IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

Court Reference: COR 2019 6537

FINDING INTO DEATH WITH INQUEST

Form 37 Rule 63(1)

Section 67 of the Coroners Act 2008

Deceased:	Dio Miranda Katiana Kemp
Delivered on:	25 September 2025
Delivered at:	Coroners Court of Victoria, 65 Kavanagh Street, Southbank
Hearing dates:	Directions Hearing: 21 August 2023 Inquest: 21-25 August, 24-25 October 2023 Final Submissions: November-December 2023
Findings of:	Deputy State Coroner Paresa Antoniadis Spanos
Counsel Assisting the Coroner:	Mr Daniel Wallis of Counsel, instructed by Ms Grace Horzitski, Senior Coroner's Solicitor, CCOV
Representation:	Ms Megan Fitzgerald of Counsel instructed by Maurice Blackburn Lawyers, appeared on behalf of Ms Miranda Jowett, the Senior Next of Kin Dr Sharon Keeling of Counsel, instructed by HWL Ebsworth Lawyers, appeared on behalf of Monash Health Mr Sean Cash of Counsel, instructed by Avant Law, appeared on behalf of Dr Leber

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INTRODUCTION

1. Dio Miranda Katiana Kemp was the three-year-old daughter of her mother Miranda Jowett (**Ms Jowett**) and her father Kepa Kemp and half-sister of Jayden.[1] At all material times, Dio was living with her mother and Jayden in Keysborough.

2. Dio died at Monash Medical Centre (**MMC**) on 29 November 2019 after a period of illness which commenced on about 19 November.[2] Dio was born with Down syndrome, also known as trisomy 21. Her medical history included an atrioventricular defect surgically repaired on 2 December 2016, shortly after her birth, and developmental delay. Dio was non-verbal but could communicate in a limited fashion with her mother and those close to her. Dio had been a patient of the Cheltenham Medical Centre from about January 2017 when she was about two months of age.

3. When asked to describe Dio as a child, what her personality was and was she was typically like, Ms Jowett said – *"She was very happy, loving, smiling, very joyous child. She never cried much, she wouldn't have tantrums, she was a really good sleeper and once recovering from her heart operation she was really well, she was really healthy, doing kinder, doing average, all things that they do at her age …"*.[3]

AN OVERVIEW OF DIO'S CLINICAL MANAGEMENT[4]

4. On 19 November, Ms Jowett noticed Dio was unwell with a slight temperature and diarrhoea but was otherwise well enough. As Dio was still unwell the following day, 20 November, with the same symptoms and was a little irritated, her mother gave her paracetamol and kept a close eye on her, intending to take her to the doctor if the symptoms persisted.

5. By 21 November, Ms Jowett noticed Dio had developed a pink-red rash on her forehead, spreading down to her eyelids. By the afternoon, the same kind of pink-red rash had developed on Dio's right cheek, prompting Ms Jowett to think that thought something was not right. Accordingly, Ms Jowett took Dio to the MMC Emergency Department (**ED**).

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[1] In deference to her family's wishes, the deceased will be referred to as Dio in this finding.
[2] Except where appropriate, the year will be omitted hereafter as all material events occurred in November 2019.
[3] Transcript page 18.
[4] This is a broad overview of the circumstances in which Dio's death occurred, intended to assist understanding of the finding. The timeline and broader circumstances will be discussed in more detail below by reference to the evidence. While I understand this overview to be largely uncontroversial, to the extent of any inconsistency, the latter is to be preferred.

6. There, at about 2200 hours on 21 November, Dio was reviewed first by registrar Dr Timothy Martin (**Dr Martin**), and then by consultant paediatric emergency physician Dr Tobias van Hest (**Dr van Hest**). Dr Martin's notes in the medical records made at about 0035 hours on 22 November included the following details. Dio presented with gastro and facial rash; had been unwell for three days with subjective fevers and multiple loose stools but no vomiting; was grumpy and clingy but otherwise okay in herself. That day, a rash that prompted Dio's presentation to the ED, started developing over her eyelids and spread over the day to her forehead and right cheek.

7. According to Dr Martin's notes, on physical examination, Dio had a temperature of 37.8°C and was described as febrile to 40°C at triage. Dio was alert and vigorous and *"difficult ++"* to examine due to compliance during the examination given she was non-verbal. When reviewed by Drs Martin and van Hest, Dio had improved with analgesia, and the clinical impression was of viral urticaria.[5]

8. Ms Jowett was given the option of Dio staying in the short-stay unit overnight or being discharged with an appointment at the MMC Rapid Review Clinic (**RRC**) in the morning. Ms Jowett chose the RRC and was given an appointment for 1040 hours later that morning. Dr Martin wrote a consultation and medical referral noting a background of three days of gastro/febrile illness and diarrhoea and queried whether Dio had a viral urticarial rash.

9. Dio was seen by consultant paediatrician Dr Christopher Pappas (**Dr Pappas**) at 1106 hours on 22 November in the RRC. He noted the reason for the referral in the medical records as *"query urticarial rash on a background of three days of gastro (febrile illness and diarrhoea)"*.

10. On examination, Dr Pappas found Dio well hydrated, active but miserable, with a temperature of 40°C, her chest was clear and there was a rash he identified as urticaria. In the medical records, Dr Pappas documented a facial urticaria, not an infective rash, and noted his advice to Ms Jowett as being to continue with fluids and paracetamol/Nurofen as needed with another RRC review the following day 23 November.

11. At about 2251 hours on 22 November, Ms Jowett re-presented to the ED with Dio and was seen by registrar Dr Pioma Wijeyesakere (**Dr Wijeyesakere**) in the early hours of

[5] Urticaria, also known as hives, is a type of red, raised, itchy skin rash caused when the body releases histamine from the skin cells. Histamines help fight illness and infection. Urticaria can happen for difference reasons, including illness or infection, allergic reactions and skin irritations (due to chemicals, medicine, stress or heat). Urticaria is common in children; may appear and disappear over several hours; and can move around the body.

