OFFICE OF THE STATE CORONER

FINDINGS OF INQUEST

CITATION:	**Inquest into the death of Arisa Huber**
TITLE OF COURT:	Coroner's Court
JURISDICTION:	Brisbane
FILE NO(s):	COR2145/05(7)
DELIVERED ON:	6 November 2007
DELIVERED AT:	Brisbane
HEARING DATE(s):	6 September, 14 & 15 December 2006
FINDINGS OF:	Ms Christine Clements, Deputy State Coroner
CATCHWORDS:	CORONERS: Inquest – sudden unexpected death of infant, in hospital, in bed with mother for breastfeeding, accidental suffocation, severe hypoxic episode.

REPRESENTATION:

Ms Kathryn McMillan SC of Counsel– appearing to assist the Coroner

Mr D Rangiah of Counsel– representing the family instructed by Maurice Blackburn Cashman Lawyers

Mr G Rebetzke of Counsel – representing Ms McKay, Ms McEvoy, Ms Carrigan & Ms Curtis instructed by Roberts & Kane Solicitors

Mr D Boddice SC of Counsel – representing Mater Hospital and employees; instructed by Minter Ellison Lawyers

CORONERS FINDINGS AND DECISION

1. The *Coroners Act 2003* provides in s45 that when an inquest is held into a death, the coroner's written findings must be given to the family of the person who died and to each of the persons or organisations granted leave to appear at the inquest. These are my finding in relation to the death of Arise Huber. They will be distributed in accordance with the requirements of the Act and placed on the website of the Office of the State Coroner.

The Coroner's jurisdiction

2. Before turning to the evidence, I will say something about the nature of the coronial jurisdiction.

The scope of the Coroner's inquiry and findings

3. A coroner has jurisdiction to inquire into the cause and the circumstances of a reportable death. If possible he/she is required to find:-

- whether a death in fact happened;
- the identity of the deceased;
- when, where and how the death occurred; and
- what caused the person to die.

4. There has been considerable litigation concerning the extent of a coroner's jurisdiction to inquire into the circumstances of a death. The authorities clearly establish that the scope of an inquest goes beyond merely establishing the medical cause of death.

5. An inquest is not a trial between opposing parties but an inquiry into the death. In a leading English case it was described in this way:-

> *"It is an inquisitorial process, a process of investigation quite unlike a criminal trial where the prosecutor accuses and the accused defends… The function of an inquest is to seek out and record as many of the facts concerning the death as the public interest requires."* [1]

6. The focus is on discovering what happened, not on ascribing guilt, attributing blame or apportioning liability. The purpose is to inform the family and the public of how the death occurred with a view to reducing the likelihood of similar deaths. As a result, the Act authorises a coroner to make preventive recommendations concerning public health or safety, the administration of justice or ways to prevent deaths from happening in similar circumstances in future.[2] However, a coroner must not include in the findings or any comments or recommendations, statements that a

[1] *R v South London Coroner; ex parte Thompson* (1982) 126 S.J. 625
[2] s46

person is or maybe guilty of an offence or is or maybe civilly liable for something.[3]

The admissibility of evidence and the standard of proof

7. Proceedings in a coroner's court are not bound by the rules of evidence because section 37 of the Act provides that the court "*may inform itself in any way it considers appropriate."* That doesn't mean that any and every piece of information however unreliable will be admitted into evidence and acted upon. However, it does give a coroner greater scope to receive information that may not be admissible in other proceedings and to have regard to its provenance when determining what weight should be given to the information.

8. This flexibility has been explained as a consequence of an inquest being a fact-finding exercise rather than a means of apportioning guilt: an inquiry rather than a trial.[4]

9. A coroner should apply the civil standard of proof, namely the balance of probabilities but the approach referred to as the *Briginshaw* sliding scale is applicable.[5] This means that the more significant the issue to be determined, the more serious an allegation or the more inherently unlikely an occurrence, the clearer and more persuasive the evidence needed for the trier of fact to be sufficiently satisfied that it has been proven to the civil standard.[6]

10. It is also clear that a Coroner is obliged to comply with the rules of natural justice and to act judicially.[7] This means that no findings adverse to the interest of any party may be made without that party first being given a right to be heard in opposition to that finding. As *Annetts v McCann*[8] makes clear that includes being given an opportunity to make submissions against findings that might be damaging to the reputation of any individual or organisation.

Introduction

11. Arisa Huber was born on 16 August 2005 in the Mater Mother's Hospital in South Brisbane. Her parents are Yumiko Huber and Phillip Huber. Arisa died in hospital on 18 August 2005 after suffering what was recorded on her death certificate as a "severe hypoxic episode". The death was formally recorded as a sudden unexpected death in infancy. There was also reference to prolonged rupture of the membranes as a condition affecting the mother in the course of the

[3] s45(5) and 46(3)
[4] *R v South London Coroner; ex parte Thompson* per Lord Lane CJ, (1982) 126 S.J. 625
[5] *Anderson v Blashki* [1993] 2 VR 89 at 96 per Gobbo J
[6] Briginshaw v Briginshaw (1938) 60 CLR 336 at 361 per Sir Owen Dixon J
[7] *Harmsworth v State Coroner* [1989] VR 989 at 994 and see a useful discussion of the issue in Freckelton I., "Inquest Law" in *The inquest handbook*, Selby H., Federation Press, 1998 at 13
[8] (1990) 65 ALJR 167 at 168

birth. The cause of death certificate was signed by Professor David Tudehope, Director of Neonatology at Mater Mothers Hospital.

