JURISDICTION	**:**	CORONER'S COURT OF WESTERN AUSTRALIA
ACT	**:**	CORONERS ACT 1996
CORONER	**:**	MICHAEL ANDREW GLIDDON JENKIN, CORONER
HEARD	**:**	16 NOVEMBER 2022
DELIVERED	**:**	8 DECEMBER 2022
FILE NO/S	**:**	CORC 2755 of 2020
DECEASED	**:**	Child B

Catchwords:

Nil

Legislation:

Nil

Counsel Appearing:

Ms S Markham appeared to assist the coroner.

Ms G Beck (State Solicitor's Office) appeared on behalf of the Department of Communities.

SUPPRESSION ORDER

Suppression of the deceased's name from publication and any evidence likely to lead to the child's identification. The deceased is to be referred to as "Child B".

RVC Fogliani, State Coroner (23.05.22)

Coroners Act 1996

(Section 26(1))

RECORD OF INVESTIGATION INTO DEATH

I, Michael Andrew Gliddon Jenkin, Coroner, having investigated the death of a male child referred to as ***Child B*** *with an inquest held at Perth Coroner's Court, Central Law Courts, Court 85, 501 Hay Street, Perth, on 16 November 2022, find that the death of* ***Child B*** *occurred on 8 December 2020 at Perth Children's Hospital, from hypoxic ischaemic encephalopathy complicating hypoglycaemia with shock and status epilepticus in a child with a recent febrile illness and a history of septo-optic dysplasia and panhypopituitarism, medically palliated in the following circumstances:*

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INTRODUCTION

1. Child B was three-years of age when he died from a hypoxic brain injury on 8 December 2020.[1,2,3,4,5,6] At that time, Child B was in the care of the Director General of the Department of Communities (the Department).[7] Child B was therefore a "*person held in care*" and his death was a "*reportable death*". In such circumstances, a coronial inquest is mandatory and where, as here, the death is of a person in care, I must comment on the quality of the supervision, treatment, and care the person received.[8]

2. I conducted an inquest into Child B's death on 16 November 2022, which was attended by members of his family. The inquest focussed on the supervision, treatment and care that Child B received while he was in care, as well as the circumstances of his death.

3. The documentary evidence tendered at the inquest consisted of one volume and included reports from the Department and investigating police officers. The following witnesses gave evidence at the inquest:

a. Mr Andrew Geddes (representing the Department);[9] and
b. Dr Catherine Choong (consultant endocrinologist).

4. On the basis that it would be contrary to the public interest, the State Coroner made an order on 23 May 2022, suppressing Child B's name and any evidence likely to identify Child B. The terms of that order are set out on the cover page of this finding.[10]

5. So as to protect Child B's identity, I have chosen to refer to his mother as "AB", his father as "CD" and his foster carer as Ms B in this finding. No disrespect is intended to any person.

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[1] Exhibit 1, Vol. 1, Tab 1, P100 - Report of Death (19.07.21)
[2] Exhibit 1, Vol. 1, Tab 2, P92, Identification of Deceased Person - Visual Means (08.11.20, presumably meant to be 08.12.20)
[3] Exhibit 1, Vol. 1, Tab 4, Death in Hospital Form (08.12.20)
[4] Exhibit 1, Vol. 1, Tab 4, Neurological Determination of Death (08.12.20)
[5] Exhibit 1, Vol. 1, Tab 5, Post Mortem Report (09.04.21)
[6] Exhibit 1, Vol. 1, Tab 6, Letter - Dr J White (17.12.20)
[7] Exhibit 1, Vol. 1, Tab 13A, Report - Mr A Geddes, Department of Communities (30.06.21)
[8] Sections 3, 22(1)(a) & 25(3), *Coroners Act 1996* (WA)
[9] Mr Geddes is the Department's Regional Executive Director, South Metropolitan Region
[10] Section 49(1), *Coroners Act 1996* (WA)

CHILD B

Overview[11,12,13]

6. Child B was born at 34-weeks gestation in Fiona Stanley Hospital (FSH) on 9 November 2017, and the day after his birth a social worker at FSH contacted the Department to express concerns for his welfare.

7. As noted, Child B was subsequently taken into the care of the Director General and was in that care at the time of his death. Child B had numerous serious congenital medical conditions. He also had seriously impaired vision and was essentially non-verbal, although he was able to say a few words. Despite his numerous health issues, Child B was described as a "*happy and bubbly child*".[14]

8. Neither of Child B's parents were able to provide Child B with the level of care his complex medical needs demanded, and Ms B stepped forward and became Child B's foster carer. In my view, Ms B's willingness to take on the care of a child with such serious medical conditions and her dedication to this task are worthy of high praise.

