it was around about 100 for some time.' (T456)

5.26 As to the suggestion that his note in truth reflected the achievement of a spontaneous heart beat of 100, Dr Dixon refuted that and said that if that had been the case he would have used the term 'spontaneous' and he wouldn't have written the words 'no apparent cardiac output and no pulse was detected'.

5.27 Dr Dixon told me that he had no appreciation of the relevance to the issues before me as to whether or not a heart beat had been detected post delivery.

5.28 Counsel assisting me, Ms Hodder, asked Dr Dixon whether he was prepared to agree that his notation 'heart rate of 100 achieved at one point but no apparent cardiac output and no pulse was detected' was misleading. Dr Dixon said that it may be misleading to the lay person but it was a term that he used frequently and had not had it misinterpreted before. He repeated that if there had been some spontaneous heart activity he would have said so in terms in his notes.

5.29 Bronwyn Munro - Registered Midwife

The evidence of Ms Munro was not helpful in relation to the question as to whether or not there had in fact been the detection of a post delivery heart beat. Ms Munro was not directly concerned with monitoring the efficacy of the attempts at resuscitation. She has not recorded anything in the hospital progress notes on this subject.

5.30 Associate Professor Alastair MacLennan

Associate Professor MacLennan had said in his report to Counsel Assisting the Coroner that what had occurred here was a 'very early neo natal death'. He had also expressed the view that 'as there was a transient heart rate recorded after the birth an early neonatal death is technically the correct definition'. He said the same thing in evidence before me when he said that the recording of the heart beat after delivery meant that there had been 'technically a very very early neonatal death'. His opinion was therefore based on the assumption, correct or otherwise, that there had indeed been the recording of a post delivery heart beat.

5.31 Plainly, Associate Professor MacLennan could not corroborate the existence or otherwise of a post delivery heart rate, but significantly he said that in the panic of attempts at resuscitation, there can be doubt as to whether one is really hearing a foetal heart rate, especially in a noisy theatre. He said 'you know we've often thought that a dead body has had a breathe or a dead body has had heart rate when it's not.' I take this into account in assessing the genuineness of Dr Norcock's assertion, to which I have already alluded, that he may have mistaken his own pulse for that of the baby.

5.32 I asked Associate Professor MacLennan whether there had been cessation of all brain function by the time of delivery. He said:

> 'I think you must presume that because if there was some brain function you would have probably got at least a temporary better response, albeit temporary and feeling later or

albeit some twitch of movement because the Apgar score takes into five different parameters of the baby and movement is one and gasping of respiration is one of the residual functions that goes last, and to my knowledge this baby showed no response to respirations.'

5.33 The evidence before me is plain that there had been no twitch of movement or spontaneous breathing after delivery and so the assumptions underlying Associate Professor MacLennan's answer were correct.

5.34 Associate Professor MacLennan also told me the detection of the heart beat after resuscitation was still consistent with death of the brain. He said that it was likely all function of the brain had irreversibly ceased prior to the detection of the heart beat. In answer to Mr Stanley as to whether he could exclude any brain function at the time of delivery, he said that he could not exclude that possibility, as there were instruments such as an EEG that might have detected brain function. I add here that no tests were undertaken at any time after the delivery of the child to determine if brain function had either existed or irreversibly ceased post delivery. The results of the post mortem do not shed any light on that issue.

5.35 Professor Roger Byard

Professor Byard performed the autopsy of Matthew McPhail. His qualifications include special training in paediatric and peri-natal pathology. He possesses a Master of Medical Science and an MD in paediatric pathology. He performed paediatric and peri-natal autopsies for several years before moving into the sphere of forensic science.

5.36 Counsel Assisting me asked Professor Byard whether it was possible for a baby to have a detectable heart rate, but with no circulation of the blood once it had been delivered. The following passage of evidence ensued:

'A. I think there are a number of issues with this. Certainly, anybody could have a beating heart and no circulation; it's called electromechanical dissociation. It occurs, for example, if you have lost a lot of blood, or if there is blood within the sac around the heart, or if the heart itself is really damaged from lack of oxygen; so it's actually beating, but it's not beating very effectively. The difficulty with Matthew is that he was very ill, and he would have what's called clinically (sic) shutdown – peripheral shutdown. When anybody is having trouble oxygenating their system, the body responds by diverting blood from the fingers and the limbs in to the vital organs, like the brain and the heart, and so you could feel for a pulse and there wouldn't have been any circulation in the arms that you could detect, but it may be that there was circulation in organs. So it's possible there was organ

circulation going on. It also should be said that it's very hard in small babies, particularly when there's a cardiac arrest going on, to feel pulses. It's much easier to listen to the heartbeat.

