Coroners Act 1996
[Section 26(1)]

Western *Australia*

RECORD OF INVESTIGATION INTO DEATH

Ref: 35/14

I, Sarah Helen Linton, Coroner, having investigated the death of ***Baby C (name suppressed)*** *with an inquest held at the* ***Perth Coroner's Court, Court 51, CLC Building, 501 Hay Street, Perth****, on* ***30 September – 10 October 2014****, find that the identity of the deceased person was* ***Baby C (name suppressed)*** *and that death occurred on* ***12 February 2010*** *at* ***Fremantle Hospital*** *as a result of* ***Group B Streptococcal infection and meconium aspiration with early bronchopneumonia*** *in the following circumstances:*

Counsel Appearing:

Ms K Ellson assisting the Coroner.
Mr D Harwood (State Solicitor's Office) appearing on behalf of Metropolitan Health Services.
Mr M Cuomo (Legal Aid) appearing on behalf of Theresa Clifford.

SUPPRESSION ORDER

The names of the deceased, the deceased's family, and any identifying information are suppressed. The deceased is to be referred to as Baby C.

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INTRODUCTION

1. At 7.25 pm on 12 February 2010, Baby C was born after a prolonged labour. He was born at home, as planned by his parents. Assisting at the birth were two independent registered midwives. At birth, Baby C appeared normally developed and healthy. However, sometime within an hour and half of his birth, Baby C began grunting and struggling to breathe. One of the midwives began to ventilate him and a decision was made to take him to Fremantle Hospital in the family car, as it was only a short distance away.

2. Baby C arrived at Fremantle Hospital shortly after 9.00 pm. Upon arrival he was in respiratory arrest. Despite intensive resuscitation efforts by the Paediatric Team at Fremantle Hospital, Baby C could not be revived and he was pronounced life extinct at 10.10 pm, less than three hours after his birth.

3. In accordance with usual coronial procedure, the death was reported to the Office of the State Coroner and a post mortem examination was conducted. The forensic pathologist who conducted the post mortem examination formed the opinion the cause of death was Group B streptococcal infection and meconium aspiration with early bronchopneumonia.[1]

4. I held an inquest into the death of Baby C, as part of a joint inquest into three deaths, at the Perth Coroner's Court from 30 September to 10 October 2014. All three deaths involved babies born at home in circumstances that were contrary to recognised standards and guidelines for home births in Australia.

5. A primary focus of the inquest into the death of Baby C was to clarify the circumstances in which he was born, as only limited information had been provided to the coronial police investigators by the midwives who attended the birth and the parents of Baby C prior to the inquest.

[1] Exhibit 1, Tab 6.

Evidence was sought as to what information was provided to Baby C's parents prior to their decision to attempt a home birth for Baby C, and whether any consideration was given to transferring Baby C's mother to hospital during the birth, when it became apparent it was a prolonged labour and her Group B streptococcal status was unknown.

6. Oral evidence was given at the inquest about the factual circumstances of the birth and death of Baby C by the deceased's mother and father, the two midwives who attended the birth and a forensic pathologist. In addition, expert evidence about general midwifery and obstetric practices, and a review of the circumstances of this birth, was given by Dr Christopher Griffin, a Consultant Maternal Foetal Medicine Specialist at King Edward Memorial Hospital for Women (KEMH) and Dr Christine Catling, a qualified midwife and Lecturer in Midwifery at the University of Technology, Sydney.

PAST OBSTETRIC HISTORY OF BABY C'S MOTHER

7. Baby C's mother had a previous pregnancy in 2005. Baby C's mother considered the option of home birth before visiting the Family Birth Centre at KEMH (Birth Centre).

8. The Birth Centre is described on the Department of Health website as a "home-like maternity care facility." It is part of KEMH and is staffed by registered midwives who work as a team with general practitioners and obstetricians and paediatricians from the hospital. The midwives at the Birth Centre are involved in the antenatal care, birth at the centre and postnatal care at home for a short period. The Birth Centre cares only for healthy women deemed 'low risk' who anticipate a normal pregnancy and birth.[2]

9. Baby C's parents decided the Birth Centre "provided a balance of care from known midwives, a calm and

[2] http://www.kemh.health.wa.gov.au/services/fbc/index.htm, accessed as at 4.6.2015.

comfortable birthing environment and proximity to obstetric care, if needed."[3] Their intention was for the birth of their first child to take place at the Birth Centre.

10. The pregnancy progressed normally and was monitored by the midwives at the Birth Centre. However, towards the end of the pregnancy the baby was found to be in a breech position and Baby C's mother developed a condition called Obstetric Cholestasis (a rare complication of pregnancy involving the liver). Due to these two factors, the pregnancy was now categorised as 'high risk'. As the Birth Centre only cares for healthy 'low risk' women anticipating a normal pregnancy and birth, Baby C's mother could no longer attend the Birth Centre and her care was transferred to KEMH.[4] Baby C's mother found the loss of continuity of care and control over the manner of birth very distressing.[5]

11. After extensive monitoring, ultimately the birth was induced at 39[1/2] weeks. When the induction failed, the baby (a healthy baby boy named A), was delivered by caesarean section.[6] After the birth, Baby C's mother had a bad reaction to the anaesthetic and was separated from her baby initially while in recovery.[7]

12. Baby C's mother described her experience of the birth of Baby A in hospital overall as "extremely traumatic".[8] After the birth, Baby C's mother experienced symptoms of Post Natal Depression and Post Traumatic Stress Disorder (PTSD).[9]

13. In 2009, four years after the birth of A, Baby C's mother saw Ms Lindy Temple, an experienced trauma counsellor. At that time her trauma symptoms were still intense and included sleep disturbance, frequent anxiety attacks, flashbacks, disrupted personal relationships and an intense fear of going anywhere near KEMH. She also

[3] Exhibit 1, Tab 16 [3].
[4] Exhibit 1, Tab 16 [4] – [6].
[5] Exhibit 1, Tab 16 [7] – [9].
[6] Exhibit 1, Tab 16 [10] – [16].
[7] Exhibit 1, Tab 16 [13] - [16].
[8] T 23.
[9] Exhibit 1, Tab 16 [16].

experienced an acute stress reaction on the anniversary of the birth each year. Baby C's mother had been unable to return to work since the birth due to her symptoms.[10]

14. While seeing Ms Temple for counselling, Baby C's mother made good progress. However, during her pregnancy with Baby C, she continued to be terrified of hospitals and medical interventions.[11]

15. Baby C's mother's experience of a hospital birth confirmed her pre-existing preference for a home birth and one-to-one midwifery care.

RESEARCHING BIRTH OPTIONS

16. An evidence-based review conducted at the Women and Infants Research Foundation at KEMH and published in 2011 found that women who planned home birth were more likely to be older, better-educated Caucasian women from more affluent socioeconomic backgrounds.[12] Dr Catling, a witness at the inquest who has done research into why women choose home birth, also gave evidence that the majority of women who choose to home birth in Australia are older, tertiary-educated, proactive women who do a lot of research before making their decision.[13]

17. Baby C's mother appears to fall into this category. It was apparent during her evidence that she was an intelligent, well-educated woman who devoted a lot of time and energy to educating herself about pregnancy and birth in the lead up to the births of her children.

18. After the birth of her first child and prior to conceiving again, Baby C's mother researched Obstetric Cholestasis and the birth options that were available after a caesarean, particularly vaginal birth after caesarean (VBAC).[14] For

[10] Letter from Ms Temple dated 16.9.2014, referred to at T 3.
[11] Letter from Ms Temple dated 16.9.2014, referred to at T 3.
[12] Dept of Health (WA), *Models of Maternity Care: Updated Evidence on Outcome and Safety of Planned Home Birth*. (2011) – Exhibit 8, Tab 24, 17.
[13] T 647.
[14] T 23; Exhibit 1, Tab 16 [18] – [19].

her research, Baby C's mother read books on birth, material on the internet, as well as talking to other women about their birth stories.

