ORDER:
Restricting the publication of any report of the matter which disclosed the deceased's name and the names of any of his carers and/or anything that may identify the carers.

CITATION: *Inquest into the death of Baby M* [2011] NTMC 034

TITLE OF COURT:	Coroner's Court
JURISDICTION:	Darwin
FILE NO(s):	D0085/2010
DELIVERED ON:	9 September 2011
DELIVERED AT:	Darwin
HEARING DATE(s):	18 July 2011
FINDING OF:	Mr Greg Cavanagh SM
CATCHWORDS:	**Unexpected death of child in care, mandatory Inquest, death from complications arising from neonatal cerebral palsy.**

REPRESENTATION:

Counsel:

Assisting:	Jodi Truman
Department of Health:	Sonia Brownhill

Judgment category classification:	A
Judgement ID number:	[2011] NTMC 034
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IN THE CORONER'S COURT
AT DARWIN IN THE NORTHERN
TERRITORY OF AUSTRALIA

No. D0085/2010

In the matter of an Inquest into the death of
BABY M
ON 1 JUNE 2010
AT 18 AUNGER CRESCENT, BAKEWELL
DARWIN

FINDINGS

(9 September 2011)

Mr Greg Cavanagh SM

Introduction

1. "Baby M" (who's name has been restricted from publication) was an Aboriginal male born on 18 January 2006 at the District Hospital, in Kununurra, Western Australia. His mother is Natalie Anne Carlton and his father is Benjamin Ward. Baby M died sometime between 7.00 am and 10.15am on 1 June 2010 at his home in Bakewell in the Northern Territory of Australia. He was declared deceased by St John Ambulance officers who attended the address after cardio pulmonary resuscitation ("CPR") was ceased by them. Baby M was almost four years and 6 months of age at the time of his death.

2. For reasons which will appear below, this death was reportable to me pursuant to s.12 of the *Coroners Act* ("the Act") because it was a death of a person who immediately before death was a "person held in care". A person held in care is defined under s.12 of the Act to include a child who is in the CEO's care as defined in the *Care and Protection of Children Act*. I note that this Act commenced operation in December 2008 and repealed and replaced the previously existing *Community Welfare Act*. In addition, as a result of being a person held in care immediately prior to death, this inquest is mandatory pursuant to s.15(1) of the Act.

3. Pursuant to s34 of the *Act*, I am required to make the following findings:

> "(1) A Coroner investigating:
>
> a. A death shall, if possible, find:
>
> (i) The identity of the deceased person.
>
> (ii) The time and place of death.
>
> (iii) The cause of death.
>
> (iv) Particulars required to register the death under the *Births Deaths and Marriages Registration Act*"

4. I note that section 34(2) of the *Act* also provides that I may comment on a matter including public health or safety connected with the death being investigated. Additionally, I may make recommendations pursuant to section 35 as follows:

> "(1) A Coroner may report to the Attorney General on a death or disaster investigated by the Coroner.
>
> (2) A Coroner may make recommendations to the Attorney General on a matter, including public health or safety or the administration of justice connected with a death or disaster investigated by the Coroner.
>
> (3) A Coroner shall report to the Commissioner of Police and Director of Public Prosecutions appointed under the Director of Public Prosecutions Act if the Coroner believes that a crime may have been committed in connection with a death or disaster investigated by the Coroner"

5. Counsel assisting me at this inquest was Ms Jodi Truman. Ms Sonia Brownhill was granted leave to appear as counsel for the Department of Health. I thank each Counsel for their helpful assistance in this matter.

6. The Coroner's Court can impose certain restrictions on the publication of reports of the proceeding. The power to do so is found in s43 of the *Act* as follows:

"43. Restriction on publication of reports

(1) A coroner shall order that a report of an inquest or of part of the proceedings, or of evidence given at an inquest, shall not be published if the coroner reasonably believes that, to publish the report, would -

(a) be likely to prejudice a person's fair trial;

(b) be contrary to the administration of justice, national security or personal security; or

(c) involve the disclosure of details of sensitive personal matters including, where the senior next of kin of the deceased have so requested, the name of the deceased.

(2) A person shall not publish a report in contravention of an order under subsection (1).

Penalty for an offence against this subsection: $10,000 or imprisonment for 2 years."