Q. So in other words, even though you can't detect a pulse, it doesn't mean that it's not there.

A. It may be that you just can't feel it because it's very weak. It may be that you can't feel it because other things are going on. It may be that there may be no pulse peripherally, but the internal organs are still being oxygenated.

Q. Apart from listening to the heart, say, by a stethoscope, are there any means by which you can measure where there is a pulse after a baby has been delivered, or detect a heart rate.

A. You can put various devices on fingers, but it's not something you do in a cardiac arrest. This is for monitoring in an ICU. You can use Doppler scans to listen for circulation. The most important - or the easiest way to do it is to do the Apgar scores, and Matthew really came up with 1, which is very poor, and that means that he basically looked very pale with no real evidence of blood in the peripheral tissues.

CORONER

Q. What is the significance of that in terms of whether there had been circulation.

A. Well, I think they could say, (a) there's no circulation, your Honour; or (b) there's no circulation in the limbs but there still may be in the internal organs; but I suspect that this didn't last for very long.' (T402-3)

5.37 In answer to me on the same topic Professor Byard said:

'A. I think that given the fact that the Apgar scores for colour, which is basically perfusion, were zero, I would interpret the statement of the minimal output as basically negligible output because I think if there was proper circulation in the periphery that would have caused another score on the Apgar point. So I think that sometimes clinical documentation is not as accurate as it could be, and I think that when he says 'minimal', I think I would read that as none, otherwise then I would have some colour in the periphery. I couldn't exclude that there wasn't some circulation to internal organs.

Q. But we simply don't know.

A. We don't know, no, and there's really no way of telling.

Q. So from a medical point of view, heart beat, the existence of a heart beat does not necessarily imply the existence of circulation.

A. No, it doesn't. You can have the heart beating with no circulation and certainly there is no evidence of significant circulation in this child.' (T410-11)

5.38 As to whether in the circumstances a recorded observation of a heartbeat of 100 post delivery was surprising, Professor Byard said that this happens and that from his experiences in a neonatal ICU, babies had a tendency to do this. He said ‘everything will be absolutely flat and then they’ll have spontaneous heart beats,….’. Although

physiologically possible in theory, this begs the question, of course, as to whether in this particular instance Drs Norcock and Dixon had in fact detected a heart rate of 100. I return to this issue later.

5.39 Professor Byard was also asked about the possibility of there being some residual brain function at the time of delivery. Professor Byard was asked to examine the CTG tracing which demonstrated the cessation of heart beat between 9.30pm and 9.40pm. Professor Byard expressed the view that the most likely outcome at the time of delivery at 9.55pm was 'irreversible brain damage and non-function of the brain.' Picking up on this Mr Stanley asked him whether by the time of delivery there would have been irreversible brain damage as opposed to a lack of brain function altogether. Professor Byard said that it could have been either. He also told Mr Stanley that the detection of a heart beat five minutes post delivery did not imply a resuscitation of brain function. He said that the brain was the most sensitive organ to oxygen deprivation and that once the brain was deprived of oxygen for, as in this case, over 10 to 20 minutes, function cannot be restored.

6 The 'Delivery Summary', 'Neo Natal Details' and 'Apgar Scores'

6.1 After the events I have described, an internal pro forma hospital document entitled 'Delivery Summary' and 'Neo Natal Details' was prepared. These documents form two parts of the one page in the hospital record. The Delivery Summary describes the child as a stillborn baby and the Neo Natal Details refer to what had transpired here as a Stillbirth. There is provision in the Neo Natal Details for the recording of the Apgar score at 1 minute and 5 minutes post delivery.

6.2 The Apgar score at 1 minute on the document in question is said to be 1. This single point has been assigned to the child's heart rate and would imply a heart rate of 100 or less at 1 minute post delivery. All other scores at 1 minute are recorded as 0, that is to say that there was no respiratory effort, no muscle tone, no reflex response and no colour. The recording of this score of 1 for the heart rate at 1 minute is anomalous in that there is no other suggestion on the evidence that a heart rate was detected at 1 minute post delivery.

