QUEENSLAND COURTS

CORONERS COURT OF QUEENSLAND

FINDINGS OF INQUEST

CITATION:	**Inquest into the death of Zamia Ely-Smith**
TITLE OF COURT:	Coroners Court
JURISDICTION:	SOUTHPORT
FILE NO(s):	2018/264
DELIVERED ON:	17 September 2021
DELIVERED AT:	SOUTHPORT
HEARING DATE(s):	18 – 19 May 2021; 23 – 24 August 2021.
FINDINGS OF:	Jane Bentley, Deputy State Coroner
CATCHWORDS:	Coroners: inquest, baby, neonate, home birth, midwife, Neopuff, resuscitation, falsification of medical records.

REPRESENTATION:

Counsel Assisting:	Ms McMahon Ms Lane
Wa-Eeda Ely:	Mr Eberhardt Instructed by Behlau Murakami Grant Lawyers
Graham Smith:	Mr Holmes Instructed by Evolve Legal
Rosemary Blyth:	Mr Hickey Instructed by HWL Ebsworth Lawyers and Moray Agnew
Stephanie Oliver:	Mr Dighton Instructed by Gilshenan and Luton Solicitors

Contents

Introduction

1. Section 45 of the Coroners Act 2003 provides that when an inquest is held the coroner's written findings must be given to the family of the person in relation to whom the inquest has been held, each of the persons or organisations granted leave to appear at the inquest and to officials with responsibility over any areas the subject of recommendations.

2. These are my findings in relation to the death of Zamia Ely-Smith. They will be distributed in accordance with the requirements of the Act and posted on the web site of the Office of the State Coroner.

3. These findings and comments confirm the identity of the deceased person, when, where and how she died and the cause of her death.

Background

4. Zamia was born at 40 weeks and one day gestation at 3.40am on 10 January 2018 at the residence of her mother, Wa-Eeda Ely, and her father, Graeme Smith. Two midwives, Stephanie Oliver and Rosemary Blyth, assisted with the labour and delivery.

5. Zamia was born unresponsive with the cord around her neck. She had Apgar scores of zero at one, five and ten minutes. The midwives commenced CPR with cylinder oxygen and a Neopuff ventilator. They called 000.

6. Queensland Ambulance Service paramedics attended and intubated and ventilated Zamia and transported her to the Gold Coast University Hospital where she was admitted to the Neonatal Intensive Care Unit. She was diagnosed with severe hypoxic encephalopathy (brain damage due to lack of oxygen). She was pronounced deceased at 6.40pm on 13 January 2018.

7. Mr Smith filmed the labour and birth.

Autopsy

8. An autopsy confirmed that Zamia died from hypoxic-ischaemic encephalopathy. The Forensic Pathologist found that it was possible that Zamia succumbed to the effects of chorioamnionitis around the time of her birth, causing her to be born with an Apgar score of zero, with the development of hypoxic-ischaemic encephalopathy after she was born. However, the Forensic Pathologist could not exclude problems with the birth being the cause of Zamia's death.

Ms Ely's Pregnancy

9. Ms Ely was thirty-nine years old at the time of Zamia's birth. Her two sons were born at Coffs Harbour Hospital. The first labour took over 48 hours and resulted in a forceps delivery. Her second labour was 14 hours and she had an unassisted vaginal birth.

10. Ms Ely conceived Zamia naturally in mid-April 2017. Ultrasounds on 9 June, 11 July and 18 August 2017 reported a normal baby. There were multiple comments in the antenatal visit notes about relationship conflict between Ms Ely and Mr Smith.

11. Ms Ely decided on a home birth and engaged midwives from "My Own Midwife gc" (MOM) for that purpose.

12. On 4 January 2018 Ms Ely sent a text message to Ms Blyth to report decreased fetal movements.

13. On 7 January 2018 Ms Ely presented to the Gold Coast University Hospital (GCUH) with decreased fetal movements. A bedside ultrasound was performed by an Obstetrics and Gynaecology Registrar. Ms Ely reported deceased fetal movements of two days duration. She was 39 weeks plus six days in gestation. Ms Blyth attended with Ms Ely.

14. At that time there was no indication that Ms Ely's membranes had ruptured – an ultrasound showed there was a normal amount of amniotic fluid around the baby.

15. The doctor recommended that Ms Ely have an immediate induction with hospital birth with continuous fetal monitoring during labour. Ms Ely did not wish to be induced and stated she wished to have a home birth. The Registrar performed a vaginal examination which revealed that Ms Ely's cervix was 2 to 3cm dilated. The cardiotocography (CTG) recorded the fetal heart rate (FHR) as normal.

16. The doctor advised that a hospital birth would enable continuous fetal monitoring during labour in accordance with the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) guidelines.

17. Ms Ely declined and said she wished to be discharged home.

18. The Registrar recommended she return to hospital the following day so that further CTG could be undertaken to assess the fetal wellbeing.

19. The Registrar then discussed Ms Ely's case with her reporting Registrar who emphasised that RANZCOG does not endorse home births as they are associated with an increased risk to mother and baby and that she should emphasise this to Ms Ely.

20. The Registrar then spoke to Ms Ely again as per her discussion with the Reporting Registrar. Ms Ely agreed to return to the Maternity Assessment Unit (MAU) of the GCUH the following day for further FHR monitoring and counselling.

21. Ms Blyth said that the Registrar told Ms Ely that if she reported good fetal movements then home birth would remain an option.

22. On 8 January 2018 Ms Ely reported good fetal movement. Later that day she began to have contractions. At 10.10pm on 9 January 2018 Ms

Blyth was contacted by Ms Ely. She attended the residence at 10.40pm and assisted with the birth.

Rosemary Blyth's Records and Statement

23. Ms Blyth was a private practicing registered midwife with a Masters of Midwifery with Honours from Griffith University. At the time of Zamia's death she was a Director and practising midwife at "My Own Midwife gc" (MOM) at Ashmore on the Gold Coast. She provided MOM's medical records relating to Zamia's birth to the Coroner and also provided a statement.