7. In these proceedings, I made an order restricting the publication of any report of the matter which disclosed the deceased's name and the names of any of his carers and/or anything that may identify the carers. That order remains in place.

The Conduct of this Inquest

8. A total of seven witnesses gave evidence before me. Those persons were:

8.1 Detective Senior Constable Nathan Powell, the Officer in charge of the Coronial Investigation.

8.2 Mrs F, female carer of the deceased at the time of his death.

8.3 Mr F, male carer of the deceased at the time of his death.

8.4 Ms Melanie Morrow, Pharmacist at the Emergency Department at the Royal Darwin Hospital.

8.5 Dr Annie Whybourne, Consultant Paediatrician to the deceased at the time of his death.

8.6 Dr Terence Sinton, Director of the Forensic Pathology Unit at the Royal Darwin Hospital; and

8.7 Mr Rodney Thomson, Pharmacy Operations Manager at the Royal Darwin Hospital.

9. A brief of evidence containing 8 civilian statutory declarations and 8 statutory declarations from police officers, together with numerous other reports, photographs, police documentation, and medical records were tendered into evidence ("exhibit 1"). The death was investigated by Detective Senior Constable Nathan Powell who prepared a thorough brief and I thank him for his investigation.

Formal Findings

10. On the basis of the tendered material and oral evidence received at this Inquest I am able to make the following formal findings:

i. The identity of the deceased person was Baby M born 18 January 2006 at the District Hospital, in Kununurra, Western Australia.

ii. The time and place of death was approximately 10.15 am on 1 June 2010 at his home in Aunger Crescent, Bakewell in the Northern Territory of Australia.

iii. Particulars required to register the death:

a. The deceased was a male.

b. The deceased's name was Baby M

c. The deceased was of Aboriginal descent.

d. The death was reported to the Coroner.

e. A post mortem examination was carried out by Dr Terence Sinton who investigated and assessed the cause of death to be chronic degenerative damage from neonatal cerebral palsy.

f. The deceased's mother was Natalie Anne Carlton and his father was Benjamin Ward.

g. The deceased lived at an address in Aunger Crescent, Bakewell in the Northern Territory of Australia.

11. The cause of death, and any possible contributing factors, was of particular concern and was the subject of the majority of the evidence. I will return to this issue later in these reasons, however, I do find that the cause of death was complications from neonatal cerebral palsy.

Evidence of the Circumstances Surrounding the Death

12. At the time of his death Baby M was almost four years and 6 months of age. I received evidence that Baby M was born "at term gestation", which is the period at about 40 weeks of pregnancy. He was born by normal vaginal delivery. I heard evidence that when a child is first born a test known as the APGAR test is performed at 1 and 5 minutes after birth. The test is a screening tool to determine whether a newborn needs medical attention to stabilise the heart for breathing function. The 1-minute score determines how well the baby tolerated the birthing process and the 5-minute score assesses how well the newborn is adapting to the new environment. The rating is based on a total score out of 10, with 10 suggesting the healthiest infant. In Baby M's case, he received an APGAR score of 9 at 1-minute, and a score of 10 at 5-minutes.

13. Unfortunately it appears that at 11 hours of age, Baby M was noted by his mother to have stopped breathing. Baby M was assessed and it was found that he had suffered a cardiac arrest. According to the evidence he was aggressively resuscitated, but he did not have a spontaneous heart beat until

15 minutes had passed. Baby M was then transferred on artificial ventilation from the District Hospital at Kununurra to the Royal Darwin Hospital ("RDH"). At the RDH he was taken into the care of the "Special Care Nursery".

14. I received evidence that despite extensive medical investigations, no cause for his cardiac arrest could be determined. Unfortunately, as a result of his arrest, Baby M suffered from severe brain damage due to oxygen deprivation. This was referred to as hypoxic ischaemic encephalopathy. Magnetic resonance imaging ("MRI") of his brain revealed he had suffered extensive global damage.

