



# CORONERS COURT OF QUEENSLAND

## FINDINGS OF INQUEST

**CITATION:** **Inquest into the death of Baby M**

**TITLE OF COURT:** Coroners Court

**JURISDICTION:** Gladstone

**FILE NO(s):** COR 2016/585

**DELIVERED ON:** 21 September 2018

**DELIVERED AT:** Mackay

**HEARING DATE(s):** 21-23 August 2018

**FINDINGS OF:** Magistrate D O'Connell, Coroner

**CATCHWORDS:** CORONERS: Inquest – death of newborn infant within 6 hours of birth – Group B Streptococcal disease (GBS) – infant dropped on her head minutes after birth – prescribed antibiotics not administered as directed – cause(s) of death – prevention of future deaths in similar circumstances.

**REPRESENTATION:**

Counsel Assisting	Mr J M Aberdeen
Nursing Staff	Ms S Robb i/b Roberts & Kane Solicitors
Central Queensland Hospital and Health Service (CQHHS)	Mr D Schneidewin i/b Barry Nilsson Lawyers
Family of Baby M	Ms H Blattman i/b Murphy Schmidt Solicitors

## **Baby M**

- [1]. On 11 February 2016 baby M<sup>1</sup> died shortly<sup>2</sup> after being born in a hospital birthing suite. When she was born her condition appeared poor but she suffered an acute injury when a nurse fell whilst carrying her to another birthing suite because an item of a medical apparatus<sup>3</sup> was unavailable at the first birthing suite. The parents had concerns about the pre-natal care, timeliness of their presentation to hospital, the baby's condition when born, the suitability of the equipment in this birthing suite, the fall by the nurse<sup>4</sup>, and resuscitation efforts.
- [2]. The medical issues were complex with some differences of opinion requiring resolution by me.

### **Tasks to be performed**

- [3]. My primary task under the Coroners Act 2003 is to make findings as to who the deceased person is, how, when, where, and what, caused them to die<sup>5</sup>.
- [4]. Accordingly the List of Issues for this Inquest are:-
1. The information required by section 45(2) of the *Coroners Act 2003*, namely when, where and how baby M died, and what caused her death,
  2. The extent to which each of the following conditions contributed (if at all) to baby M's death:-
    - (a) ) Group B streptococcus (GBS) infection (sepsis);
    - (b) meconium aspiration;
    - (c) ) birth trauma;
    - (d) head injury as a result of a fall.
  3. Whether any aspect of the prenatal care provided, or omitted to be provided, to Ms Briemann Keldie contributed in any way to baby M's death?
  4. Whether the equipment available in Gladstone hospital's birthing suite #4, for the birth of baby M, was adequate, operable, and appropriately located?

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<sup>1</sup> The naming of the deceased as simply 'Baby M' is to allow some level of privacy to the family. Technically she was a neonate being less than 28 days of age.

<sup>2</sup> Approximately five hours, passing away at 04.36 hours

<sup>3</sup> A small piece of plastic tubing, termed an adaptor, which allows the diameter of the disposable flexible air tube to seal properly at the machine. It was explained that the small adaptor can be inadvertently disposed of when the used air tube is disposed of as they are, understandably like much medical equipment, a single use item. Some may term the adaptor as a 'connector' on a resuscitation device used on a resuscitation table. Adaptor and connector are interchangeable terms for this item (incidentally manufactured by another company). Some exhibits referred to the resuscitation table as being a "Resuscitaire", but Dr Birch (exhibit A.9, at heading 4) clarifies that this is a brand name of a type of resuscitation table. The connector is hardly an elaborate or expensive item of medical equipment.

<sup>4</sup> I am merely broadly terming by categories a number of individual concerns.

<sup>5</sup> Coroners Act 2003 s. 45(2)(a) – (e) inclusive

5. Whether the care and treatment afforded to baby M immediately following her birth was consistent with best practice? and
6. Did staffing arrangements of the Gladstone hospital contribute, in any way, to the events which resulted in baby M's death?

[5]. The second task in any inquest is for the coroner to make comments on anything connected with the death investigated at an inquest that relate to public health or safety, the administration of justice, or ways to prevent deaths from happening in similar circumstances in the future<sup>6</sup>.