6.3 Dr Norcock told me that the Apgar scores had been recorded by Ms Munro on the basis of information given to her by the medical staff, in this instance by him and Dr Dixon. Dr Norcock said that he and Dr Dixon would have tried to estimate the Apgar

score and this information would later have been given to the midwife. Dr Norcock recalled no discussion as to the heart rate after 1 minute. He said that he did not believe that there had been an Apgar score of 1 at 1 minute. He said that with the efforts at resuscitation taking place, estimating an Apgar score at that busy time would have been the least of their priorities. He would not have been responsible for the recording of the Apgar score of 1 at 1 minute because he had assigned a score of 0 when he first checked the foetal heart and he would not have again checked that particular parameter again until 5 minutes. His view was that the Apgar score at 1 minute was still 0. The Apgar score of 1 at 5 minutes was explained by Dr Dixon's assertions that he could feel a heart rate at that time.

6.4 Dr Dixon was not present at 1 minute post delivery. I don't think there is any suggestion to the contrary. He can therefore not be held responsible for the recording of an Apgar score at 1 minute as recorded in the Neo Natal Details. He said that, at the time of his arrival, there was no heart rate sufficient to provide an Apgar score of 1. He said that his assessment was that the infant had an Apgar score of 0 and that this was so:

> '…from the time I first saw Matthew until we decided to cease resuscitation. There was no evidence of any heart rate and if I had been asked the Apgar score on my contribution I would have indicated that the heart rate should have been given a score of 0 at 5 minutes.' (T445)

He said that as far as he could recall, the first time he had seen the documentation that records the Apgar scores was the day that he gave evidence. In effect, he said that he had no input into any of the notations on that document. His evidence that the Apgar score would have been 0 at 5 minutes is in keeping with the rest of his evidence that there was no spontaneous heart beat at any stage nor any other sign of life at any time while he was participating in the efforts of resuscitation.

6.5 I place no emphasis on the post recorded Apgar score of 1 at 1 minute. Taking the other evidence at its highest, there is no evidence that any heart rate was detected at 1 minute. There is nothing in the progress notes to that effect and no one has ever suggested a heart rate at 1 minute in any other documentation. In short, there is nothing to lead me to any firm conclusion that the recording of a score of 1 at 1 minute was anything other than an error.

7 Findings

7.1 For the purpose of deciding whether the death of a person has occurred in this matter. I make the following findings of fact.

8 Possible death by the irreversible cessation of all brain function

8.1 Dr Norcock said that his assignment of an Apgar score of 0 at delivery signifies a lack of brain stem activity at the time of delivery. I accept that. This is consistent, of course, with the opinion of Associate Professor MacLennan that it must be presumed that cessation of all brain function had occurred by the time of delivery because if there had been some brain function there would have been a better response to resuscitation. I accept the evidence of Associate Professor MacLennan on this issue. Although Associate Professor MacLennan could not exclude the possibility of brain function at the time of delivery, such a concession would not enable me to find the existence of brain function at the time of delivery on the balance of probabilities.

8.2 I accept the evidence of Professor Byard that there could have been either irreversible brain damage or lack of brain function altogether by the time of delivery and I accept his opinion that the most likely outcome at the time of delivery was irreversible brain damage and non-function of the brain.

8.3 I accept the evidence of Professor Byard that the existence of a heart rate five minutes post delivery did not imply a resuscitation of brain function and I accept the basis of that assertion, namely the length of the period over which the brain had been deprived of oxygen prior to delivery.

8.4 There is no objective evidence as to the existence of brain function at the time of delivery nor at any time post delivery, such as evidence that might have been afforded by a positive EEG examination.

8.5 For the above reasons, I am not satisfied on the balance of probabilities that there was the existence of any brain function in Matthew McPhail either at the time of delivery or at any time after delivery.

8.6 I have already found the law to be that a ‘person’ for the purposes of the Act means a person fully extruded from the body of the mother, and not an unborn foetus.

8.7 Because I cannot find the existence of any brain function at a time when Matthew was a person for the purposes of the Act, it follows that I cannot find on the balance of probabilities that there was the irreversible cessation of all brain function at a time when Matthew McPhail was a person for the purposes of the Act. Put in another way, I simply do not know whether Matthew McPhail suffered irreversible cessation of all function of the brain after he was born because I do not know whether there existed any brain function after his birth. If anything is more likely than the other, the likelihood is that all brain function had irreversibly ceased prior to the full extrusion of Matthew McPhail from the body of his mother.