24. The following information is obtained from the medical record and statement provided by Ms Blyth.

25. Ms Blyth first met Ms Ely on 9 June 2017 for an information visit regarding options of maternity care. Ms Blyth had contact with Ms Ely again on:

- 21 July 2017 (booking appointment),
- 23 August 2017 (routine antenatal visit),
- 2 September 2017 (text message),
- 22 September 2017 (text message),
- 15 October 2017 (text message in which Ms Ely advised of decreased fetal movements),
- 9 November 2017 (care plan appointment),
- 24 November 2017 (antenatal appointment),
- 5 December 2017 (text message in which Ms Ely advised she was experiencing period like pain),
- 7 December 2017 (antenatal appointment),
- 14 December 2017 (antenatal appointment),
- 21 December 2017 (home antenatal visit),
- 4 January 2018 (text message and phone call about decreased fetal movements),

- 7 January 2018 (Ms Ely reported no fetal movement overnight),
- 8 January 2018 (visit at GCUH),
- 9 January 2018 (Ms Ely advised baby moving normally),
- 9 January 2018 (labour commenced).

26. Ms Blyth provided a statement to the Coroner (based on her medical records) on 29 June 2018 in which she summarised the events of the birth of Zamia on 9 and 10 January 2018:
    - 10.10pm Mr Smith advised that Ms Ely was in labour and asked her to attend;
    - 10.40pm she arrived at their apartment;
    - 10.53pm Ms Blyth called Ms Oliver and asked her to attend as second midwife;
    - 10.56pm set up of equipment including oxygen and Neopuff and suction;
    - 11.20pm Ms Oliver arrived and checked the emergency equipment;
    - 11.45pm fetal heartrate was taken;
    - 12.05am Ms Ely got in the birthing pool;
    - 12.16am FHR taken;
    - 12.28am FHR taken;
    - 12.40am FHR taken and Ms Ely got out of the pool;
    - 1am Ms Ely moved to bed; FHR taken;
    - 1.22am FHR taken and Ms Ely and Mr Smith left resting in their room while the midwives rested on the sofa;
    - 2.50am Ms Ely said she could feel the baby's head, FHR taken;
    - 3.05am cervix almost fully dilated except for the anterior lip – pushed cervix back over baby's head – baby in a direct occiput posterior position - FHR taken;
    - 3.07am FHR taken – normal;
    - 3.08am FHR taken – within normal limits;
    - 3.21am FHR taken – normal;
    - 3.27am baby's head descending - FHR taken – normal;

- 3.28am FHR taken – 95 – 125 BPM;
- 3.30am – 3.35am FHR taken after each contraction;
- 3.35am FHR taken – 109 BPM;
- 3.37am FHR taken – 80 BPM;
- 3.38am head out but chin not;
- 3.39am Ms Blyth brought the chin out;
- 3.40am Zamia was born with the cord around her neck, body and foot.

27. Ms Blyth stated she believed Zamia was shocked from the birth – she was pale and floppy. She didn't respond to stimulation so Ms Blyth got some scissors and cut the cord and passed her to Ms Oliver who dried her off. When Zamia did not breathe Ms Oliver began intermittent positive pressure ventilation (PPV) with the Neopuff. After thirty seconds when Zamia had not responded Ms Blyth called 000. During that phone call Ms Oliver advised that Zamia's heart rate had dropped to 60 BPM so Ms Blyth handed the phone to Mr Smith and took over chest compressions.

28. Ms Blyth said that she first became concerned at 3.39am when the chin was not born as it could have been a sign that the cord was around Zamia's neck.

29. The notes Ms Blyth provided as her contemporaneous notes indicate the following FHR:
    - 9 January
        - 22:46 – 154
        - 22:56 – 148
        - 23:20 – 146
        - 23:45 – 152
    - 10 January 2018
        - 0.05 – 127
        - 0.40 – 140
        - 1.00 – 136
        - 1.22 – 142

- 2.50 – 135
- 3.05 – 135-147
- 3.07 – 140
- 3.09 – 134
- 3.12 – 135
- 3.14 – 150
- 3.17 – 133
- 3.19 – 147
- 3.21 – 135
- 3.22 – 140
- 3.27 – 132
- 3,28 – 95-125
- 3.30 – 115
- 3.33 – 117
- 3.35 – 109
- 3.37 – 80

30. At 6.20am on 10 January 2018 the record contains the following, "Written in retrospect":

Baby born at 3.40 (estimated) with cord around neck, body and foot. Fetal heart rate was less than 100 BPM; babe pale, not breathing and no tone.

31. It was stated in the record that Ms Blyth then made further amendments to the notes on 13 January 2018 including:

On entry 10/01/18 03:28 hrs – I added "-125 bpm" after "FH 95" as that was my clear memory of the foetus' heart rate at this time.

32. Ms Blyth added further amendments indicating that nearly all of the notes stated to be written on 10 January 2018 were actually written on 14 January 2018 in conjunction with Ms Oliver.

Stephanie Oliver's Statement

33. Ms Oliver was a private practicing registered midwife. At the time of Zamia's death she was a Director and practising midwife at MOM at Ashmore on the Gold Coast. Ms Oliver provided a statement to the Coroner in which she gave the following information.

34. Ms Oliver arrived at the apartment after Ms Blyth. She was responsible for making notes on the computer whilst Ms Blyth provided care to Ms Ely.

35. At 3.38am Ms Blyth advised that the baby's head was out. At 3.39am she said that the chin was not out and then advised she had manually helped with the chin and the whole head was now out. Ms Oliver said that she moved away from the computer to assist and turned on the oxygen.

36. At 3.40am the baby was born with cord around her neck, body and leg. Ms Blyth placed her on Ms Ely's chest. The baby appeared to be in shock. Ms Oliver dried and stimulated her with a towel. She asked Ms Blyth to clamp and cut the cord so she could start resuscitation. When Zamia was separated Ms Oliver took her to the resus area and started positive pressure ventilation (PPV) at a rate of 40-60 breaths per minute using the Neopuff with the oxygen set on 8 litres per minute.

37. Ms Blyth was checking the heart rate and advised that she could see the chest rise and the heart rate was 100 bpm. Ms Blyth called 000 and advised that a neonatal resus at a planned home birth was in progress.

38. Ms Oliver repositioned Zamia and the mask as she was not happy with the chest rise. She performed suction and then reapplied the mask and continued PPV. After 30 seconds she found the heart rate was down to 60 so asked Ms Blyth to commence chest compressions at a rate of 3:1.

The Inquest

39. The inquest commenced in Southport on 18 May 2021 and continued on 19 May and 24 August, concluding on 25 August 2021. Rosemary Blyth, Stephanie Oliver, James Irvine, Marie Heath, Dr Rod Allen and Dr Stephen Rashford gave evidence at the inquest.