23 November. Dr Wijeyesakere noted this was a re-presentation with viral urticaria, fever and gastro and that it was the worsening rash and swollen right eye that Ms Jowett was now anxious about.

12. On examination, Dio had a temperature of 40.5°C tympanic;[6] a heart rate of 131 taken peripherally; a respiratory rate of 26; and oxygen saturations of 99 per cent. Dr Wijeyesakere noted that Dio looked irritable with a pronounced urticarial rash over the face and marked conjunctivitis of the right eye. She recorded her medications as paracetamol, ibuprofen and loratadine.[7] Dio was discharged home noting she was already scheduled for the RRC later that day, 23 November.

13. At about 1015 hours on 23 November, Ms Jowett and Dio presented to consultant paediatrician Dr Sarah Arachchi (**Dr Arachchi**) at the RRC. Dr Arachchi noted the reason for the referral to be *"query urticarial rash"* on a background of three to four days of gastro (febrile with diarrhoea). The history included *"initially urticarial on eyes then over her cheeks, loose stools currently. Dio drinking well with reduced appetite but still having fevers up to 40 degrees."* Dr Arachchi noted that the total number of days of fever was four to five in total.[8]

14. On examination, Dio was alert and interactive with a temperature of 38.7°C; with no work of breathing; facial urticarial rash noted to be blanching with no rash elsewhere on her body; her chest was clear with dual heart sounds; and her abdomen was soft and non-tender. The diagnosis noted was *"likely viral infection and urticaria second to virus"*. Dr Arachchi recommended continuation of loratadine, paracetamol as required, review by a general practitioner in two days and a return to the ED if there were any concerns or deterioration.

15. Ms Jowett took Dio to see Dr Danny Henry Leber (**Dr Leber**) at the Cheltenham Medical Centre (**CMC**) on 26 November. Dr Leber noted in the clinic's medical records that Dio had a history of reviews in the MMC ED and the RRC; that she has had a fever, facial rash and diarrhoea; and described her as still unwell with a marked rash on her face that was starting to improve. He noted that the rash had been diagnosed as urticaria in the ED and described the reason for the visit as fever and viral illness.

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[6] Tympanic temperature is a measurement of core body temperature taken from the tympanic membrane (eardrum) using an ear thermometer. It is a non-invasive and rapid method that provides a quick reading of core temperature because the tympanic membrane shares an arterial blood supply with the hypothalamus, the body's thermostat.

[7] Loratadine is an over-the-counter antihistamine available in Australia as Claratin/Claratyne among other names.

[8] The significance of this will be discussed below in relation to the Royal Children's Hospital guideline regarding Fever in Children – also referred to as the "Febrile Child" guideline.

16. On examination, Dr Leber noted a fever of 40.6°C tympanic and facial redness. His management plan comprised fluids and regular paracetamol (QID/four times a day) plus/minus Nurofen. He noted that he gave Ms Jowett copies of the Royal Children's Hospital (**RCH**) fact sheets for parents on the subjects of fever, paracetamol, ibuprofen (Nurofen), and gastro. Dr Leber called MMC to obtain a PCR result which noted that rhinovirus/enterovirus was detected in Dio's samples. Dr Leber advised Ms Jowett to present to the ED or return to the CMC if the fever was not better the next day (27 November).[9]

17. On 28 November, Ms Jowett took Jayden to a scheduled appointment with consultant paediatrician Dr Margarete Tilders (**Dr Tilders**)[10] at the Central Bayside Community Health Services (**CBCHS**) and Dio accompanied them. Dio was not a patient of Dr Tilders, nor does the CBCHS have any facilities for acute medical care or emergencies.[11]

18. According to Dr Tilders, Dio was flushed and irritable with a significant erythematous rash on her lower arms and hands. Ms Jowett mentioned that Dio had been reviewed several times during the last week/ten days at MMC and by her GP, and was being treated. The fact that Dio had trisomy 21 and was not significantly improving according to her mother, raised concerns in Dr Tilders who emphasised that Dio should be urgently reassessed at MMC and/or by the GP.[12]

19. Later that day, 28 November, Ms Jowett took Dio to see Dr Leber again. He noted Dio still had a fever, mild swelling of the hand and diarrhoea once/twice a day with no vomiting. He further noted that Dio was being given Phenergan (promethazine)[13] to help her sleep, but it was not helping.

20. On examination, Dr Leber recorded Dio's temperature at 38.2°C, two-three hours after paracetamol, described her as alert, with a facial rash that was better than two days ago and

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[9] CMC medical records at page 68 of the inquest brief.

[10] Dr Tilders' statement dated 20 October 2020 is at pages 69-70 of the inquest brief. Dr Tilders described herself as a consultant paediatrician based at CBCHS since 2000 and predominantly practising in Behavioural and Developmental Paediatrics.

[11] As Dio was not a patient of Dr Tilders, or more broadly of the CBCHS, the statement was based solely on her independent recollection of the consultation as it related to Dio.