12. The purpose of the inquest is to determine how Arisa died and the cause of her death. This death of their first born child was a tragedy for her parents and it is hoped that the inquest may assist in providing information to them. Most importantly, the inquest may be able to identify and highlight issues which may help prevent a similar death occurring.

Report to coroner

13. On 18 August 2005, Professor Tudehope, a neonatologist phoned the Office of the State Coroner and reported the death of baby Arisa Huber. It was indicated that the baby had been found in bed with the mother deeply cyanosed, without a heartbeat. The baby was with the mother for breastfeeding. The baby had been resuscitated, taken to intensive care and ventilated. A decision was made to extubate after discussion with the parents. Accidental suffocation was suspected. There were no signs of sepsis.

14. The parents were opposed to autopsy. There were no suspicions held regarding any improper action by anyone.

15. The death was formally reported via a form 1 A document to the coroner submitted by Professor Tudehope.[9] The report summarised the circumstances:

> *"Baby born at 1543 on 16/8/05 and cared for on post natal ward MMH. Found at 0650 on 17/8/05 intensely cyanosed, pulseless and apnoeic. After extensive CPR first sign of cardiac output after 8 minutes and pH 6.63. Admitted to ICN for ventilation and after evidence of brain death extubated at 1250 on 18/8/05 and pronounced dead at 1343. Full discussion with Deputy Coroner Christine Clements who felt that as parents did not consent to autopsy there was no necessity for override."*

16. Under the heading "contributing factors", it was noted:

> *"Breastfeeding in bed on post natal ward with mother."*

Summary and Discussion of Evidence

17. The statement of Obstetrics and Gynaecology Registrar, Patricia Diotto records the progression of events leading up to the birth which was assisted by vacuum extraction. An epidural was administered. The procedure was performed in conjunction with Dr Vacca and was indicated as necessary due to some signs of foetal distress in the foetal heart rate which was showing variable deceleration. Baby Arisa

[9] Exhibit A 1

appeared to be in good condition at birth. Her Apgar scores were 8 and 9 at one minute and five minutes respectively. Yumiko required some sutures after the birth. Yumiko had been given antibiotics due to fever.

18. The Consultant Obstetrician and Gynaecologist, Dr Aldo Vacca confirmed that baby Arisa was in good condition after her birth.[10] The Paediatric Registrar, Dr Somerville recommended four hourly observations of the baby as a precaution as the mother had a fever which may have been passed on to the baby.

Statement from mother

19. Arisa's mother, Yumiko Huber provided a statement[11]. She attended the hospital at about 10.30pm on 15 August 2005 after her waters had broken. As the delivery suite was very busy, she was told to go home and wait for a call to return. She returned at about 4.40am as she was in significant pain. Arisa was born at 3.43pm on 16 August with vacuum assistance.

20. After delivery, Yumiko and baby Arisa moved to the post natal ward to a room with two beds and a dividing curtain. The baby was in a cot next to the bed. Yumiko was very tired and anxious after delivery of her child having not slept the previous night. She also felt affected by the medication she had received. She said the room was noisy due to the other mother's visitors. She did not feel confident to respond to her baby's crying and felt that she was not given sufficient support or attention. She asked for assistance to attempt breastfeeding.

21. Yumiko's statement records her recollections. Her husband and mother visited that evening and left by about 8.00pm. During that time the nurse attended after Yumiko had buzzed. The nurse helped her to put the baby to her breast. The nurse then left. The mother recalls the baby being left with her in the bed. She attempted to breastfeed several times and to comfort the crying child. Yumiko remembers a different nurse attending around 11.00pm. This nurse placed the baby next to the mother's breast as she lay in the bed. Yumiko was having difficulty sitting up due to pain. The baby was then placed back in the crib. During the night Yumiko recalls her sheets being changed. She felt very tired. She recalls the nurse being there at various intervals. Her recollection is that Arisa started to cry again and the nurse attended and placed the baby beside the mother. She recalls the time as 3.30am. Yumiko was exhausted. The nurse instructed her to lie on her side so the baby could access her left breast. The light was switched off and the baby left by the mother's side in bed with her. Yumiko thinks she must have fallen asleep quickly after this. Her next memory is of being awake and feeling her arm around the baby with

[10] B 16
[11] Exhibit B7

the child's body up against her. Yumiko was lying on her side with the baby's face below her breast. She moved the baby up to feed her. At this stage a nurse came into the room and suddenly took Arisa away. It was about 6.45am and Yumiko realised then that she must have been asleep. She recalls another nurse coming into the room and starting to cry as she told Yumiko the baby was not well. She was offering comfort to Yumiko. Yumiko asked to see her child and she was assisted into a wheelchair and taken to where the baby was being resuscitated. Her husband arrived shortly after this. They visited the baby in intensive care. The next day, on 18 August 2005 a decision was made to turn off the respirator.

22. Yumiko states that she was not warned of any danger to Arisa in having her in bed with her. Her husband, Phillip recalls that when he returned to visit on the first evening after Arisa was born, a nurse came in and helped Yumiko to breastfeed the baby in bed. There was no mention of a risk or any particular care to be taken in doing this. When he left that evening, the baby was back in the cot wrapped in a blanket. Yumiko was obviously tired. At the inquest, Mr Huber also pointed out that his wife was Japanese and in her experience, babies are cared for in nurseries after birth in hospitals. I infer from this information that as well as her extreme tiredness and pain, Yumiko probably had an expectation that Arisa would be cared for by the nurses in a nursery situation after birth.