Issues

40. In accordance with the pre-inquest hearing, the following issues were explored at the inquest:
    a. Whether the care provided by midwives, Rosemary Blyth and Stephanie Oliver at the birth of Zamia Ely-Smith was adequate; and
    b. The appropriateness of a home birth for Zamia Ely-Smith.

41. At the inquest it was revealed that the medical records of MOM relating to the birth of Zamia and provided to the Coroner by Ms Blyth and Ms Oliver, were incorrect, having been altered by Ms Blyth and Ms Oliver after Zamia died.

Witnesses

Rosemary Blyth

Falsification of Records

42. At the commencement of her evidence Ms Blyth indicated that she wished to amend her statement of 29 June 2018. She stated that she and Ms Oliver had altered the MOM contemporaneous record of the birth. She said they had made changes to the recorded FHRs and added FHRs and maternal heart rates that she had not, in fact, taken at all. Ms Blyth also said that the APGAR score of 1 given at 5 mins after the birth was incorrect and should have been recorded as 0.

43. She said she was unable to specify the content of the original record as she had not made a copy prior to amending it. Ms Blyth said that she and Ms Oliver decided to make these amendments on 13 January 2018.

44. Ms Blyth admitted that she changed the record to create a false record to falsely reflect that the FHRs were taken appropriately and accurately.

45. She said that the recorded FHRs between 3.33am and 3.37am were fabricated by her as she did not take the FHR or maternal pulse at all during those times.

46. She admitted that during the last eight minutes of labour she did not auscultate the FHR at all.

47. She said that the Apgar score of 1 at one minute after birth was incorrect and that, in fact, Zamia's Apgar score was zero.

48. She admitted she knowingly included this false information in the statement she provided to the Coroner on 28 June 2018 when she was required to provide a statement to assist the coronial investigation.

49. Ms Blyth initially prevaricated about her reasons for falsifying the records but finally admitted, that she did so in order to make her actions in relation to Zamia's birth look better.

50. Despite these admissions, Ms Blyth continued to insist that her actions on the night were appropriate.

51. Ms Blyth said that after Zamia and Ms Ely were taken to hospital Ms Oliver said to her that she thought they were in trouble.

52. Ms Blyth said that she first altered the record when she was at home on 13 January 2018 after she had found out that Zamia had died. She said that was the first time she had looked at the notes as they had all been made by Ms Oliver on the night of the birth.

53. On 14 January 2018 Ms Blyth and Ms Oliver sat down together to alter the notes. They added FHRs at 3.30, 3.33, 3.35 and 3.37am that had

not been taken. Ms Blyth said she could not recall what other entries they altered.

54. Ms Blyth agreed that she set out to falsify the medical record of Zamia's birth. She knew that she should have disclosed those alterations to the Coroner and knew that the information was important to the coronial investigation but did not disclose the alterations when she provided her statement to the coroner.

55. Ms Blyth denied any collusion with Ms Oliver in the preparation of their statements or in respect of their evidence at the inquest.

Adequacy of Care and Appropriateness of Home Birth

56. Ms Blyth accepted that Ms Ely advised her she was experiencing decreased fetal movements on 4 January 2018. Ms Blyth's notes state that she told Ms Ely to go to the MAU urgently but she declined and asked Ms Blyth to visit her that afternoon. After further discussion Ms Ely said she would go to hospital but wanted Ms Blyth to go with her and would contact her later.

57. Later that day Ms Ely sent Ms Blyth a text message stating she thought she was fine and would book an appointment at the hospital on Monday. Ms Blyth told Ms Ely to contact her if she changed her mind. Later that day Ms Ely told Ms Blyth that she was no longer concerned about the baby's movements.

58. The MOM records show that on 7 January 2018 Ms Ely sent Ms Blyth a text message stating that the baby had not moved since the night before and she was "freaking out".

59. The notes record that Ms Ely was advised by the Registrar to have an induction of labour and hospital birth and Ms Blyth recommended the same but Ms Ely did not wish to stay in hospital and if she reported good fetal movements home birth would remain an option.

60. Ms Blyth gave evidence that it was the Registrar who told Ms Ely that if she reported good fetal movements home birth remained an option.

61. Ms Ely sent Ms Blyth a text message stating, “I do not want to have baby in hospital” to which Ms Blyth replied, “Great – that is what we will talk about when I get there.”

62. Ms Blyth agreed that she could have refused to proceed with the home birth but she trusted Ms Ely when she said she thought her baby was well.

63. On 9 January 2018 Ms Ely sent Ms Blyth a text message stating that her membrane had not ruptured but she still had a “light bloody flow” which “went on for 8 hours yesterday”.

64. Ms Ely asked if she should book in for an examination in hospital the next day. Ms Blyth replied that it was not unusual, she should rest today and call her tomorrow morning and she would tell her whether to go to hospital for examination. Ms Blyth told Ms Ely she didn’t get home until after 8am this morning and was trying to catch up on some rest.

65. Ms Blyth agreed that she left Ms Ely in labour for 24 hours without any checks or monitoring.

66. Ms Blyth stated she didn’t think to double clamp the cord to preserve the cord gas which would have revealed the cause of Zamia’s death.

67. Ms Blyth said that there were no clinical indications of vaginal infection or chorioamnionitis.

Stephanie Oliver

68. Ms Oliver is an extremely experienced midwife who has been involved in over 2000 births during her career.

69. Ms Oliver agreed that the record had been altered but said that she was unable to recall whether she or Ms Blyth had made the computer entries which altered the record. She also said that she understood that the

changes were made so as to bring the contemporaneous record into step with Ms Blyth's recollection, rather than to deliberately falsify the records. She admitted, however, that she knew that the record should not have been altered.

70. Ms Oliver stated that she had not seen Ms Blyth's statement for the Coroner prior to writing her own but when it was pointed out to her that some parts of both statements were identical she admitted that she may have cut and pasted some parts of Ms Blyth's statement in compiling her own.

71. Ms Oliver gave evidence that she recalled Ms Blyth advising that Zamia's heart rate was 77. She said that she only became concerned when Ms Blyth told Ms Ely to get out of the pool. That occurred twelve minutes after the 77bpm heart rate was observed.