[6]. The third task is that if I reasonably suspect a person has committed an offence<sup>7</sup>, committed official misconduct<sup>8</sup>, or contravened a person's professional or trade, standard or obligation<sup>9</sup>, then I may refer that information to the appropriate disciplinary body for them to take any action they deem appropriate<sup>10</sup>.

### **Factual Background & Evidence**

[7]. This was the second pregnancy for Briemann Keldie. Her first child was born on 29 July 2005. That birth was by induction at nine days overdue. The baby was delivered naturally and without issue. The labour was about five hours in total from when induction commenced<sup>11</sup>.

[8]. Her second pregnancy, M, was first confirmed at about nineteen weeks gestation. There is no issue in this of itself except that it makes due date prediction much less accurate. The mother had pre-natal care at the Gold Coast which was all unremarkable<sup>12</sup>, and the pregnancy appeared to be progressing well, and without incident. M's parents then relocated to Gladstone and the medical records for the pregnancy were transferred to the Gladstone Hospital. The decision to transfer the records was made around 23 December 2015, and the mother first contacted the Gladstone Hospital on 4 January 2016. There is nothing in that short window of time that is of any particular relevance.

[9]. Whilst under the care of the midwives at the Gold Coast there was determined an estimated due date of about 27 January 2016. This estimate was considered more difficult due to the somewhat late, at nineteen weeks, confirmation of pregnancy.

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<sup>6</sup> *ibid* s.46(1)

<sup>7</sup> *Ibid* s.48(2)

<sup>8</sup> *Ibid* s.48(3)

<sup>9</sup> *Ibid* s.48(4)

<sup>10</sup> In these findings I address these three tasks in their usual order, section 45 Findings, section 46 Coroners Comments, and then section 48 Reporting Offences or Misconduct. I have used headings, for convenience only, for each of these in my findings.

<sup>11</sup> 11:30 PM until 4:29 AM, see paragraphs six and twelve of exhibit B.2

<sup>12</sup> Except for the estimated Due Date, and signs for presentation to hospital for delivery which I make comment upon.

- [10]. Whilst in Gladstone Ms Keldie consulted her new GP on 5 January 2016, with a referral for further follow-up at the Gladstone Hospital from about the thirty-six weeks pregnant time. The pre-natal health checks and assessments showed the mother and baby were progressing as usual with no particular event of real significance until at the forty weeks pregnant mark<sup>13</sup>.
- [11]. At forty weeks Ms Keldie attended the hospital for an appointment where she was seen by a midwife. The midwife enquired if she was to be induced and whether she wanted a 'stretch and sweep' of her membranes. Ms Keldie declined. She was booked in for a further appointment the following week, with a doctor.
- [12]. At her forty-one week appointment the doctor sought to do an internal examination but Ms Keldie declined as she thought there was no need for this. At that appointment she was booked in for a further appointment the following week and to be induced at 7.00 AM on 11 February 2016. She went into labour naturally the night before this anticipated appointment.
- [13]. At the forty-one weeks and six days appointment she had an internal examination which found that her cervix was two centimetres dilated and soft. At that time foetal heart monitoring was conducted for about an hour. The baby's heart rate was strong but significantly, in my view, it showed the mother was having one contraction about every 7.5 - 10 minutes<sup>14</sup>. Her scheduled induction was not due for another forty-four hours and it was a second pregnancy.
- [14]. The next day at about 3.00 PM Ms Keldie noticed slight cramping and back pain which increased to be stronger at 5:30 PM. She kept doing home tasks to keep herself busy, perhaps to stop her from focusing on the pain. Clearly she has a degree of stoicism and was calm in the circumstances. I am not critical of her, rather she was not overly nervous about what she thought were early labour signs.
- [15]. At 10:05 PM<sup>15</sup> she called the hospital and advised she was having contractions of three every fifteen minutes, was forty-two weeks pregnant with her second baby, and was due to be induced at 7.00 AM the following day. Her waters had not broken and she advised of other relevant signs that she had observed. She told them she lived about twenty minutes away by car. She said the maternity ward staff member told her to stay at home until her waters broke or

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<sup>13</sup> accordingly I will provide particular focus on the events and what occurred from forty weeks to M's death as there does not appear to be a great deal of issues (excepting the due date accuracy due to late pregnancy determination, and advice given as to when to present at hospital when labour is suspected) in the pregnancy or the midwifery practises up until that time. I am not discounting entirely what occurred up to forty weeks, rather it is just less remarkable as to the events which unfold in relation to the death.