[12] Page 70 of the inquest brief. According to Dr Tilders' statement, after Jayden's consultation, she *"insisted and confirmed that Miranda had arranged an immediate consultation with her general practitioner, whose practice was in close proximity to Central Bayside Community Health Services."*

[13] Promethazine, sold under the brand name Phenergan among others, is a first-generation antihistamine, sedative and antiemetic used to treat allergies, insomnia and nausea.

with mild swelling of the left thenar eminence[14] that did not look like bacterial cellulitis. In his notes, Dr Leber described the reason for the visit as fever, probably viral with management being to continue paracetamol and fluids/water and to reduce milk in view of the diarrhoea. As regards further review, Dr Leber did not stipulate a review interval but noted *"Review if not better. ?? to MMC ED if getting worse."*[15]

21. In a document entitled Medical Timeline provided to the court, Ms Jowett described Dio waking at 0200 hours on 29 November and being extremely irritable and crying. Ms Jowett remained hypervigilant and did not sleep so she could check on Dio at regular intervals. Subsequently, when she heard Dio's breathing become rapid, she turned on the light to see her lips were blue and her forearms and hands were totally rock-hard swollen. Ms Jowett was panicked and called 000.

22. Ambulance Victoria (**AV**) document an ambulance response to the scene at 0334 hours. According to AV Patient Care VACIS records, attending paramedics noted that Dio was supine on the bed and her skin was mottled, she was febrile and tachypnoeic.[16] AV paramedics transported Dio to the MMC ED and noted her to be close to cardiac arrest upon arrival at 0358 hours.

23. Upon arrival, a Code Blue emergency was called and cardiopulmonary resuscitation (**CPR**) commenced. After all reversible causes had been addressed by MMC ED clinical staff and further resuscitation was deemed futile, Dr van Hest directed that resuscitation be ceased, and Dio was verified deceased at about 0517 hours on 29 November.

INVESTIGATION AND SOURCES OF EVIDENCE

24. This finding is based on the totality of the material the product of the coronial investigation of and inquest into Dio's death which includes relevant witness statements, photographs, the forensic pathologist's report and medical records.[17] This finding is also based on the evidence of those witnesses who were required to testify at inquest and any documents tendered through them and the final submissions of Counsel for each of the parties.

[14] The thenar eminence is the mound formed at the base of the thumb on the palm of the hand by the intrinsic group of muscles of the thumb.
[15] CMC medical records at page 67 of the inquest brief.
[16] Tachypnoea/tachnypnea, a faster than normal breathing rate. Tachypnoeic/tachypneic is the adjective.
[17] The compilation of material sometimes referred to as an inquest brief (designated Exhibit A at inquest) will be referred to as the "brief" in the rest of this finding.

25. All this material, together with the inquest transcript, will remain on the coronial file.[18] In writing this finding, I do not purport to summarise all the material and evidence but will only refer to it in such detail as is warranted by its forensic significance and the interests of narrative clarity.

PURPOSE OF A CORONIAL INVESTIGATION

26. The purpose of a coronial investigation of a reportable death[19] is to ascertain, if possible, the identity of the deceased person, the cause of death and the circumstances in which death occurred.[20]

27. Dio's death clearly falls within the definition of reportable death in section 4 of the **Coroners Act 2009** (**the Act**), satisfying both the jurisdictional nexus with the State of Victoria required by section 4(1) of the Act, and section 4(2) which includes (relevantly) – Section 4(2)(a) a death that appears to have been unexpected, unnatural or violent or to have resulted, directly or indirectly, from an accident or injury; [emphasis added]

28. The medical cause of death, incorporates where possible the mode or mechanism of death. For coronial purposes, the circumstances in which death occurred refers to the context or background and surrounding circumstances but is confined to those circumstances sufficiently proximate and causally relevant to the death, and not all those circumstances which might form part of a narrative culminating in death.[21]

29. The broader purpose of any coronial investigations is to contribute to the reduction of the number of preventable deaths through the findings of the investigation and the making of recommendations by coroners, generally referred to as the prevention role.[22]

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[18] From the commencement of the ***Coroners Act 2008*** (the Act), that is 1 November 2009, access to documents held by the Coroners Court of Victoria is governed by section 115 of the Act. Unless otherwise stipulated, all references to legislation that follow are to provisions of the Act.

[19] The term is exhaustively defined in section 4 of the ***Coroners Act 2008*** [the Act]. Apart from a jurisdictional nexus with the State of Victoria a reportable death includes deaths that appear to have been unexpected, unnatural or violent or to have resulted, directly or indirectly, from an accident or injury. Some deaths fall within the definition irrespective of the section 4(2)(a) characterisation of the 'type of death' and turn solely on the status of the deceased immediately before they died – section 4(2)(c) to (f) inclusive.

[20] Section 67(1).

[21] This is the effect of the authorities – see for example *Harmsworth v The State Coroner* [1989] VR 989; *Clancy* v *West* (Unreported 17/08/1994, Supreme Court of Victoria, Harper J.). Note that coroners are not empowered to determine the civil or criminal liability arising from the investigation of a reportable death and are specifically prohibited from including in a finding or comment any statement that a person is, or may be, guilty of an offence. However, a coroner may include a statement relating to a notification to the Director of Public Prosecutions if they believe an indictable offence may have been committed in connection with the death. See sections 69 (2) and 49(1) of the Act.

[22] The 'prevention' role is now explicitly articulated in the Preamble and purposes of the Act, compared with the *Coroners Act 1985* where this role was generally accepted as 'implicit'.

30. Coroners are empowered to report to the Attorney-General in relation to a death; to comment on any matter connected with the death they have investigated, including matters of public health or safety and the administration of justice; and to make recommendations to any Minister or public statutory authority on any matter connected with the death, including public health or safety or the administration of justice.[23] These are effectively the vehicles by which the coroner's prevention role can be advanced.[24]

IDENTITY

31. Dio Kemp, born 20 June 2016, aged three years, was identified by her grandfather Malcolm Harvey Kemp who signed a formal Statement of Identification to this effect before Dr van Hest on 29 November 2019. I note that in my formal finding of identity under "Findings" below includes her other given names.