15. Dr Whybourne gave evidence that the disabilities that Baby M suffered secondary to his severe neonatal brain insult were:

    15.1 Cerebral palsy of the spastic quadriparesis subtype, with stiffness and flexion deformities of all limbs;

    15.2 Severe developmental delay with severe intellectual impairment;

    15.3 Very poor speech development;

    15.4 Seizures of many different types

    15.5 Blindness bilaterally;

    15.6 Secondary severe gastrocesophageal reflux disease, commonly suffered by children with cerebral palsy. This causes aggressive vomiting, heartburn and recurrent pneumonia due to aspiration of secretions into the lungs. Baby M had undergone operations to manage this problem such was its severity;

    15.7 Mild bronchiectasis, with destruction and damage of lung tissue secondary to recurrent chest infections;

    15.8 Permanently dislocated left hip due to tightness of muscles;

15.9 Drooling due to inability to manage and swallow saliva.

As a result, Baby M also needed to be fed predominantly via a percutaneous gastrostomy ("PEG"), which is an opening directly into his stomach from the abdominal wall.

16. Baby M lived at the RDH in Ward 7B until he was aged 3 years and 4 months, because his parents were simply unable to care for him. He was also placed under the care of the CEO (initially the Minister under the previous legislation). Then in about February 2009 he was discharged to the care of Mr and Mrs F, two clearly remarkable and caring individuals who agreed to take Baby M into their care. Mr and Mrs F were carers under the *Life without Barriers* program.

17. As can be seen from the above, Baby M's care needs were very high, however whilst in the care of Mr and Mrs F he was also able to attend Nemarluk School and he received allied health support from the Children's Development Team of Carpentaria Disability Services, together with ongoing outpatient paediatric care from Dr Annie Whybourne. His health however was frequently threatened due to his respiratory problems. Prior to his death his respiratory health was described by Dr Whybourne as "very fragile" and "his most vulnerable problem". He was vulnerable to developing pneumonia from aspirating secretions into his lungs and from infections.

18. In March to April 2010 Baby M spent 3 and ½ weeks in hospital for severe pneumonia. During that admission it was observed that Baby M's upper airways could at times be compromised due to his inability to maintain his neck position. Dr Whybourne gave evidence that it was considered after review with a respiratory paediatrician that major surgery to assist the airway was not appropriate.

19. Following that admission, Dr Whybourne cautioned that Baby M could pass away from similar sickness. He also suffered from bronchiectasis (or lung scarring) and it was possible for him to deteriorate quickly at any time. In terms of his life expectancy, Dr Whybourne stated that it was considered "to be very poor" and that:

> "Baby M had lived a lot longer than we had expected".

and

> " … it's surprising that Baby M actually survived his baby period because his impact of the insult was so extreme we wouldn't have been surprised if he'd past away in that first couple of weeks of life".

20. On 13 May 2010 a joint guardianship order was made which provided that the CEO of the Department of Health and Families (as it then was) have permission to make decisions about Baby M's medical care, should his mother not be contactable. It was noted that Baby M's mother had indicated that in the event of Baby M having a severe life threatening illness that he be managed with oxygen, intravenous fluid and medications but that he not be intubated and ventilated. This was also recorded in the joint guardianship order.

21. On 25 May 2010 Baby M was brought to the RDH by his carers due to concerns they had been supplied with "off" or "spoiled" formula by RDH for use by the deceased. I received evidence that Baby M would receive his feeding via a formula known as "Nutrini Fibre". Mrs F gave evidence that in order to receive this formula, Baby M would need to see a dietician who would then provide a three (3) month script. Upon receipt of the script, Mrs F would attend at the main pharmacy at the RDH and obtain the formula and new tubing to administer the formula. Mrs F set out in her statement to the police that she would receive one month's worth of formula each time, however I do note that during the course of her evidence she said she would receive 3 months' worth at one time.

22. Mr and Mrs F gave evidence that when Baby M was given his formula on 25 May 2010 it was noted that it appeared "curdled". The same formula was provided to another female child that was in their care. Evidently the female child vomited upon being provided this formula. Baby M did not exhibit similar signs but both Mr and Mrs F were concerned and took both Baby M and the female child to the RDH immediately. I note that the evidence before me indicated that Baby M had in fact undergone surgery to prevent him from being able to vomit.

23. Baby M was seen by the staff at RDH and was noted as not to be exhibiting any signs of any ill effects from the formula. A copy of the notes related to that attendance were tendered into evidence before me (exhibit 7) and relevantly record the following:

> "Baby M seems his normal self. No fever/distress. No vomiting/apparent abdominal pain or diarrhoea.
>
> No change to level of interaction/response according to carers. Afebrile".

Dr Whybourne gave evidence that it was her assessment and opinion that there were "no ill health effects evidence from these formula feeds".