72. Ms Oliver said that she palpated the cord after Zamia's birth and her heart rate was 100.

73. Ms Oliver said that Zamia was not weighed.

74. Ms Oliver said, that as the second midwife, her job was to assess and treat the baby at the time of birth, to assist in any emergency that should occur and to help during the birth if requested.

75. Ms Oliver said that she had no concerns about anything she saw during the birth.

76. She said she does not recall being fatigued at the time of the birth even though she agreed that she'd had only two hours sleep before being awoken to attend.

77. Ms Oliver agreed that none of the FHRs taken from 3.10am were reassuring and accepted that none were correctly recorded in the altered medical record.

James Irvine

78. Mr Irvine is the paramedic who intubated and ventilated Zamia at the residence. He said that if a baby is born not breathing but with a pulse the first step is to ventilate and then begin compressions. In his opinion commencing ventilation 90 seconds after the birth is too long a delay.

Marie Heath

79. Ms Heath is a very experienced midwife and the National President of Midwives Australia. She is a member of the NSW Nurses and Midwives Association and the Australian Nursing and Midwifery Federation.

80. Ms Heath provided a statement setting out her opinion as to the appropriateness and adequacy of the conduct of Ms Blyth and Ms Oliver based on the video footage and a transcript of the video footage of the birth.

81. In her statement Ms Heath stated that the second stage of labour commenced at the beginning of the video. She said that Ms Blyth was very attentive to Ms Ely, and auscultations were in accordance with RANZCOG guidelines for second stage of labour:

> *Intermittent auscultation with a doppler was undertaken to assess fetal heart rate regularly between contractions and listened to for adequate intervals to review that fetal heart rate.*

82. Ms Heath concluded that Ms Blyth followed appropriate assessment and provided care as would be expected of any reasonable midwife including regularly assessing FHR. She said that it was reasonable to assume the FHR deceleration was caused by “head compression” and that Ms Blyth reacted appropriately by attempting to expedite the birth. Ms Heath opined that it was reasonable not to call an ambulance when the FHR decreased at the end of the birth because the priority was to birth the baby.

83. Ms Heath gave evidence at the inquest and said that after hearing the evidence of Ms Blyth she no longer maintained that the auscultations

were appropriate, however, it was not always practical to adhere to the guidelines strictly.

84. Ms Heath said that alteration of medical records is absolutely improper.

85. Ms Heath said that taking into account the decreased fetal movements and the hospital visit of 8 January home birth was not a good option for Ms Ely. Had Ms Heath been the midwife she would have requested a further and more comprehensive examination of Ms Blyth by a more senior doctor. She would have had a "hard discussion" with Ms Ely setting out the risks of a home birth which should have been carefully documented and signed by Ms Ely.

86. Ms Heath said that in the absence of those steps including the further examination of Ms Ely, she would have refused to undertake a home birth.

87. Ms Heath said that she could not find any evidence that Ms Blyth had recommended screening for gestational diabetes mellitus (GDM) and that recommendation should have been made.

88. Ms Heath said that she agreed with Dr Allen's conclusion that auscultations were not appropriate in that:

- They did not commence up to 60 seconds after the end of the contraction;
- The length was insufficient – they should have continued for at least 30 seconds and some were as short as 15 seconds;
- There was no auscultation in the last 8 minutes of labour;
- Ms Blyth was calling out numbers that bore no resemblance to the audible auscultations;
- They took no action upon detection of significant FHR abnormalities such as checking the maternal heart rate and temperature, re-positioning the mother, removing her from the pool, rehydrating the mother, continuing to monitor the FHR, transfer to hospital.

89. Ms Heath stated that she agreed with the conclusions of Dr Allen that Ms Ely had significant antenatal indications to abandon the home birth and the intermittent auscultation was not performed correctly, recorded accurately, interpreted properly or actioned appropriately.

Dr Rod Allen

90. Dr Allen reviewed the medical records created by the midwives and the video of the birth. He provided an opinion as to the circumstances of Zamia' birth and death.

91. Dr Allen, in his initial report, concluded that the Ms Ely's labour was not managed appropriately as:

- Ms Ely had significant antenatal indications to abandon the home birth;
- the intermittent auscultation was not performed correctly, recorded accurately, interpreted properly or actioned appropriately;
- the cord was no clamped appropriately;
- the delivery of the head was not managed appropriately;
- there was a failure to recognise likely fetal compromise and transfer Ms Ely to hospital in a timely fashion.

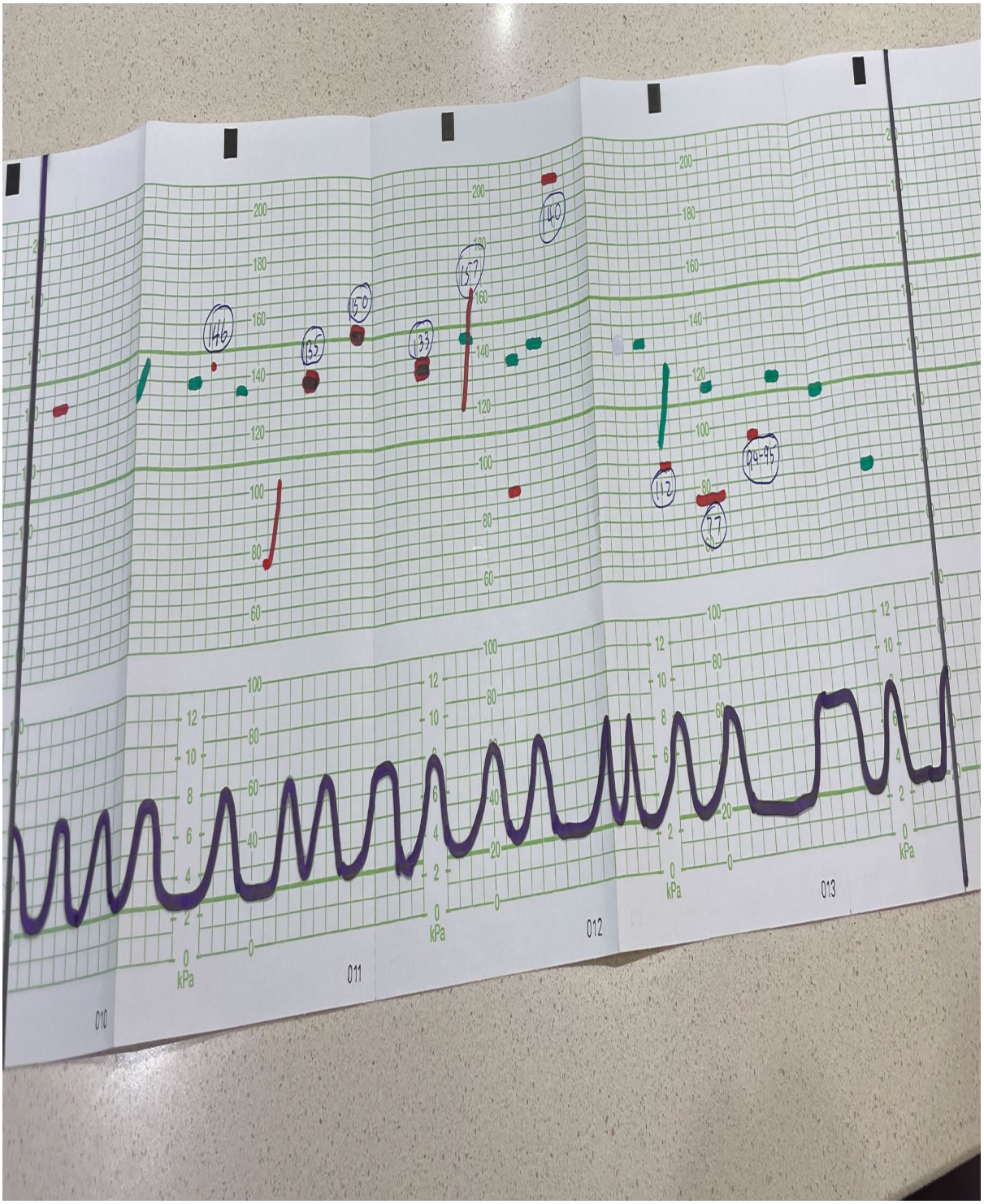
92. Dr Allen was present in court for the evidence of Ms Blyth, Ms Oliver and Ms Heath.