32. Identity was not in issue and required no further investigation.

CAUSE OF DEATH

33. Dio's body was brought to the Coronial Services Centre in Southbank (**CSC**). Dr Linda Elizabeth Iles (**Dr Iles**), Head of Pathology, Victorian Institute of Forensic Medicine (**VIFM**) reviewed the Police Report of Death to the Coroner (VP Form 83), the Medical Deposition from MMC, medical records, an email from Ms Jowett and postmortem CT scan of the whole body undertaken at VIFM (**PMCT**), before performing a full postmortem examination or autopsy on Dio's body.

34. Having done so, Dr Iles provided a thirteen-page written report of her findings and opinion about the cause of death[25] in which she summarised her autopsy findings, relevantly, as –

    - Focal cerebritis with early microabscesses within the cerebrum, cerebellum and medulla oblongata on a background of abundant coccoid organisms within small calibre intracerebral vessels,

    - Colonies of cocci within small vessels systemically,

[23] See sections 72(1), 67(3) and 72(2) regarding reports, comments and recommendations respectively.
[24] See also sections 73(1) and 72(5) which requires publication of coronial findings, comments and recommendations and responses respectively; section 72(3) and (4) which oblige the recipient of a coronial recommendation to respond within three months, specifying a statement of action which has or will be taken in relation to the recommendation.
[25] Dr Iles' Autopsy Report dated 20 March 2020 is at pages 2-14, and ancillary investigations at pages 15-48 of the inquest brief.

- Focal microscopic poorly developed microabscesses in renal interstitium and myocardium; and,

- Occasional foci of spotty hepatocyte necrosis in the liver.[26]

35. In her report, Dr Iles provided commentary about matters germane to the coronial investigation and inquest. She advised that the postmortem examintion demonstrated features of septicaemia with abundant coccoid organisms present within small vessels thought the body. While this partially resulted from postmortem bacterial proliferation, the *"presence of such widespread, uniform organisms is in keeping with septicaema"* and was associated with focal microabscesses in the brain, heart and kidneys, as well as some focal hepatocyte necrosis in the liver.[27]

36. Furthermore, microbiological studies demonstrated Streptococcus pyogenes in blood cultures. Left and right lung swabs, bilateral middle ear swabs, liver and spleen swabs. According to Dr Iles, the *"presence of a single organism cultured at multiple sites is indicative of a significant systemic bacteraemia"*.[28]

37. Dr Iles also commented on the absence of evidence of a raised inflammatory marker. Postmortem vitreous procalcitonin levels were not raised and the remaining specimen was unsuitable for C-reactive protein analysis.[29] Despite the absence of a raised inflammatory marker, Dr Iles' opinion was that Dio's clinical history and the postmortem findings clearly indicate that Streptococus pyogenes was the cause of Dio's death.[30]

38. Dr Iles attributed Dio's death to 1(a) Streptococcus pyogenes septicaemia, which she described as a death due to natural causes.

39. I accept Dr Iles opinion, and the cause of Dio's death as formulated.

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[26] The summary *Evidence of previous atrial septal defect and ventricular septal defect repair.* In comment 5 of the autopsy report at page 4 of the inquest brief, Dr Iles stated that there was no evidence of complication related to Dio's previous cardiac surgery so this can be disregarded as a causal factor.

[27] Comment 2 at page 4 of the inquest brief.

[28] Comment 3 at page 4 of the inquest brief. These results are documented at page 13 of the inquest brief. At the time she performed the autopsy, Dr Iles was aware of an email from Ms Jowett – see page 3 of the inquest brief – and her comment includes the following *"The rash described by Dio's mother is in keeping with a rash observed in Streptococcus pyogenes septicaemia."* The nature of Dio's rash was discussed by several witnesses and the expert panel and will be discussed in more details below.

[29] Procalcitonin (PCT) and C-reactive protein (CRP) are both acute phase inflammatory markers used to detect inflammation and infection. PCT is more specific for bacterial infections, rising earlier and falling faster than CRP. See page 13 of the inquest brief where Dr Iles note the following results: Serum procalcitonin: <0.06ug/L and Serum CRP: Specimen unsuitable for analysis.

[30] Comment 4 at page 4 of the inquest brief.

40. Prior to inquest, I asked Dr Iles for a Supplementary Report to provide context for the appraisal of Dio's medical care. I asked for her opinion, based on autopsy findings, of the likely length of time over which Dio had the bacterial infection (prior to her death).[31] In a Supplementary Report, Dr Iles advised that *'there are no features of chronicity (i.e. subacute or chronic inflammation, or organising necrosis). This isn't particularly helpful as this type of prolonged course is not typical for the natural history of Strep Pyogenes sepsis…There is no evidence base…to correlate the extent of histological findings…with the time course of Dio's infection, or when it might have been first clinically diagnosable…Enterovirus was detected in the post mortem nasopharyngeal aspirate…Whether or not this may have been responsible for Dio's early symptoms is a question for clinicians reviewing Dio's presentation."*[32]

FOCUS OF THE CORONIAL INVESTIGATION & INQUEST

41. The focus of the coronial investigation and inquest into Dio's death was on the circumstances in which the death occurred, specifically, the adequacy of the clinical management and care provided to her during her several presentations to Monash Health and the family general practitioner Dr Danny Leber.

42. While the cause of Dio's death was uncontentious, certainly by the time of the inquest, the nature of her illness and whether it was viral or bacterial at the various presentations was also an important and inextricably linked consideration.

43. For convenience, the evidence relevant to each of Dio's presentations will be set out in episodic fashion below, followed by the evidence from the two expert panels – one involving specialists across paediatrics, emergency medicine and infectious diseases expressing their opinion mainly in connection with Dio's presentations to MMC ED and RRC, the other a panel of general practitioners providing peer review of Dr Leber's management.

[31] Page 14B of the inquest brief.