24. As noted above, this formula had been provided by the RDH pharmacy to Mr and Mrs F. As a result discussions occurred to determine whether, and if so how, such out of date formula had been provided to Baby M by the pharmacy. It is clear from the evidence that both Mr and Mrs F were extremely concerned at the possibility of such out of date formula contributing in some way to deterioration in Baby M's condition which led to his death. I had their understandable concerns in the forefront of my mind throughout the evidence.

25. In relation to the provision of the formula, I received evidence from Melanie Morrow who is the Emergency Department Pharmacist at the RDH. Ms Morrow gave evidence that she had seen both Mr and Mrs F when they

attended at the Emergency Department on 25 May 2010 with Baby M and the female child. Ms Morrow noted that as soon as she sighted some of the bottles that had been brought in by the carers, she saw that they were out of date as they had the "old picture" on them. This was a reference to a change in the picture depicted on the label of the bottles that had changed over time. I note that a copy of those changed labels was tendered into evidence (exhibit 6) and they are obvious changes. Ms Morrow noted that when she saw the old picture she immediately realised that the pharmacy had not had bottles with that kind of label on them for quite some time. I heard evidence that she subsequently discovered from the manufacturer that the packaging had in fact changed in March 2009, some 14 months prior to its administration to Baby M.

26. Ms Morrow gave evidence that she discussed with Mr and Mrs F how they were rotating their stock at their home. It was during this conversation that Ms Morrow recalled that Mrs F had stated that they had placed new stock in front of old stock and that it was possible that the out of date feeds were due to their not rotating the stock. Ms Morrow also noted that Mrs F had agreed they had not been checking the expiry dates on the bottles themselves. As a result, Ms Morrow showed them how this could be done.

27. Ms Morrow gave evidence that a further conversation occurred at a later date with Mr F where there was discussion that a bottle that was not out of date had also curdled. This formula however was not provided to Baby M or the female child. As a result agreement was reached that these bottles would be collected for further investigation. Unfortunately before that could be done, Baby M died and it appears the relevant bottles may have been thrown away by Mr F.

28. In terms of this conversation recalled by Ms Morrow, Mrs F gave evidence that she did not participate in such a conversation, nor did she hear such a conversation. Mr F also gave evidence that he could not recall such a

conversation. Both Mr and Mrs F were adamant during the course of their evidence as to the care that they took in terms of what food they provided to Baby M (and likewise the other child in their care). I will return to this issue later in these reasons.

29. As stated previously, on 1 June 2010 Baby M was discovered by Mrs F to not be breathing. Baby M had been seen earlier by Mr F who undertook his feed and he appeared to be in no distress. Mrs F described hearing Baby M playing and sounding to be "in good spirits". Later that morning when she entered his room to cut his nails, he was not breathing. She described him as "still warm to the touch" but with no other signs of life. Mrs F screamed at her husband to call 000, and she commenced cardio-pulmonary resuscitation ("CPR"). That call to 000 was received at approximately 10.09am and the paramedics arrived at the scene at 10.15am. CPR was unsuccessful and Baby M was declared deceased by the paramedics at the scene.

Cause of Death

<u>The autopsy findings</u>

30. Dr Terence Sinton, Forensic Pathologist at the RDH, conducted an autopsy upon the deceased at 9.30am on 3 June 2010. His report formed part of exhibit 1. Within his report Dr Sinton noted his findings following an extensive external and internal examination of the body of the deceased and of the musculoskeletal system. He noted that associated with Baby M's history of neonatal cerebral palsy there was physical distortion of the head, trunk and limbs together with chronic deformity of the brain and skull, but with no evidence of any recent trauma or haemorrhage.

31. Dr Sinton did note however that there was evidence of acute hypoxia, or oxygen deficiency, to areas of the brain and fluid accumulation in the lungs in a manner consistent, at least in part, with chronic physical constraint of

the chest occasioned by the physical damage to the spine (scoliosis), but with no evidence of any further or recent damage or diseases of the lungs. It was Dr Sinton's opinion:

> "Given the history and autopsy findings, he (Baby M) died of chronic degenerative damage from neonatal cerebral palsy".