Medical history[15,16]

9. Child B's complex medical history included significant endocrine issues, cardiac defects, blindness, and developmental delay. His formal diagnoses included:

> Multiple pituitary hormone deficiency; septo-optic dysplasia; panhypopituitarism; partial Kallmann syndrome; polymicrogyria left insular cortex; basal ganglia dysplasia; heart defects (i.e.: patent ductus arteriosus (PDA), patent foramen ovale, and atrial septal defect); blindness (no light perception); and global developmental delay.

[11] Exhibit 1, Vol. 1, Tab 8, Report - Sen. Const. D Amaira (14.07.21), p2
[12] Exhibit 1, Vol. 1, Tab 12, Child Death Notification (14.12.20)
[13] Exhibit 1, Vol. 1, Tab 13A, Report - Mr A Geddes, Department of Communities (30.06.21)
[14] Exhibit 1, Vol. 1, Tab 15B, Statement - Ms B (17.08.22), paras 2-16
[15] Exhibit 1, Vol. 1, Tab 19, Report - Dr K Douglas (19.01.21), p1
[16] Exhibit 1, Vol. 1, Tab 22A, Proofing notes - Dr C Choong (16.11.22) and ts 16.11.22 (Choong), pp22-25

10. Child B's cardiac issues were well managed. Following a review on 1 March 2019, his cardiologist confirmed that Child B's PDA[17] had closed, and that his atrial septal defect was "*of no clinical significance*". Child B was noted to be alert and active, and to be "*thriving in* (Ms B's) *care*". The cardiologist stated that Child B's cardiac conditions did "*not warrant any restrictions to his activities*".[18]

11. On the other hand, Child B's endocrine issues had a significant impact on his health. At the inquest, Dr Catherine Choong (a consultant endocrinologist) explained that as a result of his congenital conditions, Child B had adrenocorticotrophic hormone (ACTH) deficiency which impaired his body's ability to release a hormone called cortisol.

12. Dr Choong explained that cortisol plays an important role in controlling the body's response to stress, as well as maintaining blood pressure, salt balance and the amount of sugar in the blood. Dr Choong said that to counteract Child B's low cortisol levels, he required medication in the form of synthetic cortisol (hydrocortisone) three times per day. She also explained that the medication is administered in a way that attempts to mimic the "*normal*" release of cortisol, with a larger dose of hydrocortisone given in the morning, and the other two doses given in the afternoon and evening.

13. Dr Choong noted it was important to give the patient just the right amount of hydrocortisone "*to maintain normal growth and metabolism*". Too much can result in weight gain and slowing of growth and height, whereas too little can cause low blood pressure as well as low energy levels and low blood sugar.

14. Dr Choong noted that at times of acute illness or injury a person with ACTH deficiency cannot respond to the resultant stress on the body, and may experience episodes of dangerously low blood pressure and low levels of blood sugar. In these circumstances, extra hydrocortisone is required and in an emergency situation where the patient cannot take the medication orally, an intramuscular injection is required.

[17] A PDA is a blood vessel that connects the aorta to the pulmonary artery which usually closes naturally soon after birth
[18] Exhibit 1, Vol. 1, Tab 18, Report - Dr M Yeoh and Dr D Kothari (01.03.19)

Emergency Management Plan[19,20,21]

15. Child B was the subject of emergency management plans in relation to his endocrine issues. The first of these plans was issued in January 2018 and stated that Child B had adrenal deficiency and that at times of illness or other stress to the body, he was at risk of "*adrenal crisis*".

16. At the time of his death, Child B was the subject of a plan issued on 22 April 2020 (the Plan), which provided that no extra hydrocortisone was required in the event of a "*mild illness*". However, if Child B experienced "*Significant injury / Stress or Severe Illness*", defined to include "*temperature >38°C, illness severe enough to miss school or normal activities*", he was to be given triple his normal total daily dose of hydrocortisone in four equal doses, plus fluids containing sugar (e.g.: juice/lemonade) and a simple/complex carbohydrate. If Child B was unable to tolerate fluids and/or food, he was to be taken to hospital.