[32] Page 14A of the inquest brief. See too a further report via email that was Exhibit H regarding Dr Clark's comments about the finding of cerebritis found at autopsy. Dr Iles was not prepared to add any further comment in terms of what this finding might mean as to the "age" of the infection.

Presentation to Monash Medical Centre Emergency Department on <u>21/22 November 2019</u>

44. In addition to her statements and other documents included in the inquest brief, Ms Jowett gave evidence at the inquest. Among other things, she testified about Dio's condition and her motivation for taking her to the MMC ED on 21 November.[33]

45. Ms Jowett noticed Dio was unwell around the time of her audiology appointment on 19 July. She described her as irritable but not unwell that day and recalled that Dio did well at her regular audiology review. Two days later when she presented to the ED for the first time, Dio was crying non-stop in her pram, very irritable and very hot. The crying was unusual for her and an indication that she wasn't herself.[34]

46. At that time, Ms Jowett described Dio as crying, irritable, a little bit off her food but still eating. She had diarrhoea but was not vomiting. In terms of the reasons for going to the ED, Ms Jowett was particularly concerned about Dio's rash which was *"awful, very red, very hot to touch, very irritable and it only got worse from there."* Ms Jowett wondered if Dio was having an allergic reaction.[35]

47. In November 2019, Dr Martin was a Paediatric Registrar working at Monash Health who reviewed Dio in the ED on 21 November. Dr Martin provided a statement and gave evidence at inquest.[36] By reference to the triage notes, Dr Martin noted Dio presented with a rash on her face which developed that morning; she had loose bowel actions and a fever of 40.1℃ on a background of being unwell with a subjective fever for three days. She had a normal intake of diet and fluids.[37]

48. When he examined Dio and spoke to Ms Jowett around midnight, he felt she did not appear significantly unwell, was not lethargic or extremely irritable and had periods where she was more like her normal self and active. He considered, but found nothing in the history to suggest, an allergic reaction in Dio and described her rash as "a confluent blanching and erythematous rash over her face which was slightly swollen". Dr Martin concluded that Dio had a likely viral illness causing diarrhoea and urticaria most likely caused by her underlying febrile illness.[38]

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[33] Transcript pages 14-110.
[34] Transcript pages 20-21.
[35] Transcript pages 21-23.
[36] Dr Martin's statement dated 15 February 2021 is at pages 88-90 of the inquest brief and his evidence at transcript pages 123-145, 153-206.
[37] Page 88 of the inquest brief.
[38] Page 89 of the inquest brief.

49. At inquest, Dr Martin confirmed that in arriving at his clinical impression or diagnosis, he had taken into account that Dio had trisomy 21/Down syndrome, and a degree of mild immunodeficiency associated with the condition. Although not an expert in the physiology of trisomy 21, he believed that the mild immunodeficiency applied particularly to viral illness which he agreed dictated a lower threshold for investigating Dio for any infective illness.[39]

50. Dr Martin was questioned at length about the nature of the rash he observed on Dio and maintained it was erythematous and blanching, that is a red rash that blanches or becomes paler when pressed which he believed was a viral urticarial rash. According to Dr Martin, urticaria or an urticarial rash may be caused by an allergic reaction, a virus or a bacterial infection. It is a reaction in the skin to something occurring elsewhere in the body, for example a respiratory tract infection may lead to a rash that is a reaction in the skin to the presence of infective organism. To be distinguished from a bacterial infection of the skin such as cellulitis or erysipelas which is a bacterial skin infection that can be treated with antibiotics and/or may lead to sepsis.[40]

51. As it was the family's case that Dio had (or may have had) a bacterial infection, Dr Martin was challenged about his diagnosis of urticaria or a viral urticarial rash and why he did not consider Dio's rash was bacterial and/or erysipelas.

52. Dr Martin testified that, while both types of rashes are erythematous (involving redness of the skin), urticaria is usually superficial and blanching, whereas erysipelas is non-blanching and associated with a bacterial infection. Urticaria, often described as wheals or hives, is itchy and much more common than erysipelas which he described as tender and painful to touch or pressure. Another distinguishing characteristic is its texture, erysipelas being variously described as indurated, puckered or akin to orange peel in evidence. According to Dr Martin, when erysipelas does occur, it typically appears on the legs (he suggested this was 80% of cases) and less commonly on the face (perhaps 20% of cases) where it tends to present in the butterfly distribution with sparing of the forehead. In terms of the spread of the rash, he testified that urticaria can have a broad distribution over the body or may be isolated to one part of the body and may migrate to other areas, whereas erysipelas tends to spread confluently from its origin.[41]

[39] Transcript pages 124-125, 154-157.
[40] Transcript pages 128-130.
[41] Transcript pages 130-138, 174-176, 193-195.

53. Dr Martin testified that it was not a matter of simply examining the rash in isolation, out of context. When reviewing a child presenting to the ED with fever, a key consideration was always whether they had a serious bacterial infection or a viral illness. While the vast majority of children presenting with a febrile illness will have a viral illness, he would not just assume this to be the case. Rather, he would take a history, thoroughly examine the child, decide on the utility of investigations and by a process of synthesis of all the information arrive at a clinical impression or diagnosis.[42]

54. In Dio's case, Dr Martin did not consider that she had the symptoms of a serious bacterial infection or sepsis at the time he examined her. He noted that she had diarrhoea which is much more commonly caused by a virus but can sometimes be caused by bacteria. Dio's vital signs were not concerning – she did not have a sustained tachycardia, her respiratory rate and oxygen saturations were normal, and she was alert and reasonably interactive. In summary, Dr Martin described Dio as *"more well than unwell"*. Referring to the expert evidence, he conceded that it is difficult to differentiate the start of a bacterial infection from a viral infection. However, even considering the situation in retrospect, Dr Martin did not think there was anything in Dio's presentation to indicate a serious bacterial infection.[43]

55. Dr Martin was questioned about the place of investigations if an infective process is suspected and said he would not necessarily undertake investigations if he thought a patient had erysipelas or cellulitis (that is, a bacterial infection). According to Dr Martin, such investigations as are available are not perfect, and take time, so one might initiate treatment with antibiotics on clinical grounds and then investigate or might not investigate at all.