23. Dr Diotto visited Yumiko on 18 August 2005 after a decision had been made to turn off the respirator. At this time Mr Huber was also present and questioned the hospital practice regarding babies being in bed with the mother. Dr Diotto recalled that her response was that it was not recommended but that it was not uncommon practice in the first few days. She recalls that Yumiko said she had been exhausted after the birth. Dr Diotto recalls her saying words to the effect that she was not in a fit mental state to be looking after a crying baby. The parents were given the name of Dr Devenish-Meares, the Director of Obstetrics and Gynaecology to discuss issues arising from the death of the baby. Information about the hospital's Psychiatric Liaison Service was also provided.

24. Dr Diotto's letter of referral and report back to the general practitioner summarised what had occurred as follows:

> *"The following morning on 17 August at 6.50am baby Arisa was found next to Yumiko in profound hypoxia. Immediate full resuscitation was undertaken for cardiorespiratory arrest and baby Arisa was taken to intensive care unit. Following resuscitation Arisa remained well perfused but EEG recordings and non reactive pupils were compatible with the criteria of brain death. Life support was turned off on the 17th August at 12.50 after prolonged discussion with neonatologist,*

Dr Tudehope and Yumiko and Phillip. Baby Arisa passed away at 13.43 that afternoon."[12]

25. Deborah McKay is a registered nurse endorsed to practice nursing since 1984. At the time of Arisa's birth, Ms McKay was working permanent part time. She worked the night shift over 16 to 17 August 2005. She had responsibility for approximately ten women and four babies overnight. Some women were still waiting for the birth of their babies and others had given birth. There was one post caesarean mother. She was working with a second registered nurse, Ms McEvoy. Nurse McKay recalls listening to the taped handover at the start of the shift although she cannot recall the contents. She remembered overhearing that baby Arisa was on four hourly observations. This was due to the mother having a temperature.

26. She recalls attending to Yumiko for the first time about 11.30pm when she required antibiotics. Yumiko was awake and the baby was in the cot. She checked Yumiko's identity before giving her the antibiotic. She saw that Yumiko was in pain and she discussed pain relief with her and then went to obtain that medication. This was recorded on the chart at midnight. Nurse McKay's recollection is the baby was settled and asleep. Yumiko needed various matters attended to at this time.[13]

27. Ms McKay performed a set of observations on the baby around 2.30am. She saw that Yumiko was awake and looked exhausted. Yumiko said her pain was less. The baby appeared to be waking up. The baby's observations were within normal range although her temperature was low at 36 degrees. She asked Yumiko whether she wanted to feed the baby. Yumiko said yes. She could not sit up as she was still very tender after the birth. The baby was placed by her side as she lay on her right side. The baby commenced feeding successfully. Nurse McKay attended to other patients and returned about fifteen minutes later around 2.45am. The nurse wrapped the baby in two blankets and put her back into the cot. Yumiko's sheets were changed. The nurse recalls she left about 3.00am.

28. Nurse McKay's next recollection is that the buzzer sounded from Yumiko's room. Both nurses responded. They heard a baby crying as they arrived and found Yumiko in her bed holding the crying baby. Yumiko held the baby out to Nurse McKay. The nurse settled the baby. Nurse McKay does not recall any conversation with Yumiko at this time. She estimates the time was about 3.30am. In her statement, Nurse McKay said she could not recall whether she put the baby back in the cot or with the mother. She recorded the observations at 3.30am before leaving the room, taking with her the drug chart as Yumiko was due for antibiotics at 5.00am.

[12] Exhibit B2, page 9
[13] paragraph 12 exhibit B11

29. Nurse McKay also stated that she came back to Yumiko around 4.30am, checked her arm band and gave her antibiotics. This was administered intravenously over twenty minutes. She said the baby was "*still beside her in the bed*". The baby's temperature had improved (i.e. risen) to 36.8. This entry was recorded. She asked Yumiko if she wanted to try to breastfeed again. The baby was sleepy so she was laid down again next to the mother. Nurse McKay then left to check a dose of antibiotic with the second nurse before returning and administering this to Yumiko. There is then a record of emptying the urinary catheter at 5.00am.

30. Nurse McKay recorded the verbal hand over to the day shift at around 6.00am. She checked the caesarean patient and finally Yumiko before completing her shift. This was about 6.45am. When she entered the room she could immediately see that there was something wrong with the baby who looked very pale. The mother appeared to be asleep on her back. The baby was wrapped in the blanket also on her back. Nurse McKay says she picked up the baby and ran with her to the corridor towards the resuscitation trolley. She alerted Nurse McEvoy who took Arisa from her and placed her on the resuscitation trolley. Nurse McKay went immediately to the staff room to get help as the new shift had arrived. Nurse McKay was shocked and distressed and was not involved in the resuscitation. She did go to Yumiko and offer her support.

31. In a subsequent statement by Nurse McKay she states she still cannot independently recall whether Yumiko was awake at 4.30am when she administered penicillin. She has rationalised though that Yumiko must have been awake because her usual practice is to check the name of the patient by asking them their birth date and checking their arm band. She said it was also her usual practice to put the baby back in the cot if the mother was asleep with the baby in the bed.