93. He gave evidence on 23 August 2021.

94. Dr Allen gave evidence that when he first reviewed the records of the midwives he was confused. After hearing their evidence he made a graphical representation of the actual FHRs as calculated by him by listening to the video of the birth, and the false FHRs that were altered in their medical records.

95. Dr Allen stated that Ms Ely was in active labour from 1.22am. He concluded that the notes were amended to give the impression that she was not in labour at 11.20pm when she was sent to bed and the

midwives went to sleep in the lounge because, under the guidelines, they should have been auscultating the FHR every 15 minutes during that period.



96. Dr Allen produced the above graph (which was a typical CTG printout which would be obtained from continuous monitoring of a birth in a hospital), which records the observations commencing from 3am on 10 January 2018 and illustrates the next forty minutes of Zamia's birth. Dr Allen compiled the graph using the following data:

- the thick line at the bottom of the page represents the contractions;
- the green marks represent the FHR as recorded in the midwives' altered medical records;
- the red marks represent the actual FHR where Dr Allen was able to discern it from the video;
- the numbers in circles are the FHR called out by Ms Blyth and recorded on the video.

97. Dr Allen identified that Ms Ely was experiencing good labour for that period – she had 17 contractions in 40 minutes. She was contracting exceptionally well from 3am on.

98. Dr Allen concluded that Ms Blyth was able to accurately record the FHR, which is illustrated by the three heart rates of 135, 150 and 133 which accord with his calculation from the video.

99. Dr Allen stated that, due to his long experience in obstetrics, he is able to discern a concerning FHR merely from listening to it and he believes that the midwives would be similarly experienced and able.

100. Dr Allen concluded that Ms Blyth and Ms Oliver altered the records of the FHR to falsely give an indication that the FHR was within normal limits until the end of the birth.

101. Dr Allen noted the abnormal FHR of 77 at 3.10am (not called by Ms Blyth) and said the FHR should have been monitored from that time on. The maternal HR should also have been taken. That FHR could be indicative of a pathological condition. He is of the opinion that the FHR did not return to normal from that time on.

102. The next three readings were correct and were called out by Ms Blyth (135, 150 and 133). The next one was called by her to be 157 and recorded as 147 but both of those figures were incorrect as the actual FHR started at 120 and increased to more than 160. Dr Allen said this was another abnormal FHR which should have caused concern and further auscultation. However, Ms Blyth waited 90 seconds until she auscultated again when the FHR was 88.

103. The next auscultation was taken at 3.23am for 45 seconds. Ms Blyth called it as 140 (and it was not on the altered notes) but it was actually 200 bpm.

104. There was then no auscultation of the FHR for 4 to 5 minutes, although the altered notes falsely reflect a FHR of 132.

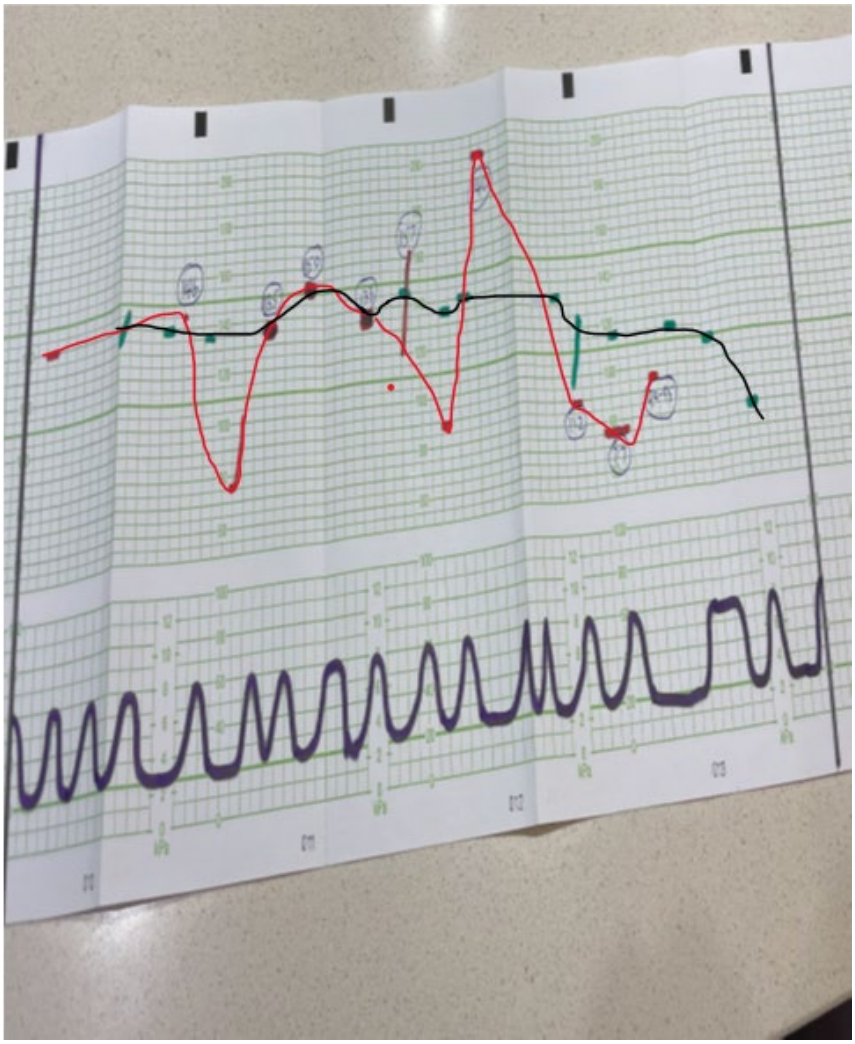
105. The next FHR was called by Ms Blyth as 112. It was actually 88 and the midwives recorded it in their altered notes as 95-125 to falsely indicate it was in the normal range.