56. As a general proposition, he said investigations are only undertaken if they might be expected to change a patient's management.[44] Later, in cross-examination by Ms Fitzgerald he said, *"as a general rule what's more important is the history and examination and how the patient appears in front of you … this holds true for all medicine but particularly in paediatrics … where we would generally only do investigations if we think that the investigations will change management, and that is both in the terms of…doing them but also not doing them."*[45]

[42] Transcript pages 138-140, 185.
[43] Transcript pages 139-143,173-179, 203. Not that a nasal swab later confirmed the presence of rhinovirus/enterovirus in Dio but this result was not available to Dr Martin when he saw her in the ED – see transcript page 180.
[44] Transcript pages 134-135.
[45] Transcript pages 195-196.

57. Mr Wallis took Dr Martin to the RCH Febrile Child Guideline.[46] Dr Martin said that this was a guideline with which he was familiar when he reviewed Dio and could have checked on the computer in ED if necessary. When taken through the guideline's features suggestive of an unwell child, Dr Martin maintained that Dio had a fever and a rash but was not seriously unwell in the way that was meant by the guideline. The effect of his evidence was that Dio was unwell in that she was suffering an illness and therefore *"not well"* but was not *"unwell"* in the sense that the word is used in the guideline and understood by paediatricians, which translates in lay terms to *"seriously unwell"*.[47]

58. Dr Martin consulted Dr van Hest and they had a joint discussion with Ms Jowett about two options for Dio's management – an admission to the Short Stay Unit for observation or a review by a consultant paediatrician in the RRC the following morning. Ms Jowett opted for the latter, and an appointment was made for Dio to be seen at 10.40am on 22 November and she was discharged home.[48]

59. Neither in his statement, nor at inquest could Dr Martin recall the specific advice he gave to Ms Jowett upon discharge.[49] However, he gave evidence of his general practice which was to provide safety nursing advice to all parents which includes general features that might indicate Dio was becoming more unwell, things like being lethargic, irritable or her fluid intake dropping off to less than fifty per cent of normal or any parental concern in which case she should re-present to the ED.[50]

60. Dr van Hest was the consultant paediatric emergency physician at MMC with whom Dr Martin discussed Dio's presentation. Dr van Hest provided a statement and gave evidence at inquest.[51] Dr Martin discussed Dio's presentation with Dr van Hest. Given Dio's history of trisomy 21, previous heart abnormalities, hypothyroidism and her status as a non-verbal three-year old, Dr van Hest considered it appropriate to review her in person. Before doing

[46] The guideline is at pages 165-170 of the inquest brief. On its face, it is issued under the auspices of SaferCare Victoria and is described as an adaption of the RCH guideline that has been adapted for statewide use with the support of the Victoria Paediatric Clinical Network.
[47] Transcript pages 157-163.
[48] Page 89 of the inquest brief and
[49] Page 90 of the inquest brief and transcript page 164.
[50] Transcript pages 164-165.
[51] Dr van Hest's statement dated 11 February 2021 is at pages 82-87 of the inquest brief, his evidence at transcript pages 210-264. Dr van Hest had experience in paediatrics since 2008-2009 and then worked exclusively in paediatrics since becoming a paediatric emergency physician in 2018. Note that his statement also addresses Dio's return to the ED in extremis on 29 November when he was involved in trying to resuscitate her.

so, he reviewed correspondence about Dio's most recent cardiology review and echocardiogram which showed a normal functioning heart.[52]

61. Dr van Hest found Dio comfortable and settled with her mother. Despite being febrile, she was alert, had normal vital signs over more than two hours of observations, and was tolerating fluids. In a child presenting with two to three days of illness, he considered these reassuring signs that there was no underlying serious bacterial infection.[53]

62. According to Dr van Hest, ED presentations of febrile children with associated rashes are extremely common. Two primary concerns in such cases are to determine the likely source of the fever and to assess the rash and its likely source. In his practice, he always considers the possibility of a serious bacterial infection like Group A Streptococcus in such presentations.[54]

63. Noting that Dr Martin had ruled out an allergic process, Dr van Hest examined Dio's rash and considered it was likely urticaria and likely caused by a viral illness. Dio's rash had none of the features of a more concerning rash such as would be consistent with a serious bacterial infection. It was a blanching rash, whereas a non-blanching rash would be concerning. The rash was swollen, raised and primarily affected her face. Of note, it did not look like the most common rash associated with Group A Streptococcus.[55]

64. Dr van Hest concluded that Dio did not have symptoms suggestive of a bacterial infection. In particular, she did not have any of the hallmarks of severe bacterial infection or shock such as significant tachycardia, abnormal breathing, low blood pressure, lethargy and listlessness. His impression was that Dio had a viral illness causing both the fever and rash.[56]

65. At inquest, Dr van Hest was questioned at length about the rash he observed on Dio and stood by his clinical impression that it was viral urticaria. He considered erysipelas a subset of cellulitis, the former being a superficial skin infection confined to the upper layers of the skin whereas cellulitis is a generic term that includes infections of the deeper layers. According to Dr van Hest, cellulitis is associated with a broad variety of bacteria, whereas

[52] Page 83 of the inquest brief. See transcript pages 211-212 regarding the relevance of Dio having trisomy 21.
[53] Ibid.
[54] Ibid.
[55] Ibid. Dr van Hest described such a rash as scarlatiniform, often appearing as very fine, raised small spots on a red background, typically initially affecting the groin and armpits before spreading to the rest of the body and having a sandpaper texture.
[56] Ibid and transcript pages 255-260.