32. This appears to be rationalisation after the event. When Yumiko had buzzed at 3.30am and both nurses had come in, the mother had the baby in bed with her. The baby was crying and the mother was clearly indicating by her actions that she needed help. The baby was settled and returned to the mother's bed. This is the inference I draw from Nurse McKay's evidence because she says she cannot remember whether she put the baby back in the cot or with the mother. The next time she came in, she recorded the baby was still in bed with the mother.

33. I am therefore not satisfied that the nurse's invariable practice was to remove the child and place the child in the cot when the mother was asleep. The nurse clearly had a lot of other responsibilities with other patients that night. She simply did not have the time to sit with the mother until the end of a feed and then replace the child in the cot. Nurse McKay also admits in her second statement that she was unaware of the Mater Hospital Policy Number MHS_WCH_W_N_025

named ‘Breastfeeding baby with mother in postnatal ward’. She says she was unaware of the policy in place at the time stating that 15 to 30 minute observations were required of a mother breastfeeding in bed, and more frequently if the mother had been sedated. Nurse McKay was aware in a general nursing sense of the importance of such monitoring but was unaware of the specific time frames.

34. Although Nurse McKay says she would not have left the baby in bed with the mother at 4.30am if she had thought the mother might fall asleep, with hindsight, it appears inevitable that Yumiko would fall asleep. The record of occasions when she was necessarily attended to gives very little opportunity for sleep. She was in pain and had little or no sleep the previous night during labour.

35. Nurse McKay emphasized that there was no designated time for keeping informed of updated policies as a nurse. She stated she would have to do this in her own time. She had not kept up to date. She said she had not received training at the time of her second statement in December 2006 but has received training subsequently. There was however documentary evidence that she had attended educational sessions including breastfeeding on 6 April and 10 April 2006.[14]

36. This emphasizes the vital importance of requiring and enabling all staff to keep up to date with changing policies, especially related to patient safety. The policies and pamphlets in evidence in this inquest appear to be thorough and appropriate in identifying risks and putting into place plans and responses to manage these risks. What was missing was the requirement and resources to enable all staff to be trained and backed up with assessment and audit to ensure standards and practices were maintained. I have no doubt that Nurse McKay is a caring and experienced nurse. On this night however, the particular risk to the baby was not appreciated given the mother’s extreme tiredness.

37. Nurse McKay also commented that if monitoring and recording of all mothers who were bed sharing with their babies is to really occur then a significant increase in staffing levels is required.

38. It was unusual that four hourly observations had been ordered for baby Arisa. Usually babies returned to the ward with their mothers are treated as “well” and only basic observations are taken but Arisa’s mother had a temperature and so extra precautions were being taken.

39. Nurse McKay confirmed that at the time she was unaware of the Mater Hospital Policy in place at the time.[15] This was available to all staff via the intranet.

[14] Exhibit B13A
[15] page 25, line 25

40. Nurse McKay agreed that it would be helpful to have a tick box on the chart which would record the time and location of baby on entry and exit to the room. It was quite clear from her evidence that, whatever the official "policy", mothers did feed their babies in bed. Nurse McKay agreed that there was an interval from about 5.00am to 6.45am between her last two visits to the room.

41. Nurse McKay indicated that she tried to the best of her ability to check mothers who were feeding babies in bed. If the mother had fallen asleep, she would place the baby back in the cot. It was her practice at the time to check on mothers irrespective of the fact that she was unaware of a requirement to check within a set time range.

44. Under cross examination, Nurse McKay agreed that she had in fact given the Flagyl medication earlier than recorded and the penicillin was in fact given at 5.00am not 5.30am. She explained this was due to her huge workload not because she was lazy. She also confirmed that she did not come back and check on the baby between 5.00am and 6.45am.[16] It was also clarified that at 3.30am, Yumiko had buzzed the staff for assistance after she had herself picked up the baby from the cot. She offered to assist the mother to attempt to breastfeed in bed. She was able to say she considered the mother to be sufficiently alert given her interaction with her. She acknowledged she did not give the mother any warning of possible risks of accidental suffocation of the child.

45. She agreed that at 5.00am she did not make any assessment of whether the mother was conscious enough to breastfeed the child nor did she make observations at 15 to 30 minute intervals. No notes were made in the chart about breastfeeding. The practice was only to make a chart entry if there was something out of the ordinary.

46. Nurse McKay was a very experienced nurse with twenty three years experience as a midwife. Nurse McKay was clear that she knew about the risks of co-bedding and Sudden Infant Death Syndrome (SIDS) and was always alert to these.[17] She said she was well aware of the risk of SIDS and would not have left the baby with the mother had she considered there was a risk. She agreed with the suggestion that she had formed a professional judgment that it was safe for the baby to be in bed with the mother.

47. She also agreed that where a person is verbally complaining of pain, as Yumiko was, they are in effect demonstrating they are not sedated. In answer to a question from Mr Rebetzke, Nurse McKay said that Yumiko was not under the influence of a drug which caused drowsiness.[18] Mr Rebetzke asked her whether Yumiko was excessively tired, to the point that would affect her ability to respond to

[16] page46, line 45-46
[17] page 52, lines55-60, page 53, lines1-2
[18] page 66, line 48

her baby. She said no. I am not convinced by that answer given her earlier evidence acknowledging that Yumiko was exhausted and that she had repeatedly pressed on the buzzer for assistance with the baby. The overall impression from all of the evidence is that Yumiko was very tired. This was to be expected considering what she had been through both that and the preceding night. I also note Nurse McKay's evidence that she had not read the chart in detail and was unaware of the nature or duration of labour experienced by Yumiko.