Dr Annie Whybourne

32. Dr Whybourne had been involved in the care provided to Baby M from the moment that he was first transferred to the RDH shortly after his birth. She is a Consultant Paediatrician by qualification and profession. She saw Baby M for regular assessments and attended upon him during his admissions to the RDH. As indicated earlier, Dr Whybourne gave evidence that because of his numerous health problems and disabilities, it was her opinion that it was remarkable that Baby M had survived for as long as he did.

33. Dr Whybourne was asked to give her opinion, based on her knowledge of Baby M and his various conditions, together with the material contained in the autopsy report, as to what had caused his death. Dr Whybourne stated that she agreed with the opinion of Dr Sinton as to the cause of death; however she stated that instead of the word "degenerative" she would have in fact used the word "complications". When this was raised with Dr Sinton he indicated he had no such difficulty with that description and considered it appropriate. I note that it appears on the evidence that it was these complications that were always expected (or anticipated) to eventually end the life of Baby M.

Decision

34. I have no doubt that Mr and Mrs F loved Baby M as if he was their own son. They took on an enormous responsibility when they undertook to be his carers and they performed their role with incredible courage, determination and love. Baby M was very lucky to have been able to have had them as his carers. They are clearly very loving and remarkable people and I make no criticism whatsoever of the care they offered to Baby M during the time he was with them.

35. Equally I have no doubt that in their search for a reason for Baby M's death; both Mr and Mrs F have gone over and over in their minds the weeks and days leading to his death to find some explanation. I accept that they were honestly and genuinely concerned that the provision of out of date formula to Baby M may have contributed to deterioration in his health, and contributed to his eventual death.

36. I note however that at the completion of the evidence, Mr and Mrs F requested that Counsel Assisting inform me that they now accepted and understood that the formula provided to Baby M only one week prior to his death was not what killed him, nor did it contribute to his death. I consider this an appropriate and reasonable concession to have been made by Mr and Mrs F based on all of the evidence that was presented before me. I agree with them.

37. I find that there is no evidence to support any suggestion that the formula that was provided to Baby M on 24 or 25 May 2010 contributed in any way to the cause of his death. Both Dr Sinton and Dr Whybourne stated in their evidence that it was their opinion that the formula did not contribute to Baby M's death. Dr Sinton was careful to point out that even if the formula was out of date at the relevant time, it would not have turned into a poison as such. It simply would have lost its nutritional value to Baby M. Due to the

significance of this issue, I set out precisely what Dr Sinton stated during the course of his evidence in this regard (tp.47):

> "In the normal course of events these products spoil after the use by date as quoted by the manufacturer. But that use by date is, in my experience and to my knowledge, quoted because the nutrient value of these substances decrease with time. There's a natural decay in the protein and vitamin structure of these materials with time. They don't turn into poisons or toxins in any way, they simply become much less effective in their nutritional role. And for that reason would be put aside in favour of the more recent manufactured material.
>
> THE CORONER: So they're not necessarily going to make you sick, they're just not going to be of much value to you?---That's so. That's right. So they don't work as well."

38. I accept the evidence given by Dr Sinton and Dr Whybourne. I find, as stated earlier, that Baby M died (unfortunately as was also clearly expected) from chronic complications from his neonatal cerebral palsy.

39. In terms of how this formula came to be provided to Baby M, I found the evidence given by Ms Morrow and also the evidence given by Mr and Mrs F to have been honest and credible. There was nothing in the manner of the evidence given, nor what was actually said, by any of these witnesses that led me to believe that they were not telling me the truth. I am therefore unable to find whether the conversation alleged to have occurred on 25 May 2010 was in the terms alleged by Ms Morrow, or not. Given however that the formula did not contribute to the death of Baby M, I do not consider it incumbent upon me to in fact make a finding about this conversation.

40. I am also satisfied that since Baby M's passing, and because of the concerns raised by the carers of having been provided with out of date formula by the RDH, the RDH has in fact made numerous changes to their systems and protocols in relation to the dispensing of such formula. I note that Mr Thomson provided a detailed statement as to how such formula is dispensed and the various checks that must occur. I also note that as from July 2011 a

"progressive phase out" of the distribution of enteral feeds from the RDH Pharmacy is to occur. This will result in the bulk of such feeds being distributed through a private provider. I therefore do not consider it necessary for there to be any recommendations made arising from this inquest.

41. I have no recommendations to make in relation to this death.

Dated this 9th day of September 2011.

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GREG CAVANAGH
TERRITORY CORONER