19. Baby C's mother understood that there was a risk of uterine rupture associated with a VBAC[15] but she "felt that had to be put in perspective"[16] against other risks of uterine rupture. Based on her research, she did not believe that birthing at home posed a high risk and she believed having a home birth would increase her chances of having a vaginal birth with minimal intervention.[17]

20. Baby C's mother also placed great emphasis upon continuity of care. She wanted an ongoing relationship with a midwife she knew and trusted and who would be there throughout the process of pregnancy, birth and the postpartum period.[18] She understood this was not available to her in the public hospital system, given her ineligibility to give birth at the Birth Centre or to participate in the Community Midwifery Program (CMP)[19] due to her previous caesarean section.[20] She also had concerns about the CMP, in any event, due to anecdotal accounts she had heard of women who had not received continuity of care when using the services of the CMP.[21]

21. In the circumstances, Baby C's mother considered her only option to ensure continuity of midwifery care was to hire an independent midwife.[22]

THE PREGNANCY AND BIRTH PLAN

22. Therefore, when Baby C's mother became pregnant with Baby C, more than four years after the birth of her first child, she had already decided that she wanted an

[15] T 23; Exhibit 1, Tab 16 [20].
[16] T 23.
[17] Exhibit 1, Tab 16 [20].
[18] T 24 – 25.
[19] The Community Midwifery Program is a publicly funded home birth program for women with 'low risk' pregnancies living in the Perth metropolitan region. It is managed by the Department of Health – See Exhibit &, Tab 2.
[20] T 24.
[21] T 25.
[22] T 24 – 25; Exhibit 1, Tab 16 [22].

independent midwife to support her through her pregnancy and home birth.[23] Her partner supported her choice as he believed they were more likely to have the kind of birth they wanted at home.[24] They appreciated that the pregnancy would be considered 'high risk' in a hospital setting due to the previous caesarean, but they did not believe there was a heightened risk unless the Obstetric Cholestasis reoccurred.[25]

23. Baby C's mother had previously met an independent midwife, Ms Sally Westbury, at a support group meeting for women who have had caesareans and are considering a vaginal birth.[26] Ms Westbury had helped Baby C's mother obtain her medical records for her first birth from KEMH and helped her to understand the notes.[27] Baby C's mother also knew friends in the area who had used Ms Westbury as their midwife and gave positive reports about her services.[28] She knew Ms Westbury at that time to be a qualified and registered midwife and believed she had significant experience in attending home VBACs.[29]

24. Ms Westbury gave evidence that she had a quite specialised practice at the time and regularly assisted mothers with post-birth traumatic stress disorder.[30]

25. As Baby C's mother believed Ms Westbury was the local independent midwife with the most experience in VBAC, she hired her for the birth of Baby C.[31] Baby C's mother understood that Ms Westbury would provide antenatal care, involving regular home visits and monitoring of both the baby and mother's health. Ms Westbury would also support Baby C's mother through the birth and come with her to hospital in the event of a transfer as a support person. She would also provide postpartum care to the mother and baby for up to 6 weeks after the birth.[32]

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[23] T 24.
[24] T 46; Exhibit 1, Tab 17 [4].
[25] Exhibit 1, Tab 17 [10].
[26] T 25, 71.
[27] T 25.
[28] T 25; Exhibit 1, Tab 16 [23].
[29] T 26; Exhibit 1, Tab 16 [23].
[30] T 119.
[31] Exhibit 1, Tab 16 [23].
[32] T 27, 30.

26. The first meeting between Baby C's parents and Ms Westbury took place early in the pregnancy and lasted over an hour.[33] The pregnancy record shows the date as 14 September 2009, 18 weeks' gestation.[34]

27. Ms Westbury took notes of the prior obstetric history and discussed the risk of uterine rupture.[35] She advised Baby C's parents that they should keep in mind that they would need 45 minutes to get to the hospital that could provide specialised care, should the need arise.[36] Ms Westbury described this timeframe as "just acceptable"[37] on the basis her practice was to transfer early rather than late. Ms Westbury's note records her view that Baby C's mother was well researched and educated about the risk and accepted this risk.[38]

28. Ms Westbury also gave evidence that she discussed Baby C's mother's PTSD and suggested she consult with a psychologist during her pregnancy which, as noted above, she did.[39] They also discussed informed consent and informed decision-making, which Ms Westbury explained means giving women the fullest information regarding the positive and negative outcomes relating to their choices and then supporting women in the choices they make.[40] In that regard, Ms Westbury referred Baby C's mother to the Cochrane Database of Systematic Reviews, the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) Guidelines and the United Kingdom Royal College of Obstetricians and Gynaecologists 'Green-top' Guidelines.[41]

29. Sometime after this booking visit, Ms Westbury says that she contacted Ms Theresa Clifford, another independent midwife, and informed her that Baby C's mother planned to have a VBAC at home and asked her to be the 'back-up

[33] Exhibit 1, Tab 16 [24].
[34] Exhibit 1, Tab 15A – 15B.
[35] T 46.
[36] T 78; Exhibit 1, Tab 16 [24].
[37] T 78.
[38] Exhibit 1, Tab 15B.
[39] T 71 – 72.
[40] T 72.
[41] T 72 - 73.

midwife' for the birth.[42] Ms Clifford does not recall such an arrangement being made, although she had met Baby C's mother during the pregnancy by chance at the clinic where she worked.[43] It was Ms Clifford's evidence that she did not become involved until she was called by Ms Westbury to attend during the birth.[44] Her standard practice when engaged as a back-up midwife in advance was to meet the parents before the birth, which she did not do in this case.[45]

30. As there is no suggestion that Ms Clifford had any contact with Baby C's parents prior to attending the birth (which she said she would normally do if she was the designated back-up midwife), nor gave them any advice or counsel in the lead up to the birth, nothing really turns on this discrepancy in the evidence. However, I note that it is supportive of Ms Clifford's version of events in that she was only enlisted as the back-up midwife during the labour.

31. The antenatal visits conducted by Ms Westbury were initially monthly then changed to fortnightly and then weekly as the pregnancy progressed. Baby C's mother recalls that Ms Westbury made notes at the meetings in the pregnancy record.[46] Two of the visits were with another midwife (not Ms Clifford), while Ms Westbury was on leave.[47]

32. Baby C's mother chose not to have any ultrasounds during the pregnancy as she approached each possible test on the basis of what information it would provide and she did not consider an ultrasound would give her information she couldn't obtain in some other way.[48]

33. Baby C's mother also chose not to see an obstetrician at any stage during the pregnancy, nor attend the 'booking-in' appointment at KEMH, which is customarily done in

[42] T 76.
[43] T 64 - 65.
[44] T 65.
[45] T 89 – 90.
[46] T 27; Exhibit 1, Tab 15A – 15C and Tab 16 [26].
[47] Exhibit 1, Tab 15.
[48] T 27 – 28.

case a hospital transfer is required during the home birth.[49] Ms Westbury made a note on 20 November 2009 that Baby C's mother had declined the booking, without further detail.[50]

34. Baby C's mother explained that she didn't want to engage with staff at KEMH as she had had "bullying encounters"[51] with obstetricians before and she felt they "might try to scare [her] with stories of uterine rupture."[52] She didn't feel that she would obtain any additional information from such a meeting or gain any advantage as she knew that if an issue did arise in labour, she could attend KEMH for obstetric care without having booked in previously.[53] Baby C's father expressed their approach as being that "midwives are experts in natural birth and the obstetrician is for when something goes wrong."[54]

35. Baby C's parents were also concerned, apparently based upon other parents' experiences, that seeing an obstetrician might lead the obstetrician to report Ms Westbury to the Nurses' Board for supporting a VBAC at home, which would jeopardise her capacity to continue caring for them during the pregnancy.[55] Ms Westbury, on the other hand, gave evidence that it was her usual practice to recommend clients book in at KEMH as, in the event of a transfer to hospital it made the process much smoother.[56] Therefore, it does not appear that this concern was generated by Ms Westbury.

36. Consistent with her general approach of avoiding unnecessary interventions during the pregnancy,[57] Baby C's mother also declined to have a Group B streptococcus (GBS) test.[58] Ms Westbury had directed her to the various obstetric guidelines and Baby C's mother

[49] Exhibit 8, Tab 22.
[50] Exhibit 1, Tab 15B.
[51] T 29.
[52] T 28.
[53] T 29; Exhibit 1, Tab 16 [27].
[54] Exhibit 1, Tab 17 [9].
[55] T 28; Exhibit 1, Tab 16 [27].
[56] T 74 – 75.
[57] T 38.
[58] Exhibit 1, Tab 15C – 4.2.2010.

also researched the subject independently.[59] She was aware that it was a vaginal swab to test for the presence of the GBS bacteria. She also knew that a positive GBS test in late pregnancy did not necessarily correlate with having GBS present at the time of labour.[60] Although Baby C's mother understood that GBS could pose a potentially fatal risk to her baby, she also understood from her research that GBS infections were rare and she had read a study that found GBS testing had not improved survival rates for affected babies.[61] On that basis, she chose not to have the test.

37. Ms Westbury gave evidence that she explained to Baby C's mother that if that remained her decision, in the case of prolonged rupture of membrane she was at increased risk of infection and antibiotics were recommended but the evidence as to the benefits of prophylactic antibiotics was ambivalent.[62]

38. If antibiotics were required, they had to be given intravenously. Although this can be done at home by a midwife after a prescription is obtained from a doctor in advance,[63] it is not commonly done by midwives in Western Australia and both Ms Westbury and Ms Clifford gave evidence they were not willing to administer prophylactic antibiotics at home.[64] Therefore, if Baby C's mother was to receive antibiotics during the birth their administration would have required transfer to hospital.[65]

39. Ms Clifford recalls being told that a discussion had taken place between Baby C's mother and Ms Westbury and Baby C's mother had declined antibiotics unless she had a temperature.[66] Ms Westbury gave evidence that she did have a plan in place to deal with a possible prolonged rupture of membranes (which would ordinarily involve the administration of antibiotics given the unknown GBS

[59] T 73.
[60] T 32.
[61] T 32; Exhibit 1, Tab 16 [29].
[62] T 73, 79.
[63] T 90 – 91; Exhibit 1, Tab 18, 4.
[64] T 74, 90, 626.
[65] T 74.
[66] T 90 – 91.

status of the mother) but the details of that plan were not explained by Ms Westbury[67] and her later evidence seems to suggest she did not place the same emphasis on this factor as an increase in temperature.