106. The next auscultation, at 3.29am, went for 70 seconds and showed a flat constant FHR of 77. Ms Blyth correctly called that as 77 but falsely recorded it as 115 in the notes.

107. At 3.32am Ms Blyth correctly called the FHR as 94-95 bpm but that was not in the altered notes.

108. Ms Blyth did not auscultate the FHR again (for the last eight minutes of the birth) although she noted that she did and fabricated the FHR to represent they were in the normal range.

109. On the photograph below of Dr Allen's chart the black line follows the FHRs as falsely stated by the midwives and the red line follows the actual FHR. The red line, i.e. the true heart rates, demonstrates the true situation of fetal distress whilst the false heart rates provide a totally different picture of the birth.



110. As Dr Allen identified, the black line would indicate a perfectly healthy baby whilst the red line documents the demise of a baby.

111. He concluded that the midwives altered the record to falsely represent a normal birth and that they in fact had concerns during the birth but did not act on them.

112. At the time of the initial drop in the FHR to 77 Ms Ely should have been taken out of the pool and put on the bed so that the FHR could be monitored properly.

113. Dr Allen said that if the midwives had a portable CTG they could have continuously monitored the FHR.

114. Dr Allen said that it was without doubt that the ambulance should have been called at 3.10am as per the RANZCOG guidelines which require an immediate call on an abnormal FHR.

115. Dr Allen said that since hearing the evidence of the midwives and realising that they had amended the record to make their actions appear more appropriate, he reviewed the entire MOM records for obvious omissions and deletions. He found one glaring omission - the record of how long Ms Ely's membranes had ruptured prior to the birth. That data should have been recorded.

116. Dr Allen explained that the fact that chorioamnionitis was found in the autopsy report means that the uterus was infected. This occurs in the setting of rupture of membranes particularly where the rupture occurs more than 18 hours prior to birth as the rupture allows bacteria from the vagina to enter the uterus and the longer the period the greater the risk of infection. Chorioamnionitis is a cause of fetal brain damage and fetal death. Where the membranes have ruptured and birth has not occurred within 18 hours of that event birth should be induced in a hospital.

117. Dr Allen noted that Ms Blyth's notes at 10.46pm on 9 January 2018 stated, "no membranes felt". Dr Allen said that any midwife would have ascertained the time of rupture of the membranes. He said that is an obviously missing piece of data in the records.

118. The record Ms Blyth made after Zamia's birth on 10 January 2018[1] indicated rupture of membranes 6 hours and 54 minutes prior to birth i.e. at about 8.46pm on 9 January 2018. There is no record of that

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anywhere else and in fact, there is a record which is inconsistent with that time.

119. In the earlier records of MOM[2] it is indicated that the membranes ruptured at midnight (0:00) on 9 January 2018 i.e. 27 hours and 40 minutes prior to birth. That record is consistent with Ms Ely stating that she'd had a "light bloody flow" for the whole day on 8 January 2018.

120. Dr Allen concluded that Ms Ely's membranes ruptured some 27 hours prior to the birth as per the earlier record.

121. Dr Allen said that had Ms Ely been transferred to hospital at 10.46pm on 9 January 2018 when it was clear that the membranes had ruptured and chorioamnionitis was a possibility, Ms Ely could have been tested for that and Zamia administered antibiotics through Ms Ely and she could have been saved.

122. Dr Allen concluded that it was likely that Zamia was born lifeless with no heart rate and that when Ms Blyth called out that she had a heart rate of 100 that was false. He considers it possible that Zamia had no heart beat for the last eight minutes of birth.

123. Dr Allen concluded there was no evidence that Zamia died from the cord being around her neck. He said that a single loop around the neck is very common (about 30% of births) and is not dangerous unless it is compressed. He said it is almost impossible for a single loop of cord to stop the flow of blood to a baby's head. Further Zamia did not die from occlusion of blood from the head due to the cord around her neck as, if she had, she would have had a swollen head.

124. Dr Allen concluded, taking into account all of the evidence, that it is mostly likely that Zamia died from chorioamnionitis due to Gardnerella Vaginalis due to rupture of the membranes occurring more than eighteen hours prior to birth and subsequent lack of transfer to hospital

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and consequent lack of appropriate medical treatment and management in hospital.

125. Dr Allen said there were missed opportunities for intervention at the following times:

- decreased fetal movement reported on 4 January to 7 January 2018;
- fetal compromise evident on 7 January 2018;
- when the midwife ascertained the membranes had ruptured she should have established the time of rupture and if she was unable to, transfer Ms Ely to hospital for tests for chorioamnionitis;
- on 8 January at 2.16pm when Ms Ely told Ms Blyth about her "light bloody flow" and asked her whether she should go to hospital, Ms Blyth should have told her to go to hospital for CTG monitoring and examination to ascertain whether the membranes had ruptured;
- the second stage of labour showed definite fetal distress;
- if QAS had been called at 3.10am or even 3.29am it is likely that paramedics would have been present for the birth of Zamia and commenced effective resuscitation immediately.

126. Dr Allen said the single clamping of the cord was a panicked reaction – any midwife or doctor would always use at least a double clamp, and a triple clamp, which would have been the best option, would have taken one second more.