erysipelas is specifically associated with Group A Streptococcus and typically presents as a raised, tender, very red rash which tends to spread out from its origin or confluently.[57]

66. Apart from the appearance of the rash and its distribution, Dr van Hest distinguished urticaria or a reactive rash from cellulitis or skin infection based on the history. According to Ms Jowett, although Dio's illness started with fever and diarrhoea on about 19 November, the rash that prompted the ED presentation did not appear until day three of the illness. Dr van Hest's evidence was that it is very common for a rash that is part of a broader viral illness to develop in the later part of the illness as in Dio's case. Conversely, in a rash that is bacterial, *"the inflammatory response that generates the fever is actually a response to the activity of the bacteria in the skin. So I would expect that the fever and the rash come at a very similar point in time over the course of the illness."*[58]

67. Mr Wallis took Dr van Hest to photos of Dio's rash taken by Ms Jowett.[59] Accepting that photographic assessment of a rash is not optimal, nevertheless, Dr van Hest felt the photos were useful in showing a progression of the rash over time, the rash flaring up, becoming quite prominent and then resolving over the following days. While his clinical impression of viral urticaria was based on physical examination of the rash during Dio's first ED presentation, Dr van Hest thought the series of photos showed areas of different rashes. In particular, he thought the rash over Dio's cheeks looked a little angry and redder but not particularly raised; and that the rash over the forehead resolved, and other areas of rash had improved by 24 November.[60] He thought this lent support to his clinical impression of urticaria as a bacterial infection would not be expected to have improved without antibiotics.[61]

68. Mr Wallis also took Dr van Hest to the report of Associate Professor Luke Lawton (**A/Prof Lawton**) that pertained to Dio's rashes, culminating in his opinion that the rashes are *"very atypical for urticaria in terms of the look of the rash, its distribution, is persistence and its*

[57] Transcript pages 212-215, 251.
[58] Transcript page 214.
[59] Transcript pages 216-220. The photos are at pages 1102-1111, 1115-1116, 1119-1132, 1135-1137, 1140-1141 and 1144-1145 of the inquest brief. They were taken by Ms Jowett and were annotated by her as to date and time. They span the period from 21 November 12.22pm to 29 November 2.00am, however, there are no photos dated 25, 26 or 28 November.
[60] Transcript pages 243-246. See especially transcript page 246 for Dr van Hest's evidence – *"...when I looked at the images over a period of time, ah, I actually saw different rashes evolving at different rates across the face. So for Dio the initial rash was, ah, over the forehead involving the eyelids, um, followed ah – which became very red over the subsequent days. Ah, the redness starts to, ah, come out – a very intense rash, ah, parts of the mouth as you can see in this picture are well demarcated. And as it evolved it, ah – it appeared to merge with the, ah, rash on the forehead. And, um, further on from that then the, ah – the left cheek appeared to start. And as they, um progressed, they ah – at the edges they, ah would merge together."*
[61] Transcript pages 252-253.

non-migratory nature".[62] While Dr van Hest accepted that the photos showed multiple different rashes, he maintained that the rash that was his focus on 21 November was relatively *"typically urticarial and followed the course with resolution over a couple of days that he would expect with a viral induced urticaria"* to be distinguished from an allergic urticaria which has a rapid onset with exposure to the allergen and rapid resolution on its removal.[63]

69. Dr van Hest believed that the rashes A/Prof Lawton was describing were those on Dio's cheeks and agreed that he would not classify those as urticarial. He disagreed that Dio had erysipelas when he examined her, based on the history of her illness, her clinical features and his examination on the day. When pressed, he conceded that it was possible that Dio had erysipelas, saying that *"there are few certainties in medicine"*.[64]

70. Apart from the opinion that Dio's rash was bacterial, Dr van Hest was taken to other aspects of A/Prof Lawton's report.[65] The criticism that the diagnosis of viral gastroenteritis with urticaria was poorly founded on a history of three loose stools over three days; the absence of vomiting; and the failure to examine the lymph nodes. The opinion that the combination of loose stools and the facial rash in a child with a particularly high fever and higher than normal risk of infection due to trisomy 21 *"should have prompted specific consideration of sepsis and maintenance of this diagnosis until it had been definitively excluded"*.

71. Dr van Hest provided a fulsome response to these criticisms. In summary, that vomiting is not a necessary or even common feature of gastrointestinal illness; that gastrointestinal symptoms are generally not associated with a bacterial skin infection; that he did not recall examining the lymph nodes but enlarged lymph nodes are an extremely common finding in a patient with a viral illness and not a specific marker of any particular type of infection; and stated that it was an erroneous assumption that Dio presented with sepsis.[66]

72. Dr van Hest suggested a different approach to a patient presenting with fever which is commonly due to an infection whether viral or bacterial, more along the lines of the febrile child guideline based on an assessment of the child a *"well"* or *"unwell"* by reference to the features in the febrile child guideline. Then, as the illness progresses, looking for the

[62] A/Prof Lawton provided a medico-legal opinion on behalf of Ms Jowett dated 14 September 2021 at pages 1070-1080 (including his curriculum vitae). He is the Director of Emergency Medicine at Townsville University Hospital and an Associate Professor at James Cook University College of Medicine and Dentistry. Transcript pages 220-222.
[63] Transcript pages 222-223, to paraphrase.
[64] Transcript page 225.
[65] Transcript pages 225-228.
[66] Transcript pages 226-228.

clinical signs indicating a transition from a local infection to sepsis, the effects of the bacteria entering the bloodstream and the progression to septic shock and end organ hypoperfusion.[67]