40. The pregnancy was healthy throughout. The baby, who had been presenting as breech, moved head down in good time[68] and there was no recurrence of the Obstetric Cholestasis.[69] Accordingly, Baby C's parents remained committed to the plan of a birth at home. There was an understanding between Baby C's parents and Ms Westbury that Baby C's mother's preference was not to be transferred to hospital, but if an emergency situation arose then hospital transfer would occur. Ms Westbury gave evidence that she would not have agreed to an arrangement where hospital transfer was not an option in the event of an emergency.[70]

THE LABOUR

41. Baby C's mother's waters broke at just over 39 weeks' gestation during the evening of Wednesday, 10 February 2010. She telephoned Ms Westbury, who told her to try and get some rest. Baby C's parents called Ms Westbury again later that evening because Baby C's mother was experiencing contractions and wanted her support.[71]

42. Ms Westbury went to their house and began to monitor the labour. Ms Westbury apparently took notes of what occurred during the labour and delivery. Ms Clifford recalled reading the notes and also gave evidence of making notes in the birthing record while Ms Westbury was resting later in the labour.[72] However, no notes were provided to the coronial police investigator[73] or to this court. Ms Westbury gave evidence that the last time she

[67] T 79.
[68] Exhibit 1, Tab 15C – 28.1.2010.
[69] Exhibit 1, Tab 16 [30].
[70] T 119.
[71] Exhibit 1, Tab 16 [31].
[72] T 63, 82.
[73] Exhibit 1, Tab 4, 4 – 5.

had seen the notes was at Ms Clifford's home[74] and they were now missing.[75] Ms Clifford told the court she did recall seeing the notes when having a 'debrief' discussion with Ms Westbury after the birth but she did not have them at the time she later spoke to police and she has no idea when she last saw the notes.[76] As a result, there were no contemporaneous notes available at the inquest of the labour and delivery, and the witnesses were reliant upon their memory of events.

43. Ms Westbury gave evidence that she monitored the progress of the labour and provided normal midwifery care. Ms Westbury timed contractions with her iPhone.[77] She took the maternal observations of temperature and blood pressure every four hours and noted no abnormalities.[78]

44. At one point, Baby C's mother's temperature rose slightly while she was in the warm birthing pool. Ms Westbury asked her to get out of the birthing pool and after she did that, her temperature then dropped immediately.[79] Her increased temperature was therefore attributed to the effect of the warm water.

45. Ms Westbury monitored the foetal heart rate with a Doppler that was part of her equipment. She did not notice any abnormalities.[80]

46. According to Ms Westbury, Baby C's mother had ruptured membranes for 40 hours in total and she was in active labour for 24 hours.[81] She accepted in evidence that there were risk factors present for infection but her evidence was that the research is mixed as to the benefit of providing antibiotics in labour and in her view simply because there

[74] T 69.
[75] T 68 – 69.
[76] T 64.
[77] T 114.
[78] T 113.
[79] T 33, 113.
[80] T 111, 113.
[81] T 114.

were risk factors present did not necessarily indicate that there was likely to be a bad outcome for the baby.[82]

47. Baby C's parents were aware that a long labour increased the chance of infection.[83] They believed that part of the risk of increased infection with a long labour is due to having more vaginal examinations, so that was something they tried to minimise.[84] Baby C's mother had discussed with Ms Westbury the possibility of being given antibiotics in labour as a precaution against infection, but she could not remember the detail of the conversation.[85] However, she did understand that as they had not obtained a script for antibiotics from an obstetrician or doctor, it was not possible for Ms Westbury to administer antibiotics to her during the birth.[86] As noted above, Ms Westbury's evidence was that she would not administer antibiotics in any event, as that was outside the scope of normal midwife practice, and it would require transfer to hospital.[87]

48. The labour continued throughout Thursday and into Friday. Baby C's mother describes feeling supported the whole time, with no loss of autonomy, so although the labour was long and hard, she did not find the experience traumatic.[88] She moved between the shower and the birth pool. Ms Westbury would suggest different positions to help move the labour along but Baby C's mother was able to move freely.[89]

49. At one point in the early hours of Friday morning,[90] Ms Westbury inserted a catheter so that Baby C's mother could urinate, which was restricted due to the position of the baby. She took that opportunity to perform a vaginal examination, as she was aware that Baby C's mother did not want vaginal examinations unless absolutely necessary.[91] Baby C's mother was six or seven centimetres

[82] T 120.
[83] T 48; Exhibit 1, Tab 16 [36].
[84] T 33, 48 - 49.
[85] T 33.
[86] T 34.
[87] T 74.
[88] Exhibit 1, Tab 16 [33].
[89] Exhibit 1, Tab 16 [33], [36].
[90] T 84.
[91] Exhibit 1, Tab 17 [19].

dilated at the time of the vaginal examination, so by that time she was in 'established labour'.[92]

50. Ms Westbury called Ms Clifford at 5.00 am on Friday, 12 February 2010 and asked her to attend.[93] When Ms Clifford arrived they had a brief verbal handover discussion, including a summary of the mother's condition and the length of labour, and Ms Clifford familiarised herself with the notes.[94] Ms Westbury then went to rest.[95] Ms Clifford recalls taking routine observations like blood pressure, temperature, the baby's heart rate and the contractions. Ms Clifford thinks she took the temperature two hourly because that would be standard given the membranes had ruptured.[96] At no stage did Baby C's mother's temperature rise equal to or greater than 38 degrees.[97]

51. Ms Clifford specifically remembers Baby C's mother becoming "a bit cross", as she described it, at the frequency of the foetal heart checks and asked why Ms Clifford needed "to interfere all the time."[98] As a result Ms Clifford asked Baby C's mother each time if she could listen to the baby and sometimes Baby C's mother consented and sometimes she did not.[99]

52. Ms Clifford had been informed by Ms Westbury that Baby C's mother wasn't keen to go to hospital because of her previous hospital birth experience.[100] Ms Clifford recalls having a discussion with Baby C's mother at one stage about possibly transferring, given the long labour, but given that the mother's observations and temperature were fine and Baby C's heart rate was fine, there wasn't really any indication that they had to go to hospital at that time, so it was Baby C's mother's choice.[101]

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[92] T 84.
[93] T 114.
[94] T 82 - 83.
[95] T 115.
[96] T 86.
[97] T 86.
[98] T 83.
[99] T 83.
[100] T 84.
[101] T 85.

53. At some stage, Ms Clifford and Ms Westbury also had a discussion about transferring to hospital.[102] Ms Clifford recalls that it was when Baby C's mother was in "really, really active labour" and Ms Clifford suggested another vaginal examination to see what stage had been reached and Baby C's mother refused the examination. At that time Ms Clifford remembers both she and Ms Westbury were "muttering hospital at that stage" before Baby C's mother came in and said she was not going to hospital.[103]

54. Baby C's mother remembers Ms Westbury asking her if she wanted to go to hospital.[104] She also recalls Ms Clifford being present during such a discussion.[105] Baby C's mother did not want to go to hospital. She was concerned that if she delivered in hospital she might suffer PTSD symptoms.[106] She also said that "the idea at the time of having to try and get into a vehicle and transfer to hospital seemed unthinkable."[107] Baby C's mother was reassured from the monitoring that both she and the baby were well, so she told Ms Westbury she did not want to go to hospital.[108]

55. Although she remembered being asked whether she wanted to go to hospital, Baby C's mother did not remember ever being strongly advised that she needed to go to hospital with any urgency.[109] However, she accepted that even if this had occurred, she would have wanted some evidence that something was actually wrong, indicating an immediate threat to her or her baby, before she would have agreed to be transferred.[110]

56. Similarly, at no stage did Baby C's father recall either midwife telling them that they *needed* to go to hospital, but Baby C's father did concede it was "definitely an option"[111]

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[102] T 114 – 115.
[103] T 85.
[104] Exhibit 1, Tab 16 [37].
[105] T 37.
[106] T 40.
[107] T 31.
[108] T 31; Exhibit 1, Tab 16 [37].
[109] T 37 – 38.
[110] T 39.
[111] Exhibit 1, Tab 17 [18].

and was "a theme throughout the delivery".[112] He recalled "vague discussions around it"[113] from time to time but then something would occur each time to show the labour was progressing.[114]

57. Baby C's father also recalled a specific incident on the Friday afternoon when Ms Westbury and Ms Clifford were talking in the kitchen and some mention was made of hospital. At that time Baby C's mother, who was in full labour, walked through and said "I'm not going to fucking hospital."[115] This seems to be the occasion that Ms Clifford recalls, as mentioned earlier.

58. Ms Westbury gave evidence that given the mother was afebrile (without fever) and in good condition and the baby was in a good position with foetal heart rates within normal range; it was not felt that hospital transfer was required.[116]

59. Ms Clifford gave evidence that she saw their position as being that they had no choice but to stay and support Baby C's mother in the best capacity that they could, and she was reassured that Fremantle Hospital was only two minutes' drive away.[117]

60. So the generally agreed position between the witnesses appears to be that, although hospital transfer was discussed, Baby C's mother did not want to go to hospital and the midwives gave evidence they did not think it was urgently required so they did not urge her to do so. This is despite the fact that rupture of membranes for longer than 18 hours is known to be a risk factor for neonatal GBS sepsis and the KEMH Clinical Guidelines indicate that "**antibiotics should be given**" for women with an unknown current GBS status at the time of labour and the membranes are ruptured for 18 hours or more.[118]

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[112] T 49.
[113] T 49.
[114] T 49 - 50.
[115] T 51, 54.
[116] T 115.
[117] T 85 – 86.
[118] Exhibit 1, Tab 18.