17. If Child B experienced a single vomit within one hour of his usual dose of hydrocortisone, the Plan required the dose to be repeated. If he vomited again and/or experienced significant diarrhoea, he was to be given an intramuscular dose of hydrocortisone in accordance with a table in the Plan, and taken to hospital.

18. In an emergency situation, defined to include situations where Child B was "*shocked, clammy, drowsy or unconscious*", the Plan required him to be given an immediate intramuscular injection of hydrocortisone and for an ambulance to be called. At hospital, repeat intramuscular doses of hydrocortisone were to be given and the Plan noted: "*do NOT delay hydrocortisone because of difficult (intravenous) access*".

Training to administer emergency doses of hydrocortisone

19. Ms B was given training in how to administer an emergency dose of hydrocortisone intramuscularly on 8 January 2018. At that time, Child B was still in hospital following his birth.[22]

[19] Exhibit 1, Vol. 1, Tab 22A, Proofing notes - Dr C Choong (16.11.22) and ts 16.11.22 (Choong), pp25 and 38 & 42
[20] Exhibit 1, Vol. 1, Tab 22B, Emergency Management Plan (08.01.18)
[21] Exhibit 1, Vol. 1, Tab 22D, Emergency Management Plan (22.04.20)
[22] Exhibit 1, Vol. 1, Tab 22C, PMH Inpatient Progress Notes (08.01.18)

20. Ms B had never had to administer an emergency intramuscular dose of hydrocortisone, and she described her training as follows:

> I had only been trained once in how to [do] this in January 2018. The training didn't involve you drawing any fluid from a vial, but it did involve putting a needle into the leg of a doll. The following part of the procedure was then just explained by a nurse. The procedure to administer the hydrocortisone was to snap the end off the glass vial, insert the hypodermic needle in through the seal and draw out the dosage. Once I had done that I then needed to inject [Child B] in the top of his thigh. **Since the training in 2018, I did not receive any further follow up training in how to administer the hydrocortisone.**[23] [Emphasis added]

21. At the inquest, Dr Choong demonstrated how to administer an emergency dose of hydrocortisone. The medication is stored in a small glass bottle, known as an Act-O-Vial (see below), which has two chambers separated by a rubber bung. The lower chamber contains powdered medication, whilst the upper chamber contains a liquid used to "*solubilise*" the powdered medication.[24]

Photograph 1: Act-O-Vial[25]

22. To administer the dose, the caregiver removes the plastic tab at the top of the Act-O-Vial and presses firmly downwards to force the rubber bung to dislodge and drop into the lower chamber. The resultant solution is then "*drawn up*" using a hypodermic needle.[26]

[23] Exhibit 1, Vol. 1, Tab 15B, Statement - Ms B (17.08.22), paras 47-52
[24] ts 16.11.22 (Choong), pp30-38
[25] Image taken from SJA Clinical Practice Guideline - Hydrocortisone (2021)
[26] ts 16.11.22 (Choong), pp30-38

23. The needle is then pushed into muscle in the patient's outer upper buttock and the plunger of the syringe is pushed forward to deliver the dose. The dose administered depends on the age of the child and is set out in the patient's emergency plan.[27] As can be appreciated, the administration method has a number of steps and requires a steady hand. For a child experiencing an adrenal crisis, the importance of administering an emergency dose of hydrocortisone in a timely manner cannot be understated. I am therefore deeply troubled that Ms B only received training in how to perform this crucial task on one occasion.

24. By definition the administration of an emergency dose of medication will occur at a time of great stress. For that reason alone, it is my view that annual mandatory training in this critical skill is absolutely essential. By way of analogy, I note that the Australian Resuscitation Council recommends that cardio-pulmonary resuscitation competencies be refreshed annually.[28,29]

25. In circumstances where a child who may require emergency medication is in care, the responsibility for providing this refresher training clearly lies with the Director General. At the inquest Dr Choong and Mr Geddes both agreed that annual training in the correct administration of emergency doses of hydrocortisone was a good idea. Mr Geddes also observed that the Department's recently introduced "*health navigator*" program may be able to deliver the mandatory annual refresher training I suggested.[30]

26. The health navigator program, which is delivered jointly by the Department and the Department of Health, aims to improve the health outcomes of children in care, especially those with complex and challenging needs.[31] In my view, carers who may be required to administer emergency medication to children **must** receive mandatory annual refresher training in how to do so. That training should be documented, and preferably be delivered by means of realistic scenarios.