49. I acknowledge that Nurse McKay was indeed having a busy and demanding night due to the overall number of patients and the needs of a patient who had a caesarean.

50. It was also drawn to my attention that it was not seen as a night duty nurse's responsibility to undertake the general educative role with new mothers. There is insufficient staff rostered at night and it is not an appropriate time to be performing such a duty. I accept this generally but this does not absolve night staff from all educative responsibility especially when it is a first time mother who may only recently have returned to the ward. The obligation remains for staff to inform themselves about the particular patient from the chart. The nurses play a crucial role in explaining and demonstrating appropriate and safe handling of the baby.

51. Nurse McKay also indicated that despite changes in policy which now require recording of bed sharing in the notes; this was often not done again due to work pressures. In her experience such information was not "handed over" at the end of a shift to the incoming shift. These are matters for the hospital's attention. She acknowledged it was information that could be handed over at the end of a shift. She also indicated that it was only four days prior to the inquest itself that she had read the new policy about co–bedding. I understood from her evidence that the common understanding was that bed sharing remains "not uncommon" and it is considered a practice with some positive benefits.

52. The evidence is clear that the hospital has certain policies in place that set out risks of bed sharing and responses to minimise the risks. The first issue is ensuring that all staff access and read the policy and then comply with it. It is a question of whether or not the common practice has changed sufficiently in compliance with the new policy. This can be addressed through training, demonstration, leadership and ultimately audit. Consequences should then flow if compliance is not met.

53. Professor Tudehope gave evidence to the inquest. He is a Consultant Paediatrician and Director of Neonatology at Mater Health Services. He examined baby Arisa on 18 August 2005 at about 10.00am. His team had been involved in resuscitating Arisa. Professor Tudehope checked results of testing and confirmed that a septic cause of death

was excluded. Metabolic testing excluded this area as a potential problem. The heart had also completely recovered after resuscitation, excluding this as a possible cause of the hypoxic event. The heart was normal on chest x ray review. Mr Huber expressed his concern that the likely explanation was suffocation while the baby was in the bed. Professor Tudehope said in his statement "*I told Mr Huber that the evidence of an hypoxic episode and the recovery in some vital function was consistent with this possibility*". He explained this meant an acute lack of oxygen, of quite a long duration would have that effect.

54. The cause of death certificate signed by Professor Tudehope indicated "*sudden unexpected death in infancy with hypoxic episode as the underlying cause*". This is a generic term where the death cannot otherwise be explained in medical terms. In answer to questions raised by counsel for the family, Professor Tudehope agreed that he had recorded in the report to the coroner "*breastfeeding in bed on post natal ward with mother*". He agreed that it would be correct to add "*co-bedding or sleeping with the mother*" as a contributing factor.

55. Professor Tudehope thought it would be extremely unlikely that an autopsy would have found a cause of death other than suffocation.

56. Professor Tudehope agreed that the incidence of SIDS has declined from 2 per 1000 to .4 per 1000. These deaths are categorised very precisely by way of excluding other explanations and a full pathological review. As these figures fall there is increasing focus on issues such as co-bedding.

57. The current policy on breastfeeding numbered MHS_WCH_W_N_025 became operational from 12 April 2006. Professor Tudehope noted he did not consider the policy had been well distributed to medical staff as compared to nursing staff. The policy is relevant to both. Medical staff are notified of new policies as they occur. SIDS in-service education training is available to all staff several times a year.

58. Professor Tudehope acknowledged that on his reading of the chart, after the event, Yumiko's tiredness may have contributed to the incident. He also acknowledged the incident occurred in the context of an emphasis on promoting breastfeeding. He agreed there was some conflict in promoting breastfeeding in bed and managing risks associated with the practice.

59. There was comment that the mix and numbers of patients were important considerations when managing this issue safely. In the past, the practice was for a mother to stay four or five days in hospital and a nursery was available to care for the babies should the mother be very tired. Professor Tudehope did not consider that staff levels had been maintained nor nurses transferred from the nursery area back onto wards when the nurseries closed. Professor Tudehope said:

"I think the staff patient ratios have been really extremely tight and inevitably, when that's the situation, some shortcuts will be taken."[19]

60. He acknowledged the nurses work extremely hard and generally do a good job but some of the recommendations must be difficult to comply with. The separation of mothers from babies in the past was not beneficial for optimum bonding although it may provide more rest to very tired mothers.

61. Today the practice is that babies are with their mothers who only stay in hospital two point one days. Professor Tudehope lamented that community child health services had declined leaving a gap in services and support. He also noted that there are a great number of issues that need to be addressed with new mothers in the forty eight hours she and the baby are in the hospital. He identified cost factors as well as the view that childbirth is a normal process generally resulting in a "well" mother and child. These factors together have resulted in reduced periods in hospital. Professor Tudehope would like to be able to maintain the flexibility of keeping a mother and child in hospital for a longer period if there was any indicator that this would be beneficial.