THE BIRTH/DELIVERY

61. Baby C was born at about 7.20 pm[119] in the evening on Friday, 12 February 2010. He was born by vaginal delivery in the kitchen of their home with his father and the two midwives present.

62. Baby C's mother describes the birth itself as a good experience. At that time she understood there were no indications that there was anything wrong with Baby C.[120] However, Ms Westbury and Ms Clifford gave evidence that there was a little or slight meconium staining of the liquor at delivery.[121]

63. Meconium is formed in the bowel of a baby in utero. It is normally retained in the bowels until after birth. The presence of meconium in the liquor shows that the baby had a bowel movement in the womb and the meconium was expelled into the amniotic fluid.[122] This commonly occurs when a baby is stressed during the delivery.[123] Ms Westbury described the colour of the meconium staining as yellow, which she said indicated that it was not fresh,[124] and Ms Clifford described it as very pale.[125] Ms Westbury also asserted that the baby did not aspirate any meconium as he was suctioned.[126] As will be seen below, the post mortem findings contradict Ms Westbury's assumption that Baby C did not aspirate any of the meconium.

64. Baby C's mother was assisted to a couch and Baby C was placed on her chest. Ms Westbury gave him an Apgar rating of 7 (out of 10) at 1 minute, as initially Baby C's tone and colour weren't good, and 9 out of 10 at 5 minutes. These ratings suggest Baby C appeared healthy and well shortly after the delivery. However, Ms Westbury acknowledged that the meconium staining, in the context

[119] Exhibit 2, Tab 5.
[120] Exhibit 1, Tab 16 [37].
[121] T 86, 116.
[122] T 116.
[123] T 97.
[124] T 117.
[125] T 87.
[126] T 117.

of the prolonged rupture of membranes and the unknown GBS status, was an indicator of a risk of infection.[127]

65. Some time elapsed after Baby C's birth during which they relaxed and Baby C's parents enjoyed some time with their new baby.

66. The placenta was delivered about half an hour after Baby C.[128] Ms Westbury, Ms Clifford and Baby C's father all noticed the placenta smelt bad.[129] Ms Westbury and Ms Clifford knew that the smell indicated infection of the placenta, and possibly the mother and baby.[130] They did not, at that time, make arrangements for Baby C and his mother to go to hospital.

67. When Ms Westbury was asked by counsel assisting whether she agreed that, in hindsight, a hospital transfer should have been arranged immediately, she disagreed and stated that observation would be normal practice.[131] Instead, Ms Westbury said she told Baby C's mother she would be watching the baby very closely and he would be transferred to hospital "at the first sign of anything abnormal."[132]

68. Ms Clifford gave similar evidence that it was appropriate in the circumstances to simply observe Baby C and transfer to hospital only if he showed any concerning symptoms.[133] This was despite the fact that she also agreed that the odour from the placenta was a sign of infection.[134]

69. At about 8.30 pm, shortly before Baby C became unwell, Ms Clifford went home.[135] At the time she left the home, Baby C appeared pink, warm and active. He had not fed but she gave evidence that was not unusual. She believed at the time he was a healthy baby.[136]

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[127] T 117.
[128] T 117.
[129] T 52, 86, 117.
[130] T 86, 118.
[131] T 118.
[132] T 118.
[133] T 88.
[134] T 88.
[135] T 88.
[136] T 88.

70. Approximately an hour after Baby C was born, and approximately half an hour after the delivery of the placenta, Ms Westbury noticed a change in Baby C when he became floppy.[137] She immediately said that they needed to go to hospital and suggested they should call an ambulance.

71. Baby C's father told her they would drive to Fremantle Hospital in their vehicle as they lived only 200 metres from the hospital and he believed it would be quicker than waiting for an ambulance.[138] Baby C's father then drove Ms Westbury and Baby C to the hospital, while Ms Westbury provided bag to mask ventilation to Baby C.

72. Ms Westbury did not agree that in failing to arrange an early transfer for Baby C and his mother she had failed to provide the standard of care expected of a reasonable practising registered midwife.[139] Despite the outcome in this case, her evidence was that even with the benefit of hindsight she would not have changed anything she did in this case.[140] She maintained that the risk of GBS infection in a baby is low and babies die in hospital under the same circumstances.[141]

FREMANTLE HOSPITAL

73. Baby C arrived at the Fremantle Hospital Emergency Department at 9.02 pm. On arrival he was exhibiting agonal gasps. He was floppy and pale with a weak pulse of about 50 beats per minute.[142] His heart rate remained consistently below 60 beats per minute and a 'code blue' was issued at 9.05 pm and cardiopulmonary resuscitation was commenced immediately. Adrenaline, Amoxycillin and Gentamicin (both antibiotics) and supportive treatments were administered. A newborn retrieval team from KEMH was also requested to attend.[143]

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[137] T 118.
[138] T 52.
[139] T 118.
[140] T 120.
[141] T 120 - 121.
[142] Exhibit 1, Tab 4, 3.
[143] Exhibit 1, Tab 5.

74. A chest x-ray was performed at 9.56 pm. The results suggested possible pneumonitis and aspiration of the right lung. Advanced life support was continued.[144]

75. Ms Westbury became concerned that Baby C was not going to be able to be resuscitated and so she returned to the house to collect Baby C's mother.

76. By 10.10 pm, there was no pulse and no audible heartbeats. CPR was ceased (a full hour after it had commenced) and sadly, Baby C was pronounced deceased.[145]

77. By the time Baby C's mother reached the hospital, Baby C had already died.[146] Baby C's parents were allowed to spend some time together with Baby C at the hospital.

78. The death was reported to the Office of the State Coroner by medical staff at the hospital pursuant to s 17(3) of the *Coroner's Act*. Coronial police investigators attended the hospital and spoke with medical staff, Ms Westbury and Baby C's parents.[147]

CAUSE AND MANNER OF DEATH

Post Mortem Examination and Investigations

79. As part of the coronial investigation, a direction was made for a post mortem examination to be performed. An external examination was conducted by Dr Karin Margolius on 15 February 2010, which raised some concerns about possible underlying brain damage due to the degree of moulding of Baby C's head. As a result, an internal examination was conducted on 18 February 2010. After these examinations, Dr Margolius could not ascertain a cause of death. This prompted further investigations to be undertaken.[148]

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[144] Exhibit 1, Tab 5.
[145] Exhibit 1, Tabs 2 and 5.
[146] Exhibit 1, Tab 16 [41].
[147] Exhibit 1, Tab 4, 1 -2.
[148] T 96 – 97; Exhibit 1, Tab 6.

80. Neuropathology examination of the brain showed some swelling of a non-specific nature but no significant abnormalities, although this finding does not entirely exclude the possibility of a hypoxic episode due to the short time between the delivery and the death of Baby C.[149]

81. Virology testing did not identify a specific viral infection.

82. Microscopic examination showed widespread aspiration of meconium in the lungs. This is commonly seen in babies who are stressed during the delivery, when the amniotic fluid becomes contaminated by meconium and is breathed in by the baby. The meconium can be toxic to babies' lungs.[150] In the case of Baby C, the aspiration of meconium had led to inflammation in his lungs with signs of early bronchopneumonia.[151]

83. There was also established inflammation in the placenta and umbilical cord and the placenta was also noted in the external examination to be foul smelling. This smell had been noticed by Ms Westbury and Baby C's father at the time of delivery,[152] which would point to the placenta having been badly infected at that time, and it was already starting to deteriorate from the infection.[153]

84. Microbiology testing of the placenta and umbilical cord, as well as samples from the deceased, identified Group B Streptococci.[154] The Chief Forensic Pathologist, Dr Cooke, who gave evidence at the inquest, advised that this bacterium is present in about a quarter of women. If it is actively present during labour, the baby can pick up the infection as it travels through the birth canal and vagina. Where there is prolonged rupture of the protective membranes around the baby (ie. when a long period has elapsed from after the waters have broken until delivery) then the bacteria can ascend from the vaginal birth canal

[149] T 95 – 96; Exhibit 1, Tab 6.
[150] T 97.
[151] Exhibit 1, Tab 6.
[152] Exhibit 1, Tab 6.
[153] T 99.
[154] T 96; Exhibit 1, Tab 6.

and the placenta and the baby can become infected. Streptococcal infection results in very rapid deterioration in a baby's health, within an hour or two after delivery and is the classic cause of neonatal sepsis.[155] That is what occurred in the case of Baby C.[156]

85. Dr Cooke also noted that bronchopneumonia can be linked to Group B Streptococci infection, and that infection could also cause the baby stress, leading to it gasping on meconium-stained amniotic fluid. Therefore, there is a likely connection between the bronchopneumonia and the infection, in two ways.[157]

Conclusion as to Cause of Death

86. Following receipt of the results of all the investigations, Dr Margolius formed the opinion that the cause of death of Baby C was Group B Streptococcal infection and meconium aspiration with early bronchopneumonia. Dr Cooke, during his evidence, agreed with this opinion.[158]

87. I accept and adopt the opinions of Dr Margolius and Dr Cooke.

Conclusion as to Manner of Death

88. Given the cause of death was a bacterial infection, in conjunction with early bronchopneumonia due to meconium aspiration during delivery. I find that the death occurred by way of natural causes.