8.8 I am therefore unable to find on the balance of probabilities that the death of Matthew McPhail, as a person, occurred by way of the irreversible cessation of all function of the brain.

9 Possible death by irreversible cessation of circulation of blood in the body

9.1 There are two distinct difficulties standing in the way of a finding that Matthew McPhail died by way of the irreversible cessation of circulation of blood in the body. The first difficulty is occasioned by the unsatisfactory nature of the evidence as to whether there was the existence of a heart rate at a time post delivery. The second difficulty is that even if there was a heart rate, this may not necessarily imply the circulation of blood in the body.

9.2 As to the first of those difficulties, Dr Norcock's understanding that there was a heart rate of 100 at five minutes is now essentially hearsay from Dr Dixon. I have reservations about the accuracy of Dr Norcock's assertions that he was never convinced that a heart beat had been achieved, which on the face of it are contradicted by the unequivocality of his notes and Report to the Coroner. Dr Dixon told me that contrary to his note 'HR (heart rate) of 100 achieved at one point …', there was no heart rate detected at any time after his arrival in the ward. He told me that the rate of 100 referred to in his note was a reference to the rate of which external cardiac massage (ECM) was applied to the child, that is, the rate at which the heart was palpated was 100 compressions per minute. At no stage was there a spontaneous heart beat. He denied that he told Dr Norcock that he had achieved a heart rate of 100.

9.3 I recognize that under Section 22 of the Coroner's Act I am not bound by the rules of evidence but may inform myself on any matter in such manner as I think fit. I have given careful consideration as to whether I ought to a) reject Dr Norcock's evidence and take his notes and Report at face value, and b) reject Dr Dixon's oral testimony on oath before me to the effect that there was no spontaneous heart beat but act upon his alleged statement to Dr Norcock that there was a heart rate of 100 and act upon his own note that suggests that such a rate was 'achieved at one point'. Mr Stanley, for the parents of Matthew McPhail, urged me to adopt that course.

9.4 At first blush I am attracted to Mr Stanley's submission. The words 'achieved at one point' are altogether inappropriate to describe an ECM rate that was maintained constantly for several minutes. They are more apt to describe the transitory attainment of a goal, such as a heart rate. On the other hand, Dr Dixon's notes do go on to state that in spite of the heart rate being achieved at one point, there was 'no apparent cardiac output – no pulse detected', which of course is consistent with there having been no heart rate and is consistent with Dr Norcock's view of the matter based upon his own recorded observations independent of what he says Dr Dixon told him at the time.

9.5 I am left in the position that I simply do not know where the truth lies in relation to whether resuscitation efforts bore the fruit of a heart beat at five minutes, a heart beat which then ceased. Dr Dixon had no demonstrable motive to deceive me. It is possible that he is mistaken as to the interpretation that he places on his own note, but in all I am not satisfied on the balance of probabilities that there was a heart beat detected post delivery, being a heart beat that ceased irreversibly at a time when Matthew McPhail was a person in the eyes of the law.

9.6 As to the second difficulty, even if there was a heart beat, it seems to me that the law is that it would not be enough to show the mere irreversible cessation of that heart beat. Death occurs where there is irreversible cessation of circulation of the blood in the body. This implies that there must be in existence circulation at a time when the infant was a person at law. Professor Byard's evidence leaves me in the position where I am simply unable to say that at any time post delivery, there was any circulation of blood in Matthew McPhail's body, the irreversible cessation of which might constitute death.

9.7 For all of the above reasons, I am unable to find on the balance of probabilities that the death of Matthew McPhail, as a person, occurred by way of the irreversible cessation of the circulation of blood in the body.

9.8 There is insufficient evidence of either any brain function or any circulation of blood at a time after Matthew McPhail became a person in law. Therefore I am unable to find that there was the death of a person in this case so as to cloak me with jurisdiction to enquire into the cause and circumstances of that death and make findings in relation to it.

9.9 There is one other matter I should mention. It was submitted to me by Mr Stanley that I could find death simply on the basis of the existence of the cessation of the neo-natal heart beat, without the necessity of proof of the existence of any other sign of life such as brain function, of which in this case there was simply no evidence.

9.10 I have already stated that I am unable to find the existence of a heart beat post delivery. However, the following observations may be made.

9.11 In whatever fashion the concept of death may legally be defined, death in reality is the cessation of life. A person has died when its life has ceased. Plainly, a person cannot die unless it has, as a person, lived.