<sup>14</sup> I am indebted to Mrs Foyle for interpreting the CTG printout in simple layman's terms. The CTG showed early, and consistent, signs of labour with regular contractions.

<sup>15</sup> Ms Keldie said 10.05PM based on her Optus telephone records, whilst the midwife thought 10.30PM. Ms Keldie is who I accept on this issue of when the telephone call occurred.

she could not handle the pain any further. Ten minutes later at 10:15 PM<sup>16</sup> she woke her husband and advised they were heading to hospital<sup>17</sup>. Fifteen minutes later they departed in their motor vehicle and arrived at the hospital car park at about 11.00 PM. At this time her contractions were very strong and close together. By 11:10 PM her waters had broken whilst in the hospital corridor as she was heading to the lift for the maternity ward. Whilst in the lift she felt the urge to push. She was in the maternity ward by 11:20 PM. Eleven minutes later, at 11.31 PM, M was born.

The critical events of the birth:

[16]. What was very evident was that the birthing process from her arrival at hospital to the time of delivery of the baby, was very rushed. There were only about eleven minutes from when she first arrived at the maternity ward to when M was born. This meant there was limited time whilst present in the birthing suite for the luxury of checking the equipment, which could happen if a more protracted labour progressed<sup>18</sup>.

[17]. When M was born she was first noticed to be 'pink' and took one small 'gasp'. She was then taken to the resuscitation table within the birthing suite where more formal post-natal observations commenced. It was noticed at this time that she was not breathing and her first Apgar assessment was very low. The nurse at the resuscitation table went to give her ventilation support but the particular brand of mask and hose available was incompatible with the resuscitation table unit as they were different brands and the adaptor required to make them compatible was missing. The nurse then wrapped and picked up M in a blanket and realising that time was essential (as about one minute had already passed) she commenced to walk swiftly, described as half walking/half running, to the next available resuscitation table which was in birthing suite 3. I was told in evidence this was about twenty metres away down a corridor. As the nurse exited birthing suite 4 the nurse slipped on some fluid<sup>19</sup> on the floor, and fell forward. The nurse fell to her knees but lost hold of the baby and the baby fell from the blanket onto the floor in the corridor<sup>20</sup>. This was a tragic and most unfortunate event, but entirely accidental.

[18]. Whilst M was being transferred to the next resuscitation table there was a period of about two-three minutes, being the variety of estimates that the baby was without supplied air for resuscitation. Whilst a range of two-three minutes was given from various witnesses I find that three minutes is most likely the duration based on the records kept by the scribe who recorded events in M's chart. The entries indicate a period of three minutes from birth until commencement of resuscitation table ventilation support.

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<sup>16</sup> About two or three minutes after her telephone call finished as its' duration was 7-8 minutes ascertained from her telephone records.

<sup>17</sup> Not an unusual scenario in my experience.

<sup>18</sup> Not that this is the correct approach, daily checking was scheduled as a nurse responsibility.

<sup>19</sup> Likely birthing bodily fluid, not a spilt drink nor floor wet from cleaning

<sup>20</sup> Being in the corridor it was not witnessed by the father or mother, although both realised the nurse had fallen and their baby dropped.

[19]. What was noticed in the early assessment of M was that she was in poor condition and so the on-call doctor was called. Dr Chipa was the most senior doctor to attend to M and he said that when he first observed the baby, just a few minutes after birth, that she appeared blue. What is likely is that due to the few minutes without air her initial pink appearance had changed to pale and then blue by the time Dr Chipa attended her. Her condition had deteriorated in those few minutes. Dr Chipa immediately commenced steps for resuscitation. The descending priority of these are Airways, Breathing, Circulation, Drugs<sup>21</sup>. Dr Chipa explained that the resuscitation of M was difficult because there was a lot of fluid in her lungs and as there was progress from clearing airways to breathing support that quite often they had to go back to clearing airways as further fluid became apparent. Dr Chipa also said that it was only when Airways, Breathing, and Circulation had been stabilised that consideration was made to administer Drugs<sup>22</sup>. I appreciate this, and accept that, and I am not critical of him in this regard. It was stated by a number of medical personnel that the resuscitation was protracted and difficult. The term used was ‘that there was chaos but it was not chaotic’. What they were trying to convey was that there were numerous difficulties being encountered in a difficult and tense situation<sup>23</sup>.