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[27] ts 16.11.22 (Choong), pp30-38
[28] Australian Resuscitation Council Guideline 10.1 - Basic Life Support Training (March 2013), p2
[29] See: www.resus.org.au/the-arc-guidelines/
[30] ts 16.11.22 (Geddes), pp19-21 and ts 16.11.22 (Choong), p39
[31] See: www.mediastatements.wa.gov.au/Pages/McGowan/2022/03/3-5-million-dollars-to-support-the-health-of-vulnerable-children-in-WA.aspx

THE DEPARTMENT'S MANAGEMENT OF CHILD B

Background[32]

27. Child B's parents AB and CD came to the attention of the Department in 1996 and 1992 respectively, and were each the victims of numerous family and domestic violence incidents. AB had a history of heavy methylamphetamine use, and she self-reported a diagnosis of schizophrenia and said she was non-compliant with medication. Both AB and CD had also been imprisoned.

28. Child B remained in hospital after his birth and AB visited him intermittently between 13 November 2017 and 28 December 2017, often for short periods late at night when she "*appeared substance affected*". During November 2017, the Department held safety assessment meetings to address concerns relating to Child B's ongoing care.

29. On 17 November 2017, the Department confirmed that if AB or CD tried to remove Child B from FSH, then the Department would exercise its powers under the *Children and Community Services Act 2004* (WA) (CCSA) to keep him there. CD was incarcerated at Hakea Prison on 26 November 2017, and throughout December 2017, the Department continued its assessment of Child B's needs. On 26 December 2017, Child B was transferred to Princess Margaret Hospital for Children (PMH) for further management.[33]

Child B is taken into care[34,35,36]

30. On 2 January 2018, the Department completed a Safety and Wellbeing Assessment (SWA) that substantiated its concerns about Child B's welfare, noting amongst other things, that both AB and CD had a history of polysubstance use. The Department successfully applied to the Children's Court of Western Australia (the Children's Court) for a warrant to apprehend Child B, who was taken into "*provisional protection and care*" on 2 January 2018, pursuant to the CCSA.

[32] Exhibit 1, Vol. 1, Tab 13A, Report - Mr A Geddes, Department of Communities (30.06.21), pp2-5
[33] Exhibit 1, Vol. 1, Tab 22C, PMH Discharge Summary (10.01.18)
[34] Exhibit 1, Vol. 1, Tab 12, Child Death Notification (14.12.20)
[35] Exhibit 1, Vol. 1, Tab 13A, Report - Mr A Geddes, Department of Communities (30.06.21), pp5-14
[36] ts 16.11.22 (Geddes), pp7-17

31. The basis for taking Child B into provisional care and protection was that there were reasonable grounds to suspect there was an immediate and substantial risk of harm to his wellbeing on the grounds of exposure to physical and emotional abuse and family and domestic violence.[37] On 11 January 2018, Child B was discharged from PMH into Ms B's care.

32. Ms B was a "*general foster carer*", whose suitability for this role had been assessed on 7 April 2014.[38] She had a background as a nursing assistant and had successfully fostered several children with special needs prior to caring for Child B. As part of Child B's discharge planning, Ms B attended PMH on several occasions, and she received training in the emergency administration of hydrocortisone on 8 January 2018.[39]

33. With AB's consent, the Children's Court granted the Department's application for a 12-month care and protection order in relation to Child B on 25 September 2018. The Children's Court subsequently made a care and protection order until age 18-years in relation to Child B on 11 November 2019.

34. Although Child B was in the care of the Director General, the possibility of reunification with his parents remained open. However, the prospects for reunification were adversely impacted by AB's continued use of methylamphetamine, her periodic refusal to subject to urinalysis, her exposure to incidents of domestic violence, and her patchy attendance at safety planning meetings.

35. During the time Child B was in care, CD visited him twice. AB visited on about 20 occasions,[40] although at various times her access was suspended due to her repeated failure to attend scheduled visits. Whilst AB and CD no doubt loved Child B, their complex backgrounds meant that neither had the ability to offer him the level of care that his complex needs clearly demanded.

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[37] s35(3), *Children and Community Services Act 2004* (WA)
[38] Exhibit 1, Vol. 1, Tab 13B, Fostering and Adoption Services Report (07.04.14)
[39] Exhibit 1, Vol. 1, Tab 22C, PMH Inpatient Progress Notes (08.01.18)
[40] Exhibit 1, Vol. 1, Tab 15B, Statement - Ms B (17.08.22), para 70

Management of medical issues[41,42,43]

36. As I have noted, Child B had numerous serious medical conditions and was a child with complex needs. Apart from being blind, he was essentially non-verbal. Child B was unable to eat solid foods and instead, he was fed a diet of formula and small amounts of puree. Child B needed a high level of care and required assistance with eating, washing, and walking.