62. He was taken to the old policy on breastfeeding [20] and the new policy.[21] Counsel for the family raised concern that the new policy did not include a requirement to explain positioning for breastfeeding nor explanation of SIDS guidelines with respect to breastfeeding. Professor Tudehope indicated this information could be found in separate SIDS information brochures given at discharge as well as information given during the hospital stay. He agreed that where a mother was breastfeeding in bed, there needed to be supervision at regular intervals. One hour and forty five minutes was too long and did not comply with the requirement in place at the time.

63. He agreed it was possible that sedating opiates could be added to an epidural for additional pain relief. He did not consider that post epidural blood levels would be particularly high. He agreed that pethidine would have an effect of drowsiness. However he clarified that if a person was awake and asking for further pain relief it was an indicator they were not currently sedated.

64. He also recalled there was a debriefing for staff after this death.

65. The most significant contraindications for co-bedding were for very obese women and women who have been using drugs, alcohol or cigarettes.

[19] page 86 line 10
[20] AM4
[21] AM10

66. He said the evidence of a very vigorous resuscitation being required and a ph level of 6.63 indicated a very profound hypoxic event. The precise time period could not be calculated.

67. Nurse Patricia McEvoy gave evidence. She is a clinical nurse and midwife. She recalled being busy over the night of 16 August 2005 with up to ten new mothers. She was team leader on that shift. She was aware there was a policy in place in August 2005 concerning co-bedding.[22] In addition, she said there were SIDS guidelines also given to patients. This material was available to staff on the computer system.

68. The other very enlightening response she gave was:

> "*Well you see, we've got about forty beds. Baby's the mother's responsibility. If it's a caesarean we do a lot more care*."[23]

49. She was also dismissive of the notion that Yumiko might still have "*heavy legs*" after an epidural and therefore not yet ready to walk around. Three hours was her estimate of any lasting effect from the epidural. She acknowledged that if it was an instrument assisted birth some women may be in more pain and so the catheter is left in. Her expectation was that mothers, even after instrument delivery would be responsible for putting their own babies in the cots.

50. She acknowledged the new policy and in-service training. She said the new SIDS brochures were explained to nursing staff. She worked on all shifts. She agreed it would be harder for permanent night shift staff to access training. A solution would be to schedule it at the end of night shift as had sometimes occurred in the past.

51. Her response to questions about supervision of breastfeeding every fifteen to thirty minutes indicated she thought this applied to mothers after caesarean section. When pressed on this issue she acknowledged that the policy applied to all mothers not just those that had caesareans. The SIDS information was raised first with the mother through the antenatal programs.

52. She explained that once a nurse is qualified there is an annual performance appraisal as well as in-service training.

53. Anne Moore, the nurse educator at the Mater Health Services provided information and evidence to the inquest. She commenced work in this role at the hospital on 8 August 2005, in the weeks before Arisa was born. She reviewed the system in place for training nurses and associated tasks and policies. She co-ordinated the review that

[22] AM4
[23] page 101 line 41-43

occurred after Arisa's death. There were particular areas of interest and policies were developed to respond to the following issues:

(1) Babies at risk of infection;
(2) Mothers bed sharing with babies;
(3) Thermo-regulation of babies;
(4) Adequacy of chart documentation; and
(5) Awareness of limits on scope of nursing practice.

54. In particular, I note the review of the policy on bed sharing and co-sleeping arrangements. The policy was developed balancing the potential risks to a baby in sharing a bed with the positive benefits of close contact with the mother, especially to facilitate breastfeeding. It also took into account variable social and cultural attitudes to the practice**.** Bed sharing was identified as the practice of the mother having the baby in bed with her for breastfeeding and requires the mother to be awake. In contrast, co-sleeping is the situation where mother and baby are in the same bed and either or both are asleep. If the mother falls asleep when breastfeeding in bed, it is then to be considered as co-sleeping. The policy acknowledged that it would be impossible to prevent co-sleeping absolutely but it was to be discouraged. The new policy also identified when it was not safe for breastfeeding in bed, for example:

Where the mother:-

(a) is sedated;
(b) is extraordinarily tired;
(c) has a condition that may alter the state of consciousness, eg, epilepsy;
(d) has a condition that may affect spatial awareness;
(e) or baby has fever;
(f) or baby has illness;
(g) is very obese;
(h) has multiple babies;
(i) is a smoker;
(j) is a known substance abuser;
(k) is known to consume alcohol;

55. I am satisfied that these guidelines are the result of informed expert input and consideration. The policy was distributed to staff via the intranet, in-service training and hard copy. New staff receive orientation including this information.

56. According to hospital records, Nurse McKay attended the in-service training regarding the new policies on breastfeeding and co-sleeping and bed sharing on 6 and 10 April 2006. The difficulty was that she could not recall having read the policies until four days prior to inquest. The new policies are less prescriptive in directing that nurses attend within strict time frames, acknowledging that there is an area of discretion depending on circumstances.

57. The SIDS information is available in antenatal classes. This is then re-enforced and demonstrated by the nurses during the period in hospital. There is provision in the documentation to record that advice has been given about these issues before discharge home.

58. Ms Moore's evidence overall showed the responsibility undertaken by the hospital in educating and assisting the mother in the short period from birth to discharge. It was predicated on antenatal care being available and accessed by women, in particular access to information about SIDS. The evidence based, best practice model supports babies being in the same room with their mothers to maximise bonding and facilitate breastfeeding. It also showed the continuous and variable demand on staff to move between rooms and patients of varying acuity to attend to their needs and also deliver the important educative information.