[20]. It is appropriate to comment on the issue of administration of antibiotics after she was born. There were concerns raised about whether the administration of antibiotics could have occurred as early as 12:20 PM. That certainly seems possible for at that time an IV cannula was first established. Dr Chipa was at pains to point out that at that time circulation had not been stabilised, and so the priority was to administer fluids to establish and stabilise the baby. There was a question raised as to whether antibiotics were then considered for a differential diagnosis of possible sepsis, and I note from the patient records that blood was drawn for cultures to be performed. That is clear evidence that consideration of a possible sepsis was then in the mind of the clinicians, so it could not be said that they ‘overlooked’ this possibility<sup>24</sup>. Rather, in my view and supported by the evidence of the treating doctors, they simply did not have the patient to the required level of stability to administer antibiotics whilst other resuscitative measures remained the priority.

[21]. One critical aspect to note is that there was written a prescription<sup>25</sup> to administer IV antibiotics at 1:25 AM, but there is no record it was ever administered. Each nurse stated that they never heard a verbal order being made for IV antibiotics. The doctor could not specifically recall stating out loud an order, but clearly the medication chart was written up for this to be administered. I find that no antibiotics were administered to baby M. Unfortunately no medical expert could state whether that would have altered

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<sup>21</sup> ‘A,B,C,D’ as I was reminded so often at the inquest.

<sup>22</sup> I use capitalisation to highlight the A, B, C, D approach

<sup>23</sup> I am also cognisant that this is a regional hospital, tertiary level 3, and not a major metropolitan hospital, a tertiary level 6, which would have more staff, better trained and drilled in precisely this occurrence, and have greater facilities or resources.

<sup>24</sup> An inference I reject

<sup>25</sup> A doctor writes the prescription, and a nurse administers the medication dose (in the usual run of things).

the outcome for baby M, and it was thought likely that in her poor condition when she was born (or very shortly after) that it was unlikely that antibiotics would have altered her outcome.

[22]. Complicating M's underlying sepsis condition was the fact that she was dropped to the floor. At autopsy there was found a fracture to the right side of her head, and another to the left, but in resolving the causation of these I am satisfied that the fracture to the right side of the head, which was a significant fracture, was caused in the fall to the floor<sup>26</sup>. The fracture, much more minor, to the left side of the head was due to birthing injury as she had a precipitous birth.

### **Medical Opinion**

[23]. The medical opinions as to appropriateness of prenatal care<sup>27</sup> and cause of death were in issue and required resolution.

#### Pre-natal care:

[24]. The inquest had the benefit of a review of the pre-natal care by an experienced obstetrician, Dr Etherington. His opinion<sup>28</sup> was that Ms Keldie was not a suitable candidate for low risk midwifery only care in view of:-

- a. her previous post-date small for gestational age (SGA) delivery;
- b. that the clinical concerns of the SGA baby in this pregnancy were not supported by ultrasound evaluation;
- c. the pregnancy went significantly post-date (as the optimum time to induce labour is between seven and ten days post-date as the risks to the foetus rises thereafter)<sup>29</sup>;
- d. she should not have been advised to stay at home when experiencing the presence of strong uterine contractions to await the rupture of her membranes;
- e. this was the second, or subsequent, pregnancy and a labour can progress very swiftly which can likely to lead to deliveries occurring in the absence of appropriate assistance;
- f. she should have been advised to attend the birthing suite without delay when she telephoned at 10:05 PM;
- g. as there was a record that she was GBS positive in the patients chart<sup>30</sup> that is another reason she should have been advised to attend the birthing suite when the call was made at 10:05 PM (so that appropriate antibiotics prophylaxis could be administered).

[25]. Put simply, in his professional opinion it was not a low risk pregnancy from the outset.

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<sup>26</sup> Dr Buxton helpfully also clarified this in his evidence.