ADEQUACY OF INFORMATION AND CARE

89. I acknowledge that it is ultimately the woman's decision as to how and where she gives birth. However, questions arose in this case as to whether the information/advice given to Baby C's mother about the safety of attempting a home birth in her circumstances, both prior to labour and

[155] T 97.
[156] T 96.
[157] T 98.
[158] T 96, 100.

later as the labour progressed, was appropriate. Those questions particularly related to the decision to attempt a VBAC (also sometimes referred to as 'trial of scar') at home, the decision not to participate in routine GBS screening and the consequences of that decision, and whether there was a need to transfer to hospital during the labour due to the prolonged rupture of the membranes and the prolonged labour itself. Ms Westbury was involved in all of these matters, whereas Ms Clifford only had input in relation to the question of transfer to hospital during labour.

90. In order to assist me in considering the adequacy of the services provided by the midwives, expert opinions were sought from an appropriately qualified consultant obstetrician and two midwives who work as academics in the field.

91. Dr Christopher Griffin provided expert evidence in relation to the pregnancy and delivery of Baby C. Dr Griffin is a very experienced obstetrician and gynaecologist. He has been practising medicine since 1985 and as a specialist for approximately 15 years in the United Kingdom and across Australia. His current role is as a Consultant Obstetrician, and in particular a Maternal Foetal Medicine Specialist (dealing with complicated pregnancies), at KEMH.

92. Dr Christine Catling is a registered midwife who completed a doctorate on the influences of women who choose publicly funded home birth and currently lectures in midwifery at the University of Technology Sydney.[159] Dr Catling and her academic colleague, Dr Caroline Homer, provided an expert report in relation to the midwifery care given to Baby C's mother during the pregnancy and birth of Baby C, as well as postnatally.[160] Dr Catling also gave oral evidence at the inquest.

93. It is important to note that the experts did not approach their view of this case from a starting position that home

[159] T 606 – 607; Exhibit 1, Tab 11.
[160] Exhibit 1, Tab 11.

births, *per se*, are inappropriate and dangerous. Dr Griffin was supportive of home births in appropriate cases and expressed his view that "birth in the community should be given as much importance in people's minds as birth within a hospital."[161] He referred the court to a recent paper reporting the results of a cohort study of low risk planned home and hospital births in the Netherlands.[162] That study found no significant differences in the rates of intrapartum and neonatal death up to 28 days after birth between planned home births and planned hospital births among **low-risk women** (emphasis added).[163]

94. Dr Catling expressed her view that home birthing can be "wonderful" and "should be more mainstream than it is."[164] She also referred to research that showed for low risk pregnancies there are no greater adverse results from planned home births than hospital births. However, Dr Catling acknowledged the same cannot be said for high risk pregnancies.[165]

95. In this case, given Baby C's mother's obstetric history, it was generally accepted by the experts that, according to established obstetric categorisation of pregnancy, she did not fall within the 'low risk' category. In addition, the early rupture of the membranes and protracted labour also increased the risk statuses for the baby and mother.

96. With that in mind, it was important to know how these risks were discussed with Baby C's parents and what information and advice was given to them by the midwives.

97. The experts were hampered in evaluating the level of information and decision-making in this case by the lack of documentation available for them to review. As noted above, no statements were provided by Ms Westbury, Ms Clifford nor Baby C's parents during the initial coronial investigation and the birth record apparently existed but

[161] T 681.
[162] Exhibit 1, Tab 12, *Perinatal mortality and morbidity up to 28 days after birth among 743,070 low-risk planned home and hospital births: a cohort study based on three merged national perinatal databases*, published online 10.9.2014 in the International Journal of Obstetrics and Gynaecology – www.bjog.org.
[163] Ibid, 5.
[164] T 610.
[165] T 647, 654.

was missing (according to the evidence of Ms Westbury and Ms Clifford). Dr Griffin categorised the case as "almost the same as free birthing"[166] (the intentional delivery of a child without the assistance of a medical or professional birth attendant), given the lack of information available for scrutiny.

98. The situation certainly improved during the inquest after Baby C's parents provided statements and gave evidence and Ms Westbury and Ms Clifford gave evidence. Still, the lack of detailed documentation in the pregnancy health record that was available, as well as the fact of the missing birth record, remained concerning and reflected poorly upon Ms Westbury, who was the primary midwife and was therefore responsible for the bulk of note-taking and would have been expected to have knowledge as to the whereabouts of the notes of the delivery afterwards.

VBAC

99. As mentioned previously, despite her hopes for a low intervention vaginal birth for her first child, Baby C's mother delivered her first child by caesarean section after a failed induction. The sad fact is that not only did this mean that her first child was not born in the manner she hoped, but it also limited her options for the birth of any other children in terms of non-hospital settings, as explained below.

100. Baby C's mother's history of a caesarean section for her first birth was a contraindication for a home birth due to the risk of rupture of the uterine scar. Dr Griffin gave evidence that the risk of severe perinatal trauma or death of the baby due to uterine rupture in a VBAC is between 0.5 to 1 percent. He indicated that that risk is about 10 to 20 times lower when the birth takes place in a hospital setting, because of the promptness of the immediate emergency care available.[167] There is also an increased

[166] T 680.
[167] T 671 - 672; Exhibit 1, Tab 12 [4].

risk that the mother will require a hysterectomy if prompt emergency care is not available.[168]

101. Therefore, although the absolute risks of uterine rupture are small, the consequences of the rupture for the mother and baby are so devastating that home birth is contraindicated.[169] Hence, why CMP and KEMH Birth Centre do not permit mothers attempting a VBAC to engage their services. It is also for this reason that Dr Griffin, Dr Catling and Dr Homer all agreed that from the outset it was apparent that the home environment was not the safer option, at least in the short term, for the birth of Baby C.[170]

102. As it came to pass, the risk of uterine rupture in fact increased during Baby C's mother's labour due to the prolonged labour. According to Dr Catling and Dr Homer, prolonged labour (labour dystocia) is a risk factor for uterine rupture, warranting hospital transfer. Fortunately uterine rupture did not, in the end, occur.[171]

103. The Australian College of Midwives' (ACM's) National Midwifery Guidelines for Consultation and Referral[172] (which are intended to assist midwives in their clinical decision-making and help them to decide when to consult with other medical practitioners)[173] categorise an obstetric history of previous caesarean section operation as a category B situation, recommending that the midwife consult with a medical practitioner or other health care provider.[174] Dr Catling gave evidence that it would be unusual for a midwife not to follow the guidelines and "probably unwise in a lot of cases."[175]

104. Ms Westbury's note in the pregnancy health record of the initial meeting, which is consistent with her evidence and Baby C's mother's evidence, is that Baby C's mother

[168] T 672.
[169] Exhibit 1, Tab 11, 4.
[170] Exhibit 1, Tab 11, 4 and Tab 12 [1].
[171] Exhibit 1, Tab 11, 4.
[172] Exhibit 8, Tab 10.
[173] Exhibit 8, Tab 10, 2 – 3.
[174] Exhibit 7, Tab 7, 22 (as at September 2008) Exhibit 8, Tab 10, 22, 39 (as at May 2013).
[175] T 609 – 610.

understood the associated risks[176] and made an informed decision to attempt a VBAC at home, nonetheless. Ms Westbury did not suggest at that time that Baby C's mother should consult with a medical practitioner, nor did Ms Westbury initiate such a consultation herself. The evidence was that facilitating VBACs at home formed a significant part of Ms Westbury's practice at that time[177] and it was understood by Baby C's parents that this was contrary to what most obstetricians would recommend but they made that choice consciously.[178] It was also clear that Baby C's parents were unwilling to engage with KEMH medical staff unless and until it became unavoidable.[179]

105. While from a medical point of view home birth was "not the safest option"[180] in this case in terms of the immediate outcomes for the mother and baby, Dr Catling and Dr Homer recognised that "previous traumatic births and a lack of continuity of care giver in many hospital settings meant that women often choose homebirth as they see this [as] the safest option",[181] from their point of view.