9.12 Life is not defined for the purposes of the law, but it seems to me that for those same purposes of the law that are served by the definition of death in the Death (Definition) Act, what the law might regard as constituting life has to be compatible with its definition of death.

9.13 Therefore, in my opinion, it can be seen from the definition of death referred to that the law recognises that there are at least two essential elements of the life of a person. They are some function of the brain as well as the circulation of blood in the body. In other words, if the irreversible cessation of either bodily function constitutes death, both functions must be, for the same purposes of the law, essential elements of life. Moreover, from the words in the Act "function of the brain **of the person**", and "circulation of blood in the body **of the person**", those elements must have existed at a time when the entity was a legal person, as opposed to when it had been some other living entity such as a foetus.

9.14 Thus if when a foetus is born, one of the two bodily functions has already irreversibly ceased, as brain function probably had here, the entity as a legal person, as opposed to its existence as an unborn foetus, was never bestowed with life. It would thus be erroneous to say that the entity, as a legal person, has died. For a coroner to assume jurisdiction, he must be satisfied that there has been the death of a person, as opposed to say, the death of an unborn foetus.

9.15 It would be irrelevant to show that the other essential bodily function of life continued to exist after birth and then irreversibly ceased. Such irreversible cessation of the remaining essential bodily function could not constitute death as the born entity was not a live person in the first place.

9.16 If I am wrong that the Death (Definition) Act 1983 applies, it would seem to me that it could still not be shown that death had occurred while Matthew McPhail was a person. As already observed, there was no evidence of any sign of life post delivery other than the existence of a heart beat which on the balance of probabilities I have been unable to find.

9.17 In any event, and even taking the evidence of the heart beat at its highest, if one is to pray in aid the common law 'born alive' rule, it could not be said that Matthew McPhail was 'fully born in a living state' – **R v Hutty** supra at 339.3. The requirement that the child have a 'separate and independent existence in the sense that it does not derive its power of living from its mother' would also not be fulfilled – **R v Hutty** at 339.4.

9.18 In **Rance v Mid-Downs Health Authority** [1991] 1 QB 587 Mr Justice Brooke at 619 referred to the distinction between the status of a foetus or child in its mother's womb and the status of a child born alive. He referred to four nineteenth century cases which illustrate the common law approach to the question of what essential elements of life must be present for a child to be born alive. His Lordship said:

> 'In **Rex v Poulton** [1832] 5 C & P 329, there was evidence that the baby had breathed but insufficient evidence that the child had ever been fully born. The jury was told by a medical expert that it frequently happened that a child was born as far as the head was concerned but that death took place before the whole delivery was complete. Littledale J directed the jury that they must be satisfied that the child had been born alive before they could convict and added:

> "With respect to the birth, the being born must mean that the whole body is brought into the world; and it is not sufficient that the child respires in the progress of the birth."

In **Rex v Enoch** [1833] 5 C & P 539, Parke J adopted this ruling when he directed the jury that the child might breathe before it was born but its having breathed was not sufficiently life to make the killing of the child murder and that there must have been an independent circulation of the child.

In **Rex v Brain** [1834] 6 C & P 349, Parke J directed a jury that if a child had been wholly born, and was alive, it was not essential that it should have breathed at the time it was killed, since many children were born alive, yet did not breathe for some time after birth.

Finally, in **Reg v Handley** [1874] 13 Cox C Commonwealth 79, Brett J was concerned with a case in which a newly born child was found dead. The umbilical cord was separated, the internal viscera were healthy and the bowels had acted soon after birth. The bladder and stomach were empty. The general effect of the medical evidence was that the child was full born, was born alive and from the inflated condition of the lungs had lived for an hour or more. Brett J directed the jury that a child was considered to have been born alive, ie. whether it existed as a live child, that is to say, breathing and living by reason of its breathing through its own lungs alone, without deriving any of its living or power of living by or through any connection with the mother.'

His Lordship at page 621 adopted the formulation of Brett J in **Reg v Handley** as to what is meant by being 'born alive'. With respect, I adopt His Lordship's approach. Not only did Matthew McPhail not draw breath, in my view there is no evidence that at any time after delivery he was capable of drawing breath. Everything points to the contrary. The mere existence of a heart beat without any evidence of any brain function, circulation of blood or other sign of life would not be sufficient by any common law definition to constitute life, the cessation of which would amount to the death of a person.

Key Words: Stillborn; Foetal Monitoring; Infant Deaths

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

Seal the 18th day of September, 2002.

Coroner