37. Ms B was required to take Child B to at least 45 clinic appointments encompassing physiotherapy, cardiology, speech pathology, general and early intervention, infectious diseases, ophthalmology, rehabilitation medicine, occupational therapy, neurophysiology, paediatrics, dermatology, neurology, endocrinology, and dental health.

38. Quite apart from the logistics involved in attending these numerous medical and allied health appointments, Child B's day-to-day care must have been exhausting. The evidence establishes that Ms B was a dedicated and proactive carer, and her efforts in this regard are to be highly commended.

39. When Child B was reviewed by Dr Choong via a telehealth appointment on 22 April 2020, it was noted that he "*was progressing well in relation to weight gain*" but that his height was increasing more slowly. Growth hormone therapy to address Child B's small stature had been initiated on 6 February 2020, and this required Ms B to administer nightly injections. There is no suggestion that her management of these injections or Child B's oral medications, was anything other than exemplary.

Comments on medical care

40. On the basis of the available evidence, I am satisfied that Child B's medical needs were appropriately addressed whilst he was in the Director General's care. Ms B was proactive in seeking medical help, and as noted, Child B was "*thriving*" in her care.[44]

[41] Exhibit 1, Vol. 1, Tab 19, Report - Dr K Douglas (19.01.21)
[42] Exhibit 1, Vol. 1, Tab 13A, Report - Mr A Geddes, Department of Communities (30.06.21), pp18-30
[43] Exhibit 1, Vol. 1, Tab 21, Report - Dr C Choong (22.04.20) and ts 16.11.22 (Choong), pp22-31
[44] Exhibit 1, Vol. 1, Tab 18, Report - Dr M Yeoh and Dr D Kothari (01.03.19)

EVENTS LEADING TO CHILD B's DEATH[45,46]

41. At about 9.00 am on 29 November 2020, Ms B and her mother and sister took Child B to the opening of the Perth Museum. He was given a bottle of formula before they left home, and whilst they were waiting for the doors of the museum to open, Child B fell asleep in his pram. When he woke at about 12.30 pm, Ms B changed his nappy and gave him a bottle of formula. Child B stayed awake for about an hour before going back to sleep, and the family left the museum at about 3.45 pm.[47]

42. The family arrived home sometime after 4.30 pm and Child B had a bath at about 6.30 pm. After his bath, Ms B gave Child B "*a tiny bit of his puree*" and a bottle of formula. Child B felt "*a bit warm*" and when Ms B checked his temperature it was 37.3°C,[48] although as she noted in her statement:

> (Child B) always struggled to regulate his body temperature and it wasn't uncommon for him to be a little high. Due to this I was not concerned.[49]

43. Ms B says she placed Child B on his side in his cot at about 7.40 pm, and he subsequently fell asleep. Throughout the night Ms B didn't hear anything from Child B. However, when she woke at about 5.50 am on 30 November 2020, Ms B became concerned because she couldn't hear Child B "*bouncing up and down in his cot and calling out*" as he usually did. Ms B went to check on Child B and found him lying on his back, which was not one of his usual sleeping positions.[50]

44. Ms B tried to rouse Child B, but found he was unresponsive and not breathing. Although there were no signs of vomiting or diarrhoea in his cot, Ms B immediately suspected Child B may be in a hypoglycaemic coma as a result of an adrenal crisis. She called out to her son to ring an ambulance, and retrieved Child B's emergency dose of hydrocortisone.[51]

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[45] Exhibit 1, Vol. 1, Tab 8, Report - Sen. Const. D Amaira (14.07.21), pp2-3
[46] Exhibit 1, Vol. 1, Tab 13A, Report - Mr A Geddes, Department of Communities (30.06.21), pp27-30
[47] Exhibit 1, Vol. 1, Tab 15B, Statement - Ms B (17.08.22), paras 17-26
[48] Exhibit 1, Vol. 1, Tab 15B, Statement - Ms B (17.08.22), paras 26-30
[49] Exhibit 1, Vol. 1, Tab 15B, Statement - Ms B (17.08.22), para 31
[50] Exhibit 1, Vol. 1, Tab 15B, Statement - Ms B (17.08.22), paras 32-39
[51] Exhibit 1, Vol. 1, Tab 15B, Statement - Ms B (17.08.22), paras 40-45