127. Dr Allen concluded that there was no effective resuscitation of Zamia until the paramedics arrived and intubated her, however, it is possible that she had already suffered brain damage before birth.

128. Dr Allen stated that had Ms Ely remained in hospital on 7 January 2018 and had continuous monitoring and an induced labour it is highly likely that Zamia would have been a healthy baby. Had she required resuscitation on birth she would have received it from a specialist

neonatologist resuscitation team with the benefits of a fully equipped birthing suite or operating theatre.

129. Dr Allen said there are no medical benefits of a home birth to a mother or the unborn child. A home birth poses medical risks to both mother and baby. He would never recommend a home birth. The interests of the unborn child are best met in a hospital. Midwives often birth children in hospitals but if there are any concerns they can be addressed by a neonatologist team.

Dr Stephen Rashford

130. Dr Rashford is the Medical Director of Queensland Ambulance Service.

131. Dr Rashford's evidence was that it is likely that the resuscitation of Zamia would have been carried out more efficiently if QAS had been called earlier because firstly, it would have commenced sooner after her birth and secondly, they would have had more paramedics present.

132. He said the purpose of resuscitation of Zamia would have been to prevent secondary injury i.e. brain damage due to lack of oxygen and if paramedics were present at the time of the birth her chances would have been optimised.

133. He said that paramedics could have and did carry out resuscitation more effectively than the midwives due to the equipment they had and their training in that area.

134. Dr Rashford said that had QAS been called at 3.10am the midwives would have been advised to transfer Ms Ely to hospital immediately unless the birth was imminent. Fetal distress would have been assumed and prepared for and it would have best been carried out in a hospital by neonatal specialists.

135. Dr Rashford said that overall the midwives had the structure of the resuscitation correct however, he could not see Zamia's chest rising with the ventilation. It is possible that Ms Oliver was attempting to

address the issue of Zamia's airway but he could not be sure because she was not verbalising what she was doing.

136. The autopsy indicated there was no anatomical issue with Zamia's airway so there were a number of reasons why the ventilation was not successful. Zamia could have had collapsed lungs at birth or she could have aspirated fluid. In either case she still could have been ventilated by a paramedic.

137. Dr Rashford said that under the ANZCOR (Australian and New Zealand Resuscitation Councils) Guidelines Positive pressure ventilation (PPV) should have been commenced within one minute of birth.

138. If Zamia had been born with signs of life it may have been appropriate to put her on Ms Ely's chest and stimulate her but Zamia was born very flat and resuscitation should have been commenced immediately.

139. However, he said that Zamia was born very "flat" and in a parlous state and it is impossible to ascertain whether the earlier arrival of the paramedics would have changed the outcome for Zamia.

140. Dr Rashford said that it is now widely recognised in many specialities including medical specialities, that persons under stress experience a load on the frontal lobe of the brain which affects their decision-making abilities. This is being addressed by the use of checklists which are now found in all resuscitation rooms in hospitals.

141. He said that it is important that all midwives undertake an Advanced Neonate Resuscitation course.

142. Dr Rashford said that midwives should not attempt intubation as it requires a very experienced paramedic to undertake that procedure. He said that bag and mask ventilation is adequate equipment for a midwife but ideally they could carry a laryngeal mask which has advantages in gaining a patent airway but is not a dangerous procedure such as intubation.

143. Dr Rashford said that a hospital is the optimal place to deal with difficulties that arise during birth and, from a medical perspective, the safest place to have a baby.

Findings and Conclusions

The scope of the Coroner's inquiry and findings

144. An inquest is not a trial between opposing parties but an inquiry into a death. The scope of an inquest goes beyond merely establishing the medical cause of death.

145. 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 and, in appropriate cases, with a view to reducing the likelihood of similar deaths.

146. As a result, a coroner can make preventive recommendations concerning public health or safety, the administration of justice or ways to prevent deaths from happening in similar circumstances in future. A coroner must not include in the findings or any comments or recommendations, statements that a person is or may be guilty of an offence or is or may be civilly liable.

147. Proceedings in a coroner's court are not bound by the rules of evidence. That does not 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 origin or source when determining what weight should be given to the information.

148. A coroner should apply the civil standard of proof, namely the balance of probabilities. However, the more significant the issue to be

determined, the more serious an allegation or the more inherently unlikely an occurrence, then the clearer and more persuasive the evidence needs to be for a coroner to be sufficiently satisfied it has been proven.

149. If, from information obtained at an inquest or during the investigation, a coroner reasonably suspects a person has committed an offence, the coroner must give the information to the Director of Public Prosecutions in the case of an indictable offence and, in the case of any other offence, the relevant department. A coroner may also refer a matter to the Criminal Misconduct Commission or a relevant disciplinary body.

Submissions

150. I have taken into account the submissions of all parties and, on the whole, I agree with them.

151. Mr Eberhardt for Zamia's father, submitted that consideration should be given to passing laws which require births to take place only in hospital. Such a recommendation is outside the scope of this inquest and would require consideration of complex moral and medical issues which the inquest did not explore.

Findings

152. Ms Blyth's dishonesty in colluding to falsify medical records and providing those records and a knowingly false statement for a coronial investigation is astounding and more so because of her apparent high standing as a respected medical professional and director of a company offering medical services.

153. Her dishonesty continued until she was called to give evidence and after she had been afforded the benefit of s 39 of the *Coroners Act* 2003 i.e. a guarantee that her evidence could not be used against her in criminal proceedings.

154. I accept Dr Allen's evidence and Mr Eberhardt's submissions and find that Ms Blyth amended the records to remove all readings which were outside the normal range. False readings were inserted to reinforce the false perception that Zamia was not in distress. In the last ten minutes of the birth the record has no correlation to the actual observations.

155. Ms Blyth has neither credibility nor reliability. The only accurate evidence of what occurred at the birth is the video and Dr Allen's explanation of it.

156. I find that Ms Blyth should have refused to assist Ms Ely in a home birth due to the decreased fetal movements on 4 and 7 January 2018 and the recommendation of the doctor at GCUH that she be admitted to hospital and have labour induced. I do not accept any evidence of Ms Blyth in relation to conversations she had with Ms Ely after that recommendation and find that Ms Blyth should not have continued with a home birth in the absence of further positive assessments of fetal well-being.