106. Dr Griffin noted that in some cases those women may be correct in forming that view, in terms of the long term well-being of the baby. That is because if a mother such as Baby C's mother, who has already experienced PTSD from her first hospital birth, is forced or coerced into a hospital confinement again, she may suffer immeasurable mental distress resulting in post puerperal psychosis. This can put both the mother's and baby's lives at risk.[182]

107. It was for this reason that Dr Griffin, Dr Catling and Dr Homer all recommended that Baby C's mother be referred to counselling early in the pregnancy, with the aim of addressing Baby C's mother's fear of hospital.[183] Dr Griffin's view was that engagement with KEMH specialised psychological medicine unit might hopefully

[176] Exhibit 1, Tab 15B.
[177] Exhibit 1, Tab 16 [23].
[178] Exhibit 1, Tab 16 [27] and Tab 17 [10] – [12].
[179] Exhibit 1, Tab 16 [27] and Tab 17 [10] – [12].
[180] Exhibit 1, Tab 11, 5.
[181] Exhibit 1, Tab 11, 5.
[182] T 671; Exhibit 1, Tab 12 [1].
[183] Exhibit 1, Tab 11 [7] and Tab 12 [4].

have enabled an agreement to be reached between the hospital and Baby C's mother to assist her to be comfortable with making a choice to give birth in hospital. Dr Catling and Dr Homer, on the other hand, emphasised the importance of counselling to enable Baby C's mother to develop some trust in the hospital so that she would accept hospital care if needed.[184]

108. In fact, we now know that Ms Westbury did refer Baby C's mother to a psychologist early in the pregnancy[185] and Baby C's mother did engage with the psychologist during the pregnancy.[186] However, despite receiving counselling, Baby C's mother continued to be terrified of hospitals and medical interventions.[187]

109. The end result was that Baby C's mother was likely to be very resistant to transferring to hospital during labour unless she could be shown that there was an immediate threat to her life or her baby's life, as proved to be the case.[188] This did leave Ms Westbury in a difficult position.

110. In Dr Catling's opinion, the circumstances required a lot of communication between the mother and midwife in the antenatal period as once she was in labour, a clear discussion would be difficult.[189] Ms Westbury's evidence was that she would not have agreed to an arrangement where hospital transfer was not an option in the event of an emergency.[190] Other than that, there does not appear to have been a detailed discussion and plan about when, and in what circumstances, hospital transfer would be initiated. This suggests a failure on Ms Westbury's part to properly communicate with Baby C's mother about what plans for hospital transfer should be put in place.

111. However, Dr Catling and Dr Homer acknowledged that the trust Baby C's mother placed in Ms Westbury may have been fractured if she had pressed the need for hospital

[184] Exhibit 1, Tab 11, 8 - 9.
[185] T 72.
[186] Letter from Ms Temple dated 16.9.2014, referred to at T 3.
[187] Letter from Ms Temple dated 16.9.2014, referred to at T 3.
[188] T 39.
[189] T 630 – 631.
[190] T 119.

involvement in anything other than an emergency situation. Baby C's mother may then have opted for a 'freebirth' if she did not feel Ms Westbury supported her wish for no hospital involvement unless absolutely necessary.[191]

112. Giving his personal opinion, separate to any position held by KEMH or the RANZCOG, Dr Griffin felt "there should be a plan in place to support women who choose freebirth circumstances away from traditional care in the hospital environment."[192] Dr Griffin emphasised that the support for this must come from the community, so that all women, irrespective of their birthing mode choice, are supported and given access to the same level of service.[193] In Dr Griffin's view, the crux of the resolution is communication. If birth in the community is given the same importance as birth in hospital, those involved in home births will feel encouraged calling consultant obstetricians, maternal foetal medicine specialists or any medical practitioner and discussing the matters to ensure the wellbeing of the patient.[194]

113. Ultimately, I find that the weight of the evidence supports the view that Baby C's mother made an informed decision to pursue a VBAC at home, with the support of her husband. She understood that this decision would be against general obstetric advice in Western Australia, but she made the choice nonetheless. My criticism of Ms Westbury is not that she should have better informed Baby C's parents of the risks involved in attempting a VBAC at home, but rather that her documentation of her discussions with Baby C's parents about those risks, and the factors that might arise during labour that would increase those risks, was inadequate.

GBS Screening

114. Dr Catling and Dr Homer noted in their report that although the rate of neonatal GBS infection is small, it is

[191] Exhibit 1, Tab 11, 9.
[192] Exhibit 1, Tab 12 [8].
[193] T 681; Exhibit 1, Tab 12 [8].
[194] T 681.

characterised by sudden and severe morbidity and mortality and is the most common cause of death in the neonatal period.[195]

115. Routine GBS screening of pregnant women is recommended in Australia. The test is painless and the necessary vaginal and rectal swabs can be done by the woman herself, if she prefers.[196] The aim of the test, performed between 35 and 37 weeks' gestation, is to identify those women who are GBS positive shortly prior to delivery.

116. If the result is positive, it is recommended in Australia that the woman be given precautionary antibiotics in labour, which, according to the WA Department of Health information sheet, is estimated to reduce the rate of GBS infection in newborn babies by approximately 85 percent.[197] The antibiotics are given intravenously, through a cannula in the arm or hand, which will remain in place throughout labour.[198] This obviously limits the ability of the woman to move freely during labour.

117. If a woman has chosen not to have routine screening, so her GBS status at that time is unknown, the Department of Health information sheet suggests that the midwife or doctor will also recommend treatment with antibiotics in labour.[199]

118. Dr Griffin acknowledged during his evidence that there are positive and negative aspects of having a preventative screening test, which he would routinely discuss with a patient.[200]

119. In the past, there were difficulties with the accuracy of GBS testing. However, Dr Griffin advised that microbiological identification has been revolutionised in

[195] Exhibit 1, Tab 11, 5.
[196] Exhibit 1, Tab 19.
[197] Exhibit 1, Tab 19.
[198] Exhibit 1, Tab 19.
[199] Exhibit 1, Tab 19.
[200] T 674 – 675.

the last few years due to RNA sequencing and DNA profiling.[201]

120. More significant, in terms of weighing up the benefits and disbenefits of routine screening and prophylactic use of antibiotics on that basis (without consideration of risk factors), are the known risks of administration of antibiotics, as set out in Department of Health's information sheet.[202] Dr Griffin emphasised that the most concerning of those are the chance of anaphylaxis in the mother at the time the antibiotics are administered, as well as the more long-term effects on the baby's immune development and the increased likelihood of strains of bacteria developing resistance to antibiotics.[203] It is for reasons such as these that screening and administration of antibiotics is done on risk factors in the United Kingdom, rather than the generalised screening approach adopted in Australia.[204]

121. Dr Catling also noted that many mothers may decline screening as GBS is transient, so it may be present when a woman is tested but may not be present when a woman goes into labour. However, if a woman tests GBS positive at the earlier stage, she will usually be given prophylactic antibiotics as a precautionary measure.[205] This can limit the mother's ability to move freely during labour.

122. Dr Griffin was critical of Ms Westbury's lack of detailed notation about her discussions with Baby C's mother about GBS screening and Dr Catling also emphasised that documentation is very important when a mother does not follow advice.[206] I agree that more fulsome notes should have been made, setting out the nature of the discussions and Baby C's mother's reason for declining.[207] However, on the basis of the evidence of Ms Westbury and Baby C's mother, I accept that Baby C's mother was well-informed about the risks and benefits of the screening and made an informed decision not to participate.

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[201] T 673 – 674.
[202] Exhibit 1, Tab 19.
[203] T 675.
[204] T 674.
[205] T 627.
[206] T 610 – 611.
[207] Exhibit 1, Tab 12 [3] – [4].

123. However, what that decision led to was a situation where Baby C's mother went into labour with an unknown GBS culture result. This meant that if certain circumstances arose during her labour, risk factors could arise for neonatal GBS sepsis, which would prompt the need for intravenous antibiotics to be given.[208] As noted above, there were no arrangements made for these to be delivered at home in the event they were required, so it would necessitate a hospital transfer.

124. Although there was evidence from Ms Westbury and Baby C's mother that there was a general understanding that this was the case, there was no evidence given of a detailed plan as to when, and in what circumstances, hospital transfer would be required, and no such plan was documented in the pregnancy health record.[209] There simply appears to have been an understanding amongst the midwives and Baby C's parents during the labour that Baby C's mother was resistant to transferring to hospital unless there was an obvious emergency situation, but would consent if there was a clear indication something was wrong with her and/or the baby. In Dr Catling's opinion, it would generally be expected that a much greater level of discussion about the possible factors that might necessitate a transfer would take place.[210]

Transfer to hospital during labour

Prolonged Rupture of Membranes

125. A known risk factor for GBS infection is what is referred to as Prolonged Rupture of Membranes (PROM). Dr Griffin explained that the majority of women go into labour before their membranes or waters break. However, in 10 percent of women their membranes rupture before the onset of contractions. It is thought that this is caused by an inflammatory reaction secondary to infection occurring. In most cases, the woman's body can still fight the infection

[208] Exhibit 1, Tab 18.
[209] Exhibit 1, Tab 15A – C.
[210] T 626.

and she will deliver within the next 24 hours, so the risk of infection remains low.