45. Although Child B had experienced two adrenal crises in 2019, on both occasions his emergency dose of hydrocortisone had been administered by hospital staff.[52] Ms B described her frantic attempts to administer the emergency dose of hydrocortisone in these terms:

> I was struggling to break the vial and didn't even manage to do this, I do not know if this was because I was panicking but I couldn't break it.[53]

46. Ambulance officers arrived at 6.28 am and the St John Ambulance (SJA) patient care record states that Ms B told officers she had last seen Child B at 8.30 pm, when she put him to bed and at that time he had "*a low grade temperature*". Ms B also told officers she had woken at 6.20 am and found Child B unresponsive in his crib.[54,55]

47. I note the discrepancy between the information in the SJA patient care record (obtained by officers from Ms B on 30 November 2020) and Ms B's statement (signed on 8 August 2022) as to when Child B was put to bed then subsequently discovered. Although nothing turns on this discrepancy, it seems logical to assume that the information in the SJA patient care record is more accurate because it was obtained at a time closer to the actual events.

48. When asked, Ms B denied any illness in the house, or that Child B had been unwell or had experienced any recent trauma, falls or changes to his medication regime. Ms B told ambulance officers that Child B's previous episodes of adrenal crises had not been as severe, and she confirmed that a rash on Child B's arms was not usual.[56]

49. Ambulance officers noted Child B was "*hot++ to touch*" and recorded his vital signs as: temperature: 39.9°C (feverish), heart rate: 200 beats per minute (tachycardia), and blood pressure: 127/76 mm Hg (elevated). Child B's blood sugar level was also "*dangerously low*", and the officers gave him an intramuscular injection of glucagon, a hormone which raises blood sugar levels by stimulating the liver to release stored glucose.[57,58]

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[52] Exhibit 1, Vol. 1, Tab 15B, Statement - Ms B (17.08.22), para 46
[53] Exhibit 1, Vol. 1, Tab 15B, Statement - Ms B (17.08.22), para 53
[54] Exhibit 1, Vol. 1, Tab 20, SJA patient care record KWI21N2, (30.11.20), pp1-2
[55] Exhibit 1, Vol. 1, Tab 15B, Statement - Ms B (17.08.22), paras 54-56
[56] Exhibit 1, Vol. 1, Tab 20, SJA patient care record KWI21N2, (30.11.20), p2
[57] Exhibit 1, Vol. 1, Tab 15B, Statement - Ms B (17.08.22), para 56
[58] Exhibit 1, Vol. 1, Tab 20, SJA patient care record KWI21N2, (30.11.20), p2

50. Although it is clear from the SJA patient care record that Ms B had mentioned Child B previously experiencing adrenal crises, it appears that ambulance officers did not give him an emergency dose of hydrocortisone.[59] At my request, Counsel Assisting the coroner, Ms Sue Markham, contacted SJA to ask whether ambulances routinely carry doses of hydrocortisone.

51. SJA advised that a Clinical Practice Guideline dealing with adrenal crises was introduced in 2021. Since that time, hydrocortisone has been carried in vehicles used by Clinical Support Paramedics. As yet, hydrocortisone is not carried in "*standard*" ambulances for logistical and clinical reasons. However, SJA advised that this situation will be reviewed to determine whether any changes to the current practice are warranted.[60,61]

52. Child B was taken to Rockingham General Hospital by ambulance, and he arrived there at 6.52 am. He was treated with hydrocortisone and dextrose, and his blood sugar levels slowly improved. When he was noted to have "*eye deviation*", suggestive of seizure activity, he was given midazolam and later, an infusion of an anti-epileptic medication. After consultations with the endocrinology team and paediatric critical care team at Perth Children's Hospital (PCH), Child B was transferred there by ambulance with a medical escort.[62,63]

53. Child B arrived at PCH at about 9.30 am, and while in the emergency department he experienced further seizure activity and was intubated at about 1.00 pm. A CT scan of Child B's head showed evidence of brain damage caused by lack of oxygen (hypoxic ischaemic injury) and he was kept sedated with infusions of midazolam and morphine.[64] Child B's condition gradually deteriorated, and he was declared brain dead at 12.28 pm on 8 December 2020. Child B remained on life support until his family were able to say their goodbyes.[65,66,67]