59. Sandie Bredemeyer has twenty six years clinical experience in nursing and neonatal nursing. She gave expert evidence in this inquest. She was a member of the NSW Child Death Review Team and the Sudden Unexpected Death in Infancy Subcommittee.

60. She informed the court that in 2004 there were 59 such unexplained deaths in Australia. The trend in such deaths is thankfully, declining. This positive trend is attributed to successful education about placing babies on their backs to sleep. SIDS deaths are designated on the basis of excluding a wide range of explanations and after thorough pathological assessment. Other deaths where the cause of death cannot be determined but a SIDS definition cannot be established are recorded as sudden unexplained deaths in infants (SUDII). This second category of deaths of children under 12 months of age includes deaths of children in co-sleeping situations.

61. In 2005, the NSW figures for children's deaths under twelve months categorised as sudden unexpected deaths in infancy was 48. Of that number, 27 babies were found at the time of death in bed with an adult person. Two of these deaths occurred in hospital.

62. Ms Bredemeyer was aware of at least one death in hospital in 2006 of an infant while the mother was breastfeeding in a chair. The child became asphyxiated. She was also aware of at least two other incidents in hospital where the child was being breastfed and became hypoxic but was successfully resuscitated**.**

63. Ms Bredemeyer noted the positive emphasis placed on early skin to skin contact between mother and baby. This can help warm a baby and also facilitate and establish good bonding as well as the foundation for successful breastfeeding. The issue is to properly identify risks and manage these risks while still facilitating positive benefits of bonding and breastfeeding.

64. Ms Bredemeyer noted that the earlier policy of checking every fifteen to twenty minutes was unlikely to be complied with on a busy ward. The emphasis of the new policy was on the importance of monitoring and checking on an individual needs basis, having regard to individual risk factors. She acknowledged the wisdom of the Mater Hospital's starting point that co-sleeping was contraindicated. If the mother or baby has fallen asleep during breastfeeding then the baby should be removed. The role modelling demonstrated by nurses in hospital is vitally important to educate mothers before they go home with their babies. She emphasised the need to broaden the education packages to be directed to nurses, general practitioners, and anyone dealing with new mothers in the first twelve months.

65. She confirmed that a nurse caring for ten women and four babies in a shift would be very busy.

66. The hospital policies have been reviewed by a wide group. Independent comment from Ms Bredemeyer was positive. She affirmed the importance of ongoing education as most important, commencing with antenatal care. A multidisciplinary approach to care and also to education of medical and nursing staff is also a positive response.

67. Ms Bredemeyer reviewed the medical records for Arisa Huber and her mother. The summary is documented at page 3 of Ms Bredemeyer's report. [24] She noted in particular the long period (21 hours) of rupture of the membranes prior to birth which predisposes the mother and baby to elevated risks of infection. The mother developed a fever after birth. Ms Bredemeyer would have expected in the circumstances some follow up testing to detect any infection in the baby via ear swabs. This should have been ordered by the medical staff. In fact there was no evidence of infection in the baby, as confirmed by intensive care tests subsequently.

68. Ms Bredemeyer's assessment was that the individual workload was extremely heavy. I note also the remark of team leader, Nurse McEvoy, who also considered the workload heavy. Ms Bredemeyer considered this too heavy in the context of supervising mothers with babies in bed for breastfeeding. Given the volume of work, it is not surprising that Ms Bredemeyer also remarked on the minimal documentation of care in the record. However, it seems that ticks in the care-plan have superseded written notation in the patient chart.

69. There was no evidence that there was any warning given to Yumiko Huber about any risk of feeding in bed.

70. Ms Bredemeyer noted the longstanding problem of ratio of nursing staff to patients to suitably supervise new mothers. Nurses have a vital

[24] Exhibit D1

educative role to parents in instructing safe ways to breastfeed in bed. The responsibility of education is of course also shared with other health professionals.

71. She also noted the extra demands on staff with increased numbers of mothers with higher needs (eg very young, drug affected or mothers suffering mental illness). She also drew attention to the fact that mother and baby are counted as one patient which reduces an appreciation of the volume of work and care required.

72. In light of the evidence from this inquest I add my support to the proposed national review of the ratio of patients to staff where babies are counted as patients rather than being grouped with the mother as one patient. I note that the acuity of patients is the ultimate relevant issue but overall numbers of patients are important to issues of education and care of mothers and safety of babies.

73. Ms Bredemeyer emphasised the importance of audit and multidisciplinary approaches when introducing new policies. She noted very positively the warm, sensitive and open discussion between the hospital staff and the Huber family of the tragedy that had occurred.

Summary and comments pursuant to section 46 Coroners Act

74. The mother had a very disturbed night on the evening of 16-17 August 2005 in the postnatal ward. This followed the previous night's labour and early morning admission. The baby was born late in the afternoon of 16 August 2005. The mother was sharing a room with another mother with a new born, separated by a curtain. The babies slept in cots next to their mothers' beds.

75. The mother had developed a fever and was receiving antibiotics. The policies in place at the time indicated the circumstances required the further precaution and testing of the baby for signs of infection. Those procedures were not instigated. Testing afterwards excluded infection as a causative or contributing factor to the baby's death.