<sup>27</sup> The prenatal care must be viewed with a consideration to avoid any hindsight bias

<sup>28</sup> Exhibit A.7

<sup>29</sup> Ms Keldie did not go into labour until 14 days after her due date

<sup>30</sup> Where this entry came from was unable to be resolved

- [26]. As to the fact that the prior day she was monitored as having contractions at one every 7.5 to 10 minutes, the advice to go home was in his professional opinion unwise without further investigation of her conditions and circumstances (he considered that with patients who live thirty or so minutes by car from the hospital it would have been his advice to remain at hospital.
- [27]. In view of this being a second pregnancy, with the first delivery being fairly quick, and this pregnancy being well overdue for term, it is most unfortunate that the opportunity to induce the labour at that the optimum time<sup>31</sup> of 7-10 days post-due date did not occur. Inducing occurs at a pre-determined time and in the setting of the hospital's birthing suite. Perhaps there needs to be greater emphasis on 'encouragement' for inducing a labour when the clinical history as occurred in this case is present.
- [28]. In addition Mrs Foyle said that in her extensive midwifery experience she would have investigated much further the mother's symptoms of labour when the CTG showed regular contractions on 9 February 2016. Likely a decision would have then been made to advise Ms Keldie not to go home.
- [29]. Accordingly the pre-natal care was not appropriate in all the circumstances and there were significant missed opportunities.

#### Medical Cause of death

##### Autopsy findings

- [30]. The forensic pathologist provided an Autopsy Report and clarified certain of his Findings in evidence at the inquest. In essence Dr Buxton, a very experienced forensic pathologist, found an overwhelming sepsis and two fracture injuries to the skull. The first fracture to the left side was minor<sup>32</sup>, and likely birth trauma, the second on the right was significant<sup>33</sup> and was likely<sup>34</sup> due to the fall and drop by the nurse. The nature of the sepsis was Group B Streptococcus, a very common strain, but significantly it was found extensively<sup>35</sup> in baby M (Dr Buxton took blood and spinal fluid samples for microbiology testing, a helpful and thorough approach). The fluid in the lungs was minimal, likely due to the resuscitation undertaken, although haemorrhaging was noted. Accordingly it appears that meconium aspiration was not a significant causal factor in death<sup>36</sup>.

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<sup>31</sup> And Dr Etherington said there is discussion amongst the obstetric profession that at 39 weeks may be more appropriate.

<sup>32</sup> Described as a little bleeding, not dramatic

<sup>33</sup> Described as a larger injury, more significant, caused blood running down the spinal canal.

<sup>34</sup> Dr Buxton described the injury as consistent with a fall from height. Importantly the two traumas were distinguishable as to their causation, extent of injury, and causal link to the baby's condition.

<sup>35</sup> Whether the presence in the spinal fluid sample is simply due to blood running to there from the skull injury or the invasiveness of the septic condition throughout the body I cannot determine.

<sup>36</sup> This is also supported by the fact that Dr Birch thought that the lung haemorrhaging was due to the underlying sepsis and head injury trauma from the fall (causing the flight or fright response within the baby).



### Identified shortcomings in the post-natal care and resuscitation:

[31]. The issues identified in the post-natal care by the reviewing paediatrician Dr Pita Birch was that there was a delay in the administration<sup>37</sup> of antibiotics after delivery occurred but that even if antibiotics had been given earlier (or even at all perhaps is most accurate) and if appropriate ventilation support was given to the neonate he would be very guarded as to the baby's survival because it is difficult to determine if survival would have occurred. Dr Birch was of the opinion that even in a tertiary level six hospital, with the best care, survival prospects were only about 20-40%, and understandably were far less in a regional tertiary level three hospital. What was clear to me from Dr Birch's evidence was that whilst the efforts at resuscitation could have been better they were acceptable in the nature of the clinical setting, staffing arrangements, and facilities available, at that time. As I stated the failure to administer antibiotics at the earliest available opportunity was the significant failing that he identified. In saying this I have placed to one side the obvious failing, described as an omission<sup>38</sup> by one witness, of the resuscitation table having non-operable ventilation support. Dr Birch was also of the opinion that GBS played the largest part in the pulmonary haemorrhage found at autopsy, which was a significant underlying condition to the baby's cause of death.

### List of Inquest Issues Answers

#### Coroners Act s. 45(2): 'Findings'

[32]. Dealing with the list of issues for this inquest the answers are as follows:-

[33]. Issue 1. My primary task is the information required by section 45(2) of the *Coroners Act 2003*, namely:

- a. Who the deceased person is – Baby M<sup>39</sup>,
- b. How the person died – being born with a high level of Group B Streptococcus infection and being dropped from a height, in a fall, shortly after birth,
- c. When the person died – 11 February 2016<sup>40</sup>,
- d. Where the person died – Gladstone Base Hospital, <sup>41</sup>, and
- e. what caused the person to die – This is outlined in paragraph [35] below.