[59] Exhibit 1, Vol. 1, Tab 20, SJA patient care record KWI21N2, (30.11.20), pp2-3
[60] Email - Ms S Markham (05.12.22)
[61] SJA Clinical Practice Guideline - Hydrocortisone (2021)
[62] Exhibit 1, Vol. 1, Tab 19, Report - Dr K Douglas (19.01.21), p2
[63] Exhibit 1, Vol. 1, Tab 20, SJA patient care record ROC41DD, (30.11.20)
[64] Exhibit 1, Vol. 1, Tab 19, Report - Dr K Douglas (19.01.21), pp2-5
[65] Exhibit 1, Vol. 1, Tab 4, Neurological Determination of Death (08.12.20)
[66] Exhibit 1, Vol. 1, Tab 15B, Statement - Ms B (17.08.22), paras 64-68 & 71

CAUSE AND MANNER OF DEATH

Post mortem examination[68,69,70,71,72]

54. A forensic pathologist (Dr Jodi White) conducted an external post mortem examination of Child B's body on 16 December 2020 and reviewed medical notes. Dr White found no evident injuries, other than those caused by medical intervention.

55. A full body CT scan was reviewed by a consultant paediatric radiologist (Dr F Bettenay), who noted underlying features of septo-optic dysplasia and signs consistent with the reported history of brain injury. Toxicological analysis detected medications in Child B's system that were consistent with his emergency medical care.

Cause and manner of death

56. At the conclusion of the external post mortem examination, Dr White expressed the opinion that the cause of Child B's death was:

> Hypoxic ischaemic encephalopathy complicating hypoglycaemia with shock and status epilepticus in a child with a recent febrile illness and a history of septo-optic dysplasia and panhypopituitarism, medically palliated.[73]

57. In layperson's terms, Dr White's opinion as to the cause of death refers to the fact that Child B had experienced a brain injury due to lack of oxygen, which complicated shock caused by low blood sugar, in the context of his known medical conditions.

58. I accept and adopt Dr White's opinion as to the cause of Child B's death and having considered all of the available evidence, I find his death occurred by way of natural causes.

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[67] Exhibit 1, Vol. 1, Tab 19, Report - Dr K Douglas (19.01.21), p5
[68] Exhibit 1, Vol. 1, Tab 5, Post Mortem Report (16.12.20)
[69] Exhibit 1, Vol. 1, Tab 5, Supplementary Post Mortem Report (09.04.21)
[70] Exhibit 1, Vol. 1, Tab 6, Letter - Dr J White (17.12.20)
[71] Exhibit 1, Vol. 1, Tab 7, ChemCentre toxicology report (04.01.21)
[72] Exhibit 1, Vol. 1, Tab 22A, Proofing notes - Dr C Choong (16.11.22), p7 and ts 16.11.22 (Choong), pp49-50
[73] Exhibit 1, Vol. 1, Tab 5, Supplementary Post Mortem Report (09.04.21)

COMMENTS ON SUPERVISION, TREATMENT AND CARE

Overview

59. The Department's decision to take Child B into provisional care and protection on 2 January 2018 was clearly appropriate, as were the subsequent proceedings to obtain a 12-month care and protection order and later still, a care and protection order until Child B turned 18-years.

60. Whilst he was in care, Child B attended a special needs playgroup and participated in swimming lessons. His medical needs were addressed, and he attended numerous appointments with medical and allied health practitioners. Having carefully reviewed the available evidence, I am satisfied that the care, supervision and treatment provided to Child B during the time he was in the Department's care, was of a very good standard.

Comments on Ms B's care of Child B

61. The documentary evidence makes it clear that Ms B is a caring and compassionate person, and her decision to become a foster carer should be applauded. In addition to caring for her own children, Ms B had cared for other foster children with special needs before taking on responsibility for looking after Child B, a child with serious medical conditions and complex needs.

62. The evidence establishes that Ms B made consistent efforts to provide Child B with a caring and stimulating environment, and that she attended to his numerous health and personal care needs with skill.

63. There is no evidence that Child B was experiencing an adrenal crisis when he was last seen on the evening of 29 November 2020. Although he had a "*low grade*" temperature, he ate some pureed food and had a bottle of formula. When Child B was discovered on the morning of 30 November 2020, there was no evidence of vomiting or diarrhoea, and he had apparently not cried out during the night. On the basis of the available evidence, the point at which Child B experienced an adrenal crisis and then hypoglycaemic shock, cannot be determined.