76. The mother received various drugs in the period leading up to the birth. After the birth she received more medication including pain relief for significant pain. Although there was no evidence to make a finding that she was sedated, there was evidence she was clearly "exhausted" as stated by the nurse. The number of interruptions during the night precluded any opportunity for restful sleep.

77. The evidence was also clear that no specific warning was given to the mother before the baby was placed with her for breastfeeding in bed. This was at the instigation of the nurse, no doubt facilitating the opportunity for early skin to skin contact between mother and baby and to commence breastfeeding. This was the mother's first baby. Although there are widely accessible programs for education and

preparation for a mother before birth, there should have been some advice given at the time by the midwife to take care and call for assistance if either mother or baby was becoming sleepy.

78. The evidence is clear that the mother and baby were in the mother's bed between 5.00am and 6.45am, a period of one and three quarter hours, without any supervision.

79. I accept that the nurse was busy during the shift and was not avoiding work in not returning during this time. The nurse's evidence was that she was well aware of the risks of SIDS but she was not specifically aware of the policy in place at the time regarding protocols where a mother and baby were in bed for breastfeeding. At the time, this required monitoring at fifteen to thirty minute intervals. The protocol was not complied with.

80. The baby was discovered to be not breathing and without a pulse at 6.45am. The baby was vigorously resuscitated but then required ventilation and intubation. The baby died on 18 August 2005.

81. In light of the evidence from this inquest I add my support to the proposed review of the ratio of patients to staff where babies are counted as patients rather than being grouped with the mother as one patient. I acknowledge that numerical ratios are simply an element of evaluating appropriate staffing levels and that the critical issue is assessment of individual patient's acuity.

82. There was evidence that the nurse attended an in-service training session on the new breastfeeding policy on 6 April 2006 and the bed sharing and co-sleeping policy on 10 April 2006, which I accept. However, the nurse's evidence was that she had not read the policy through until four days prior to the inquest. This emphasizes the need for audit and review processes to check that training is being effectively delivered and is being translated into appropriate action on the wards.

83. There was considerable doubt whether the nurse had undertaken training or accessed the 'old' policy. She spoke of the difficulty as a permanent night staff worker in being able to attend training sessions. Clearly there remained an obligation on her to keep informed of policies via the intranet. The nurse was however fully aware of the risk of SIDS.

84. The weight of evidence was that there was a strong likelihood that either mother or baby would fall asleep in the period between 5.00am and 6.45 am given the interrupted night and state of exhaustion of the mother after the previous night's labour and subsequent birth.

85. The nurse was very experienced and there was nothing to suggest she was uncaring, lazy or incompetent, simply that the pressures of work on that shift that night meant that she did not get back to the mother

and baby. She said she exercised her judgement in considering whether it was safe for the baby to be in bed with the mother which I accept. The problem however was the length of time the child remained in bed with the mother unobserved.

86. I note the practice of care pathways being documented with various prompts and guides. These have taken over from the previous practice of detailed chart notes. Some extra cues may assist staff and family members. Ms Bredemeyer referred to “cot cards” placed externally on cots reminding parents and staff of risk factors and best practice to promote the safest environment for the child.

87. It would also be helpful to have an easy to use section in the care chart document where a staff member can record the time and physical location of the baby on each occasion of observation/interaction with the mother. This could also assist in promoting safety and reminding staff of the issue.

88. Whilst acknowledging cultural and personal practices, it appears that there is a risk where either mother or baby are asleep in the same bed but much is to be gained by breastfeeding in bed provided safety can be assured. Safety requires making an informed choice. Some factors must always be considered too risky for an infant to be in bed with an adult. These include where the parent is alcohol, drug or medication affected or exceedingly tired. Obesity in the parent can also create a risk. A parent who is a smoker has also been demonstrated to increase risk of death in the baby.

89. The safest option appears to be the position adopted by the Mater Hospital which does not recommend co-sleeping but which supports breastfeeding, including in bed, where it is safe to do so.

90. It is important to promote and support the benefits of breastfeeding and skin to skin contact. At the same time, the safety of a child and reduction of the risks of accidental suffocation must be paramount. Hyper linking the policy documents for staff so that they associate and consider both the risks and benefits of the baby being in bed with the mother would be helpful.

91. Education of parents and all medical and nursing staff is of critical importance. The process must commence in the community before the child is born and be reinforced and physically demonstrated in hospital. Resources must be provided and maintained in the community sector to support and reinforce the education provided in hospital. These resources must be available both antenatally and postnatally. They must be broadly accessible and inclusive of different cultures and languages.

92. This baby died in hospital but there have been other similar deaths in Queensland in recent years where although no apparent cause of

death can be determined, the baby was sharing a bed with a parent during sleep prior to being found deceased. It is vitally important for safety that the education and support of families with infant children is continued. Information, advice and guidance needs to be available to families and resources made available to support this ongoing process.

93. For this family where the child was their first born child, her death was a particular tragedy. I extend sincere condolences to the family.

94. The formal findings are that Arisa Huber died on 18 August 2005 in the Mater Mothers Hospital, Raymond Terrace South Brisbane. The cause of death was sudden unexpected death in an infant which was due to an hypoxic episode. This occurred while the baby was in bed with the mother.

Thank you to counsel assisting and representing parties in this inquest. Although it will have caused further grief to the family the inquest is important in identifying risk factors for families with young babies, particularly in the community, in the hope that other deaths might be prevented.

Chris Clements
Deputy State Coroner
6 November 2007