[34]. Issue 2. The extent to which each of the following conditions contributed (if at all) to baby M's death:-

- (a) Group B streptococcus (GBS) infection (sepsis);
- (b) Meconium aspiration;
- (c) Birth trauma;

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<sup>37</sup> But of course none were administered

<sup>38</sup> Describing as an 'omission' is the 'plainest' terminology that could be used.

<sup>39</sup> See exhibit A1 QPS Form 1. It is necessary I state her name in full for the purposes of the Coroners Act requirements.

<sup>40</sup> See exhibit A2 Life Extinct Form

<sup>41</sup> See exhibit A2 Life Extinct Form

(d) Head injury as a result of a fall.

- [35]. This was a somewhat problematic area but after hearing the evidence I find that the Cause of Death (in the format recorded on a death certificate<sup>42</sup>) is:
- a. 1(a) Intracranial and intrapulmonary haemorrhage; due to
  - b. 1(b) Traumatic head injury as a result of a fall from height; due to
  - c. 1(c) Group B Streptococcus infection (Sepsis).
- [36]. Issue 3. Whether any aspect of the prenatal care provided, or omitted to be provided, to Ms Briann Keldie contributed in any way to baby M's death?
- [37]. The pre-natal care with the 'signs' or 'presentation' to warn to attend hospital appears to be deficient when Ms Keldie was first advised of this at the Gold Coast midwife group practice, but there was ample opportunity for this to be corrected during her presentations in Gladstone. There was also a missed opportunity to schedule the induction of her delivery earlier in the pregnancy, simply one to two weeks earlier. Perhaps if induced at this time the sepsis would either be non-existent, or at least far less 'developed' in the foetus, but as Dr Buxton opined it was difficult to precisely date when the GBS sepsis developed as it was possibly 2-3 days to 7 days old, but it was certainly very established in baby M when born.
- [38]. Lastly, and it was conceded by Mrs Foyle, that at the 9 February 2017 appointment when there was established regular contractions, Ms Keldie should have been more thoroughly examined, questioned, and monitored as to the strength of the contractions, and then given advice as to whether she should stay in the hospital or if she chose to leave that she should immediately return if certain events happened. If this had occurred perhaps she would have spent greater time in the birthing suite, resulting in a less rushed time in the birthing suite which would have increased the likelihood that the deficiency in the resuscitation table equipment would have been detected, and corrected, before the delivery occurred. In addition, to my mind, it was clear that the inducing of labour should have occurred at 41-42 weeks, no later, in accordance with the *Old Health Induction of Labour Guidelines*. This is especially so when her delayed confirmation of pregnancy occurred at 19 weeks.
- [39]. Issue 4. Whether the equipment available in Gladstone hospital's birthing suite #4, for the birth of baby M, was adequate, operable, and appropriately located?
- [40]. Clearly the medical equipment available in birth suite #4 was adequate per se, but the resuscitation table was inoperable as to its supplied air for respiratory support function (a critical element of its utility or function) due to a mismatched<sup>43</sup> hose and mask, and that mismatched hose lacking the appropriate

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<sup>42</sup> Death certificates use the format of ascribing No.1, primary cause of death, and No.2 significant underlying conditions not directly causing death. The Death Certificate issued shall be amended accordingly.

<sup>43</sup> A Fisher & Paykell brand tube and mask versus a GE brand resuscitation table.

connector to allow compatibility. The equipment's physical location in the suite was adequate although steps have been already taken to better facilitate its use.

- [41]. Issue 5. Whether the care and treatment afforded to baby M immediately following her birth was consistent with best practice?
- [42]. In view of the fact it was a level 3 tertiary hospital and the evidence as I accept I have no criticism of the resuscitative efforts made, although I note no antibiotics were administered. In view of the chronology of events it appears clear that even if administered (even if earlier than prescribed) it would not have altered baby M's outcome due to the significant head injury she suffered.
- [43]. The care given from birth to four minutes post birth was deficient as there was no ventilation support given, not even from the 'Ambu' bag present on each resuscitation table. I never received a convincing explanation<sup>44</sup> as to why it was not used. This was a glaring omission in best practice.
- [44]. From the evidence available there is no suggestion that aero-medical retrieval to Brisbane any earlier would have altered the baby's outcome<sup>45</sup>.
- [45]. Issue 6. Did staffing arrangements of the Gladstone hospital contribute, in any way, to the events which resulted in baby M's death?
- [46]. Whilst there was raised (about a week prior to the incident) a staffing issue relating to an insufficient number of staff<sup>46</sup> it was clear in evidence, without any real contest made to that evidence, that the staffing levels management determined were considered appropriate based on patient admissions. There was in fact one full time equivalent (fte) position extra rostered for overall duties across all shifts. I do note that at the time Ms Keldie was in labour, brief as it was, there was one midwife with her at all times and the second midwife came to care for the baby once delivered. There does not appear to be any great substance<sup>47</sup> to inadequate staffing arrangements at the time which contributed to the death rather, in my view, there was a lack of diligence<sup>48</sup> in nursing staff undertaking the routine daily tasks, including the checking of the equipment.