157. I do not accept Ms Blyth's evidence that there was no evidence of chorioamnionitis. She recorded rupture of the membrane at midnight on 8 January (27 hours and 40 minutes before the birth) and this is corroborated by the text messages sent by Ms Ely about fluid loss and the note of 10.46pm on 9 January, "no membranes felt". It is also consistent with the autopsy findings of chorioamnionitis.

158. Ms Blyth should have been aware of the risk of chorioamnionitis and advised Ms Ely of the risk and that the risk should be managed in hospital.

159. I prefer the evidence of the GCUH Registrar over that of Ms Blyth and do not accept that the Registrar told Ms Ely that if she reported good fetal movements home birth would remain an option. I find that it was Ms Blyth who made that statement to Ms Ely.

160. I find that Ms Oliver was also a dishonest witness. She denied that she acted dishonestly when amending the records. It is abundantly clear that she did. She compounded her dishonesty by the provision of the falsified medical records to the Coroner and failing to disclose her improper behaviour in her statement to the Coroner. I cannot rely on any of her evidence. She has no credibility.

161. Ms Blyth and Ms Oliver had only one possible motive for amending the records of the birth, changing the FHRs and inserting entirely false readings that they did not take and that was to hide what they perceived as a failure to take appropriate action at an appropriate time during the birth.

162. I find that neither Ms Blyth nor Ms Oliver would have disclosed their dishonesty or the true circumstances of Zamia's birth but for the video recording of the birth made by Mr Smith which disclosed the facts.

163. I accept that Ms Oliver had no role in the pre-natal care of Ms Ely and was at the birth only as a second mid wife. Considering Ms Oliver's lengthy experience as a midwife I would expect that she would be able to discern a concerning FHR from merely listening to it (as per Dr Allen's evidence).

164. Ms Oliver gave evidence in regard to her ability to discern a concerning FHR by listening to the Doppler. When asked about the 3.29am FHR of 77bpm she said, "I could clearly hear the – the sounds that the heart rate was down myself." She then said that the heart rate was low and asked Ms Blyth what was happening.

165. Mr Dighton submitted that the first occasion upon which Ms Oliver had direct knowledge of possible fetal compromise was at 3.29am when she heard the Doppler reading of 77bpm.

166. I do not accept this submission. Ms Oliver can be seen on the video to be paying close attention to Ms Ely whilst she was in the pool from at least 3.10am when the FHR of 90bpm was taken by Ms Blyth. She then

continued to watch Ms Ely and must have been aware of the FHR of 90bpm taken but not called by Ms Blyth with the next one clearly rising considerably to 200bpm, incorrectly called as 140bpm by Ms Blyth.

167. Ms Oliver was standing at the edge of the pool when the FHR of 200bpm was taken. She was still there when Ms Blyth took the heart rate of 90 which she called as 112.

168. Ms Oliver was definitely paying close attention prior to the taking of the FHR of 77bpm at 3.29am. I therefore do not accept that she had no knowledge of a concerning FHR prior to that time.

169. Once Zamia was born Ms Oliver took responsibility for resuscitation. Ms Blyth took little part in the resuscitation except for following Ms Oliver's instructions to call the ambulance and then to assist her with the CPR.

170. I find that Ms Blyth and Ms Oliver should have called an ambulance at 3.10am when Zamia's heart rate started dropping. I find that it did not recover to the normal range at any time between then and her birth. I reject the evidence of Ms Blyth and Ms Oliver that it did.

171. I find that Zamia's death was preventable.

172. Had Ms Blyth refused a home birth on 7 January 2018 when decreased fetal movement was obvious and hospital birth was recommended by the Registrar Zamia's death could have been prevented.

173. Had Ms Blyth refused a home birth when she knew Ms Ely's membranes had ruptured, Zamia's death could have been prevented.

174. Had Ms Blyth told Ms Ely to go immediately to the hospital for an examination on 8 January when Ms Ely advised of the bloody flow for eight hours the previous day and asked whether she should go to the hospital, it is probable Zamia's death could have been prevented.

175. Had Ms Blyth sent Ms Ely to hospital at 10.46pm on 9 January 2018 when she found that the membranes had ruptured if she did not know

when that occurred (although I am satisfied that she believed that it had occurred nearly 13 hours prior as per the MOM records), it is likely that Zamia's death could have been prevented.

176. Had Ms Ely stayed in hospital on 7 January 2018 or returned to hospital on the afternoon of 8 January 2018 and had Zamia in hospital it is very likely that she would have been a healthy baby. It is clear that there were circumstances known to Ms Blyth which contraindicated a home birth but she did not act on those and advise Ms Ely that she was unable to proceed with a home birth or advise Ms Ely appropriately of the risks involved with a home birth so that she could make an informed decision.

177. Had Ms Blyth or Ms Oliver called an ambulance at 3.10am on 9 January 2018 when Ms Blyth detected a FHR of 77 it is possible that Zamia's death could have been prevented.

178. I find that the auscultations performed during the birth were inadequate and not in accordance with the guidelines.

179. I find that earlier resuscitation was unlikely to have made any difference to Zamia's outcome as she was beyond saving at the time she was born.

Findings required by s. 45

Identity of the deceased – Zamia Ely-Smith

How she died – Zamia died from hypoxic-ischaemic encephalopathy due to chorioamnionitis due to Gardnerella Vaginalis due to rupture of membranes occurring more than eighteen hours prior to her birth and a subsequent lack of appropriate medical treatment and management in hospital.

Place of death – Gold Coast University Hospital SOUTHPORT QLD 4215 AUSTRALIA

Date of death– 13/01/2018

Cause of death – Chorioamnionitis

Comments and recommendations

I make the following recommendations:

Queensland Health consider the development of a standard guideline for planned home births which would include the following:

a. Recommendations regarding suitability for home birth;
b. Reasons for transfer of mother to hospital during home birth;
c. An information sheet, compiled in conjunction with RANZCOG, to be provided to pregnant women and their partners advising of the risks associated with home birthing and the medical advantages of birthing in a hospital.
d. A comprehensive list of required equipment to be taken to a home birth including:
    i. A portable CPG monitor; and
    ii. A laryngeal mask.
e. Minimum standards for practitioner training including advanced neonatal resuscitation training
f. An emergency checklist for the resuscitation of neonates for the use of midwives assisting in home births.

I close the inquest.

Jane Bentley
Deputy State Coroner
SOUTHPORT