64. It is unfortunate Ms B was unable to give Child B an emergency dose of hydrocortisone when she discovered he was unconscious. However, the evidence of Dr Choong establishes that it is impossible to say that Child B's clincial journey would have been any different had he been given hydrocortisone when he was found unconscious.[74]

65. It would be natural for Ms B to be deeply affected by the death of Child B in such tragic circumstances. It would however be a mistake for her to attribute any blame to herself in relation to his death. At the inquest, Dr Choong confirmed the acccuracy of the following statements attributed to her in notes from her proofing session:

> **In this instance it is impossible to state that if (Ms B) had successfully administered the hydrocortisone injection, Child B's death may have been prevented because it is not possible to discern how long Child B had been in a hypoglycaemic state nor the cause for the adrenal crisis.** [Emphasis added]
>
> Furthermore the clinical deterioration in a person suffering an adrenal crisis can be unpredictable and rapid.
>
> When SJA arrived, they gave him glucagon to treat the low blood glucose level, but they did not give Child B hydrocortisone. We do not know what the primary event was that precipitated the adrenal crisis, nor the duration or severity of the episode of hypoglycaemia that Child B had suffered by the time he was found by his foster mother.
>
> **The rapidity of the decline of children with adrenal insufficiency is unpredictable. Therefore it is impossible to determine in this instance, whether the outcome would have changed if Child B had received an emergency hydrocortisone injection when his foster parent first found him.** [Emphasis added]
>
> Child B did not have all the hallmarks of a sick child during the previous evening. There was no vomiting or unusually high temperature. All Child B's foster mother knew was that he wasn't awake and not rousable when she found him.[75]

[74] Exhibit 1, Vol. 1, Tab 22A, Proofing notes - Dr C Choong (16.11.22), p7
[75] Exhibit 1, Vol. 1, Tab 22A, Proofing notes - Dr C Choong (16.11.22), p7 and ts 16.11.22 (Choong), pp49-50

RECOMMENDATION

66. In view of the observations I have made in this finding, I make the following recommendation:

> The Department of Communities (the Department) should examine the feasibility of providing mandatory annual training for carers who look after children with medical conditions that may require the administration of emergency medication. The Department should also consider how health navigators could assist in facilitating this crucial training.

Comments on recommendation

67. In accordance with my usual practice, a draft of my proposed recommendation was forwarded to counsel for the Department, Ms Gracie Beck on 16 November 2022. Feedback was requested by close of business on 28 November 2022.[76,77] On 2 December 2022 the Court received a letter from the Director General in these terms:

> Thank you for the opportunity to review your draft recommendations following the inquest regarding Child B. Please be advised that we will not be commenting on the draft recommendation at this time. We will continue to work with carers of children in the CEO's care to ensure that all placements, in particular placements of children with complex medical needs, are appropriately managed, and that carers have the support they need to provide the best possible care for the children for whom they have day to day responsibility.[78]

68. I note the broad and general nature of the Director General's commitment to support carers, especially those looking after children with complex medical needs. Nevertheless, I remain firmly of the view that the recommendation I have made arises directly from the evidence and relates to training which is of critical importance to the proper care of children with complex needs.

[76] Email from Ms K Christie, Judicial Support Officer to Ms G Beck, State Solicitor's Office (16.11.22)
[77] Email - Ms S Markham to St John Ambulance Western Australia Ltd (25.11.22)
[78] Letter from Mr M Rowe, Director General, Department of Communities (01.12.22)

CONCLUSION

69. Child B was a much-loved little boy who was born with serious medical conditions that had a significant impact on his health, and meant he had very complex needs. For various reasons, his parents were unable to adequately care for him and he was taken into the care of the Director General, a decision that was clearly correct.

70. Child B was placed with Ms B, a foster carer who provided him with a stable and loving home, and who was clearly dedicated to maximising his health, happiness and wellbeing.

71. Sometime between the evening of 29 November 2020, and the early hours of 30 November 2020, Child B experienced an adrenal crisis which resulted in a cascade of events that culminated in his death.

72. I have made one recommendation aimed at improving the administration of emergency medication to children in the Director General's care. It is my sincere hope that this recommendation will be accepted and promptly implemented. On behalf of the Court, I wish to again extend my very sincere condolences to AB, CD and Ms B for their terrible respective losses.

MAG Jenkin
Coroner
8 December 2022