126. However, the longer that the membranes have been ruptured, the greater the risk for infection to both the mother and the baby. Dr Griffin advised that the risk reaches a significant risk at about 24 hours and the risk increases "almost exponentially on logarithmic scale" after that time.[211] By the time the membranes have been ruptured for more than 24 hours, the risk the baby has a severe infection likely to cause severe morbidity or death has increased tenfold.[212] It is for this reason that at KEMH the doctors start the institution of antibiotics 24 hours after the membranes have ruptured.[213]

127. Knowing that antibiotics in such circumstances were recommended,[214] Ms Westbury asserted that the research and evidence available as to the benefits of antibiotics in labour in decreasing neonatal mortality and morbidity is very mixed and ambivalent.[215] Therefore, her evidence was that given during Baby C's delivery his mother remained afebrile and the baby's heart rate was within normal limits "there was no indication" that antibiotics should be given.[216]

128. Ms Clifford also expressed the view that they were entitled to be reassured by the lack of any increased temperature in the mother and the absence of concerning sign in the baby's heart rate,[217] but she seemed to be expressing that opinion more in the context that it did not present as an emergency situation, so it remained the mother's choice.[218]

129. Contrary to Ms Westbury's evidence, Dr Catling advised that evidence has demonstrated that the practice of giving prophylactic antibiotics when the woman is GBS positive or has prolonged rupture of membranes has been quite

[211] T 672.
[212] T 673.
[213] T 673.
[214] T 79.
[215] T 73, 120.
[216] T 73.
[217] T 85.
[218] T 85.

influential in reducing the level of neonatal sepsis and maternal sepsis.[219]

130. Dr Griffin also gave evidence that it is extremely rare (less than 1 in 5000 births) for a normal baby born at term to die when the mother is known to be a carrier of GBS and appropriate precautionary measures such as intravenous penicillin administered during labour and careful immediate postnatal care of the baby are provided.[220] On that basis, in Dr Griffin's expert opinion Baby C's death would "almost certainly" have been prevented if he had been born at KEMH or another WA hospital. He acknowledged that nothing is foolproof but expressed a "large degree of confidence" that appropriate intrapartum use of antibiotics and care provided by more experienced and technically adept staff in a hospital would have prevented the outcome that occurred in this case, particularly given Baby C's Apgar was 7 at 1 minute after birth.[221]

131. Dr Griffin maintained the same opinion if Baby C's mother had been transferred to hospital at an appropriate time before the delivery, around the 18 – 24 hour mark.[222]

132. Dr Catling and Dr Homer indicated in their report that "the lack of appropriate care – not transferring to hospital during labour for appropriate intervention – may have been responsible for the death" of Baby C.[223] In evidence, Dr Catling was more reticent to proffer the opinion that Baby C could have been saved if intravenous antibiotics had been given, although she indicated that statistically it is more likely that he could have been saved in those circumstances.[224]

133. In contrast, Ms Westbury maintained at the inquest that babies die in hospital under exactly the same

[219] T 626.
[220] Exhibit 1, Tab 12 [7].
[221] T 676; Exhibit 1, Tab 12 [7].
[222] T 676 – 677, 681.
[223] Exhibit 1, Tab 11, 8.
[224] T 632 – 633.

circumstances and she would not change what she did if a similar situation presented itself.[225]

134. I accept the expert opinion of Dr Griffin, which was largely supported by the report of Dr Catling and Dr Homer, that the most appropriate course in this case would have been for Baby C's mother to have been administered intrapartum antibiotics once it became apparent that she presented with the risk factor of PROM of more than 24 hours. If this course of conduct had been adopted, it would most likely have saved Baby C's life.

135. I accept that a major obstacle to this course being undertaken was the resistance of Baby C's mother to transferring to hospital, which was a position she maintained throughout the pregnancy and the labour. However, as I indicated to counsel at the conclusion of the inquest hearing, my concern in this case is that it should nonetheless still have been directly put to Baby C's parents that that was the recommended approach in Western Australia, and in those circumstances they should strongly consider transferring to hospital due to the risk of infection of the baby, and the dire consequences that could flow in those circumstances.[226]

136. Given Ms Westbury's expressed view about the ambivalence of evidentiary support for the benefits of preventative antibiotics, it is not surprising that she never recommended to Baby C's parents that they should proceed with hospital transfer when it was apparent that the timeframe for the risk factor of PROM had been reached. In my view, as an experienced registered midwife at that time, Ms Westbury should have followed the ACM midwifery guidelines relating to when more than 18 hours had passed from the rupture of membranes, and at least recommended to Baby C's parents that a medical practitioner at KEMH be contacted for advice (who would no doubt have recommended that they should bring Baby C's mother to hospital for the administration of antibiotics) or alternatively strongly suggested hospital

[225] T 120.
[226] T 815, 848 - 850.

transfer herself. Her failure to do so was poor midwifery practice, below the standard one would expect of a registered midwife in Western Australia.

137. Ms Clifford, coming in at a very late stage, as the back-up midwife, recalled reading in the notes that Baby C's mother had been offered antibiotics and declined them unless she had a temperature.[227] She nevertheless did attempt to raise the possibility of hospital transfer with Baby C's mother and with Ms Westbury at various times, but became aware that it was not likely to be agreed to by Baby C's mother. In my view there is little that Ms Clifford could have done in those circumstances, given the difficulty of the situation with which she was suddenly faced. She felt constrained to remain and try to assist as best she could,[228] and that position is supported by Dr Catling and Dr Homer to a certain extent.[229]

Malodorous Placenta

138. There is also the issue of the presentation of the placenta. Ms Westbury and Ms Clifford both gave evidence that when the placenta was delivered, it had an odour that indicated the possibility of infection, which might also mean Baby C and/or Baby C's mother was infected.[230]

139. Ms Westbury said that she told Baby C's mother she would be "watching the baby very closely and it would be transferred at the first sign of anything abnormal."[231] She did not mention any risk to Baby C's mother's health.[232] Ms Westbury disagreed with counsel assisting's suggestion that the appropriate course should have been to suggest an immediate hospital transfer at that time, and maintained it was a "percentage risk" and "[o]bservation would be normal practice."[233] Ms Clifford also maintained that doing observations of the baby was appropriate and

[227] T 90.
[228] T 85.
[229] Exhibit 1, Tab 11, 9.
[230] T 86, 118.
[231] T 118.
[232] T 87.
[233] T 118.

that best practice did not mandate immediate hospital transfer upon delivery of the odorous placenta.[234]

140. Dr Catling and Dr Homer observed that the unpleasant odour when the placenta was delivered should have been taken as another sign of infection, in the context of the mother's unknown GBS status and the length of the rupture of the membranes.[235] The ACM midwifery guidelines require consultation with a medical officer in those circumstances.[236] Dr Catling considered it unlikely that hospital transfer at this stage would have saved Baby C, given the rapidity of his illness, but it would have been best practice.[237]

141. Dr Griffin's evidence was that "one would expect immediate action upon the malodorous placenta" being delivered.[238] In a hospital, he would expect a neonatologist to become involved to assess the baby and consider if antibiotics were necessary. As an obstetrician, he would be concerned about the risk for the mother becoming septic postpartum.[239] If he received notification from a midwife that a baby had been delivered at home in those circumstances, he would ask for the mother and baby to come into hospital for observation.[240]

142. Dr Cooke also agreed that there were signs of infection in the placenta, which would raise concerns about significant neonatal sepsis as well as the possibility that the mother could get puerperal sepsis infection.[241]

143. Given the circumstances of the labour, which presented GBS risk factors, the presentation of an odorous placenta after Baby C's birth should have given the midwives some considerable cause for alarm. I accept the evidence of Dr Griffin, Dr Catling and Dr Homer that best practice in those circumstances would have been to transfer the

[234] T 88.
[235] Exhibit 1, Tab 11, 5.
[236] Exhibit 1, Tab 11, 5; Exhibit 7, Tab 7, 27.
[237] T 633; Exhibit 1, Tab 11, 9.
[238] T 679.
[239] T 679.
[240] T 680.
[241] T 99.

mother and baby to hospital so consideration could have been done by doctors in an environment where immediate action could be taken, if required. Remaining in the home meant there would be an inevitable delay in receiving emergency care if problems arose, and so it came to pass. Despite this, neither midwife recommended to Baby C's mother or father that the mother and baby should transfer to hospital at that time. I accept, again, that Baby C's mother may well have been resistant to adopting that course without proof that an emergency situation had arisen, but I would have expected a reasonable registered midwife in Western Australia to have at least made that recommendation.

144. Ms Westbury, as the primary midwife, took the lead in the discussion, so I accept that the primary responsibility for giving that advice rested with her. I find that she failed to provide information and care to an appropriate standard of a registered midwife in Western Australia in that regard.

145. Ms Clifford's role in relation to the concerns arising from the placenta was less clear, but I note that her evidence was that she was present for Ms Westbury's discussion with Baby C's mother about the odorous placenta and she did not disagree with the information and plan discussed.[242] Given the evidence of the medical experts as to best practice indicating a recommendation for immediate hospital transfer was warranted, I would have expected a reasonable registered midwife in Ms Clifford's position to have at least had a discussion with Ms Westbury, separate to Baby C's parents, to discuss the possibility of hospital transfer. However, it seems that Ms Clifford took the same view as Ms Westbury that an, in effect, 'watch and wait' position was acceptable. In my view, that position was less than one would expect from a registered midwife in Western Australia at that time.

[242] T 86 – 88.

REFERENCE - SECTION 50 *CORONER'S ACT*

146. The evidence before me disclosed that the information and advice given to Baby C's mother was below the standard reasonably expected of a registered midwife in Australia.