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<sup>44</sup> It 'not being as effective' is not convincing in my mind.

<sup>45</sup> The inherent delays in arrival of the aircraft, loading, and return to Brisbane mean that baby M would have died before arrival at a large tertiary hospital in Brisbane.

<sup>46</sup> The issue can be stated as insufficient staff numbers for the work duties such that overtime was required and breaks missed to complete routine duties. The solution suggested by the nurse logging the issue was to reduce by three the ward bed numbers from 14 to 11. With four birthing suites and the division on the Night Shift of one nurse between birth suites and ward beds it is not a significant reduction in overall terms.

<sup>47</sup> And the issue, quite rightly in my opinion, was not pressed by counsel for the nurses

<sup>48</sup> Stated at its most simplest the resuscitation tables were to be checked daily. Over the course of a month it appears this was only happening about 50% of the time. Daily checking of the resuscitation tables is the responsibility of the day shift but it was hoped that if not done, the next shift would do this duty.

### **Coroners Act s. 46: ‘Coroners Comments’ (Recommendations)**

[47]. A number of possible recommendations to prevent future deaths have already been identified by the hospital board review and pleasingly these have been implemented. Whilst the past cannot be changed lessons learned can be beneficial in preventing the repeat of these tragic circumstances. I commented at the inquest that I was pleased to see the proactive steps taken by the hospital identifying and implementing changes throughout their region<sup>49</sup>. It would be beneficial if wider education of the incident occurs so the situation does not occur elsewhere. One matter identified at inquest, which I hope has now been acted upon, is that the particular staff members involved, even if they have left employment, should receive, read, and understand, the omissions which occurred in the death of baby M so that they are not repeated.

[48]. There was some discussion directed as to whether Universal Screening or a Risk Based Approach to GBS occurs. That is a matter for specialist consideration by health authorities. As the presence of GBS is in about one third of all pregnant women (without causing issue), it presents as a risk to the baby in about 1 in 200 births. Perhaps the best way to approach the matter, as Queensland retains the Risk Based Approach, is to ensure expectant mothers are advised of the risks, and encouraged if they wish to have the test completed, so if they are positive and there is assessed a risk to the baby then appropriate steps can be taken to administer antibiotics at the earliest available opportunity.

[49]. There are a number of elementary recommendations to make, a number of which have already been adopted by the Hospital board, and these are:-

- a. That resuscitation tables never use an adapter, and that proprietary brand resuscitation masks only be used on that brand’s resuscitation table<sup>50</sup>;
- b. That a bassinet and trolley be available in each birthing suite, and the baby is only to be transported from a room by the use of a bassinet and trolley;
- c. That expectant mothers be informed about the incidence and issues relating to GBS, and encouraged to have screening conducted, if they choose.

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<sup>49</sup> Although I note there was delay in implementing some recommendations of the RCA, discovered by Mrs Foyle, and then implemented. Perhaps why ‘the ball was dropped’ should be clarified internally by the hospital so any future lack of implementation it is not repeated.

<sup>50</sup> I do not consider I have a suitable power to direct the two manufacturers to only use items with a generic compatibility, although the idea certainly has great practical merit. Perhaps that is an issue for Regulators if manufacturers do not exercise common sense.

**Coroners Act s. 48: 'Reporting Offences or Misconduct'**

[50]. The Coroners Act section 48 imposes an obligation to report offences or misconduct.

[51]. It was not suggested, nor recommended, to me by any party at the inquest that any person or entity should be referred for investigation of an indictable or other offence. Accordingly I make no such referrals under section 48.

**Magistrate O'Connell**

Central Coroner

Gladstone

21 September 2018