147. Section 50 of the *Coroner's Act* permits me to refer a matter to a disciplinary body in certain circumstances. In my view, the circumstances of the birth warrant consideration by the Australian Health Practitioner Regulation Agency (AHPRA) in association with the Nursing and Midwifery Board of Australia (NMBA). However, there was evidence before me (provided by AHPRA under compulsion) that both Ms Westbury and Ms Clifford had been the subject of investigation already and both had ceased to be registered.

Ms Westbury

148. Ms Westbury was first registered as a midwife and nurse in Western Australia on 16 January 2002.[243] While she had been attached to the CMP at one stage, she worked as an independent midwife from around 1994 until 2010.

149. Ms Westbury confirmed that she ceased to be registered in Australia in December 2010. When asked why, she said it was due to personal reasons and because she no longer lives in Australia.[244]

150. The information provided by AHPRA was that Ms Westbury was under investigation in relation to a number of matters, including this one, by the NMBA at the time she failed to renew her registration on 31 December 2010.[245] The investigation was closed in 2011, as Ms Westbury was no longer registered and could not be located.[246]

[243] T 69; Exhibit 8, Tab 1A.
[244] T 69.
[245] Exhibit 8, Tab 1A.
[246] Exhibit 8, Tab 1A.

Ms Clifford

151. Ms Clifford trained as a nurse and midwife in the United Kingdom. She immigrated to Australia in 1971[247] and was registered as a nurse and midwife in Western Australia on 1 October 1975.[248] Ms Clifford initially worked as an independent midwife then helped to set up the pilot study for the CMP in Perth and was one of its founding midwives. She was also a founding member of the ACM. Ms Clifford worked for the CMP for around a decade before returning to work as an independent midwife in about 2006.[249]

152. Ms Clifford ceased to be registered as a midwife on 30 July 2011 when she surrendered her registration after the WA Board of the Nursing and Midwifery Board of Australia imposed conditions on her registration, which effectively prohibited her from practising as a home birth midwife and limited her practice to a tertiary hospital under supervision.[250] As she did not wish to work in a tertiary hospital and was winding down her practice anyway, she wrote to the Board and indicated that she no longer wished to be registered.[251] She continued to be registered as a nurse for some further period until she allowed that registration to lapse in late 2012.[252]

153. Ms Clifford gave evidence that since that time, she has attended the births of a couple of friends in the role of supporter only, with a registered midwife present and in charge of the delivery.[253]

Referral

154. In the circumstances, in my view it is appropriate that a copy of this inquest finding is provided to AHPRA and the NMBA for consideration in the event that Ms Westbury

[247] Exhibit 5, Tab 9 [3] – [4].
[248] T 56; Exhibit 8, Tab 1A.
[249] T 57, 61.
[250] T 56; Exhibit 8, Tab 1A – note the conditions imposed by the Board followed receipt of a notification in relation to another matter.
[251] T 56.
[252] T 56; Exhibit 8, Tab 1A.
[253] T 56 – 57, 89.

returns to the jurisdiction and the investigation is recommenced.

COMMENTS IN RELATION TO PUBLIC HEALTH

155. The evidence heard in this inquest, and the other two inquests heard at the same time, highlighted the complex issues surrounding planned home births in Australia.

156. In some countries, planned home births are a mainstream choice. In the Netherlands, for example, planned home births have historically accounted for approximately 30% of all births. They also account for approximately 3% of all births in the United Kingdom. In other countries, such as Canada and the USA, the incidence of home births, whilst low, continues to rise.[254]

157. In 2011, an evidence-based review conducted by researchers at the Woman and Infants Research Foundation at KEMH (Models of Maternity Care review) found that less than 1% of women in Australia elect to have home births.[255] Although the numbers involved may be small, the women who do elect to have a home birth are usually passionate and well-educated about their choice and want to be able to do so safely and with the support of the wider Australian community.

158. The home birth debate is a fervent one, with strong views held by interested parties both for and against the practice of birthing at home. The two underlying philosophies are on the one hand, the purpose of the exercise is to have a baby and it does not really matter how it is born as long as it is safe, versus the philosophy that childbirth is more than just the physical experience and the process is as important as the outcome.[256]

159. The Royal Australian and New Zealand College of Obstetricians and Gynaecologists' (RANZCOG's) statement

[254] Exhibit 8, Tab 24, 8.
[255] Exhibit 8, Tab 24, *Models of Maternity Care: Updated Evidence on Outcomes and Safety of Planned Home Birth, Western Australia* 2011, 8.
[256] Exhibit 7, Tab 6, 24.

on Home Births, most recently reviewed in July 2014, states that the College does not endorse planned homebirth being offered as a model of care. RANZCOG supports collaborative care between midwives and obstetricians in a hospital setting as the best model of maternity care.[257] The focus of RANZCOG in adopting that position is, understandably, the safety of the woman and baby and the desire to limit adverse outcomes. It is fair to say that the emphasis is upon the best physical outcome, rather than any emotional or psychological impact of the birth process.

160. On the other hand, there are women who place significant emphasis on the birth experience and have a strong desire to avoid institutional intervention in their birth. They feel that birth is a normal, family-oriented event, not a medical event. They want an intimate, personal experience at home amongst people they know, rather than strangers.[258] As Dr Catling explained, for these women "their perception of risk is very low" as they have great faith in their bodies to give birth without medical intervention.[259] When their expectations are not met, and they do require medical intervention, the emotional and psychological impact on these women can be significant.[260] For many of these women, they can lose what little trust they had in hospitals in the first place.[261]

161. There is another category of women described by Dr Catling whose choice to birth at home is less to do with a preference for birthing in a home environment and more to do with things they want during their labour, such as birthing in water, which can't always be accommodated in hospital, depending upon what facilities they have available and their protocols. This can push those women into choosing to birth at home.[262]

[257] https://www.ranzcog.edu.au – College Statement on Home Births, first endorsed March 1987 and current July 2014.
[258] T 646 – 647.
[259] T 647.
[260] T 647 – 648.
[261] T 647 – 648.
[262] T 647.

162. Taking a position somewhere in between the two extremes of opinion, the Department of Health WA has taken significant steps towards accommodating the needs of women who want to homebirth where the pregnancy is deemed to be 'low risk', with programs such as the CMP and other group practices.[263] However, for women who are not 'low risk', their options for care in the public health system remains limited to hospital. The need to prioritise the safety of the woman and baby or babies creates this limitation.

163. Having said that, it is important that pregnant women understand that the hospital staff are open to discussing their fears and hopes for their delivery, with the expectation that they will be treated with consideration and their choices respected.

164. Dr Griffin described the present matter as a "phenomenally complex case."[264] It demonstrates the complexity of the issues that can arise in some obstetric cases, with not only physical, but also significant psychological and emotional issues, to be addressed. This was an example of a matter where communication between medical and midwifery staff was important, but was not attempted by the midwives involved.[265] Dr Catling also emphasised that this was the sort of case that indicated a discussion with a senior clinician,[266] as well as clear communication between the midwives and the patient.[267]

165. This is consistent with the suggested pathway in the current Australian College of Midwives' National Midwifery Guidelines for Consultation and Referral[268] in circumstances when a woman chooses care outside the guidelines.[269] In those circumstances, the ACM guidelines encourage discussion with the woman and consultation with other midwives and/or medical practitioners, and

[263] T 765.
[264] T 680.
[265] Exhibit 1, Tab 12 [4], [8].
[266] T 626.
[267] T 630 – 631.
[268] Exhibit 8, Tab 10 - Australian College of Midwives, *National Midwifery Guidelines for Consultation and Referral*, 3rd Edition, May 2013.
[269] Exhibit 8, Tab 10, Appendix A.

documentation of the same. What then follows is a decision by the midwife as to whether to continue or discontinue care, informed by her ethical judgment, scope of practice, ability to justify her decision-making to a reasonable body of her peers and her support networks, as well as the personal impact on both the midwife and the woman.

166. Consistently with Dr Griffin's and Dr Catling's evidence, what the ACM guidelines appear to contemplate is that, from time to time, complex cases will present themselves where a woman falls outside traditional care. The important thing in those circumstances is for full and frank discussions to be held and documented, so that those involved are accountable later for their decision-making. It is not to label the women involved as 'difficult', but to recognise a difficult situation that does not sit well within mainstream care, and to assist in finding the safest solution in order to achieve the best outcome, in those circumstances.

167. Dr Griffin emphasised that the path forward, to avoid outcomes such as what occurred in the case of Baby C, is better communication between health professionals and the patient, with the wellbeing of the patient the primary focus.[270] I respectfully agree.

CONCLUSION

168. Baby C was born at home in a planned delivery on 12 February 2010. He died less than three hours later in hospital, after he went into respiratory arrest and could not be resuscitated. He died as a result of Group B Streptococcal infection and meconium aspiration with early bronchopneumonia.

169. The evidence before the inquest was that there was a high probability the death could have been prevented if Baby C was born in a hospital environment. However, there were complex reasons behind Baby C's parents' choice to birth

[270] T 681.

at home, which should be given due weight in assessing the choices that were made.

170. What this matter does, however, demonstrate is the importance of extensive communication between the woman and her caregivers prior to delivery, to ensure that when complications present themselves, there is a detailed plan already in place to deal with that situation and, hopefully, ensure a safe outcome for the woman and the baby.

S H Linton
Coroner
8 June 2015