73. In this context, Dr van Hest referred to Ms Jowett's description of Dio overnight on 28-29 November as follows – *"as a paediatric physician it was very difficult hearing Miranda's evidence yesterday, um, because she actually gave the history in the latter days…that had all the hallmarks and the text book hallmarks of a child with sepsis, being that she wouldn't stop crying, she didn't want to be picked up, she couldn't support her own weigh and these are all…massive red flags and a very different picture of the child that, um, was present in the emergency department*."[68]

74. On behalf of the family, Ms Fitzgerald questioned Dr van Hest about aspects of the independent expert report of Dr Julia Clark (**Dr Clark**), a paediatric infectious diseases specialist.[69] Dr van Hest agreed with the possibility that Dio had a viral illness initially and then subsequently developed a bacterial infection. He also agreed that children who have had a viral illness are more likely to develop a subsequent bacterial infection. Dr van Hest did not agree that when Dio presented to the ED for the first time she had intercurrent viral and bacterial infections. His evidence was that the symptoms and history that Dio presented with were most likely and/or best explained by a single illness rather than two intercurrent illnesses. He maintained there were no clinical signs of a bacterial infection, that while this was considered at the time, there was no evidence of a bacterial infection.[70]

75. Dr van Hest had seen a child with erysipelas and, apart from Dio, had seen children with streptococcal septic shock. These were some of the sickest children he had ever looked after and presented one of the most frightening clinical pictures, with rapid clinical deterioration that was refractory to treatment.[71] Based on his experience, Dr van Hest agreed that children that have had a viral illness appear to then be susceptible to septic shock or invasive Group A streptococcus septicaemia. Such cases – *"have progressed over the course of minutes to hours to one to two days. I've never seen a patient…that has invasive*

[67] Transcript pages 229-230.
[68] Transcript page 230. Dr van Hest characterised sepsis as follows – *"a clinical syndrome…multi-organ, ah, dysfunction, um, caused by either the direct actions of the bacterial infection, bacterial toxins, or a – a disoganised inflammatory response."* – see transcript page 254.
[69] Dr Clark's expert opinion dated 18 July 2023 is at pages 1153-1160 of the inquest brief.
[70] Transcript pages 240-241, 248-249, 259-263. "Intercurrent" and "concurrent" seemed to be used interchangeably in evidence.
[71] Transcript pages 254-255.

group A strep be sick from group A strep for…any period beyond a couple of days prior to presenting with shock…".[72]

76. Like Dr Martin before him, Dr van Hest stated that the degree (or height) of a fever was not a good indicator of the seriousness of the illness. The significance a fever over five consecutive days was also raised with Dr van Hest. He recognised a clinical distinction between a fever of up to or more than five days that warranted review and consideration of whether the child was improving. Whilst a viral illness could cause a fever for a week or more, in and of itself such a fever would not be concerning independent of other clinical factors. However, starting from the five-day mark, other conditions/diagnoses would need to be considered if there was no clinical improvement.[73]

77. Dr van Hest acknowledged the difficulties of distinguishing between a viral and a bacterial infection in the early stages of an illness, such as when he saw Dio in the ED. Moreover, there is no specific diagnostic test, including any blood test, that would assist in this regard. While Dio's observations (fever apart) were normal, observations of Dio's progress were important, and the offer of admission to the short stay unit or an appointment at the RRC, was in part informed by the opportunity to observe Dio.[74]

78. Dr van Hest could not recall the specific advice he gave Dio's mother Ms Jowett regarding discharge. Based on his usual practice he would have addressed her primary concern which was then the rash by saying that over the next 24 hours it may very well change; that a change in the rash was not concerning; and that Dio would likely still have a fever going up and down. Given Dio had gastrointestinal symptoms he would have given safety net advice around fluid intake, particularly if Dio was not eating, and ideally that she should have an electrolyte solution as well as glucose for energy. His practice was also to give a written information sheet (at that time he used the RCH parent information sheet) but as he was not the one giving her the discharge summary, he could not say whether that happened. As far as the verbal advice was concerned, Dr van Hest was quite certain that he had that discussion with Ms Jowett.[75]

[72] Transcript page 255.
[73] Transcript pages 256-259.
[74] Transcript pages 260-261.
[75] Transcript pages 233-235.

Presentation to Monash Medical Centre Rapid Review Clinic on 22 November 2019

79. Dio's first attendance at the RRC was at about 11.00am on 22 November when she was seen by consultant paediatrician Dr Pappas. As at the date of that consultation, Dr Pappas had about 39 years of practice exclusively in paediatrics. He provided a statement and gave evidence at inquest.[76]

80. According to Dr Pappas, the RRC saw patients referred from the ED or referred on discharge from a ward, if they required earlier review than might otherwise be available, particularly if this enabled children to be discharged home earlier from an inpatient unit. The RRC operated for a morning or afternoon session most days of the week and appointments were generally for 20 minutes but could take as long as was required. The RRC did not operate out of the ED and essentially afforded the patient an outpatient appointment with a paediatrician. Nursing staff were not available to take observations, but paediatricians had the necessary equipment to take observations themselves if required.[77]

81. Apart from taking Dio's temperature (40°C), Dr Pappas did not take a full set of vital signs as he did not think it necessary. As with any review, the patient's condition would dictate the need for a full set of vital signs, and the patient could be referred to the ED for tests unavailable in the RRC. He noted that Dio's vital signs were normal when taken in the ED earlier that morning and normal again when Dio re-presented to the ED later that night. If he felt Dio needed admission, RRC procedure was to refer her back to the ED.[78]

82. As regards the significance of Dio having trisomy 21, Dr Pappas recognised she had a degree of immunocompromise that put her at increased risk for common infections (such as respiratory infection and otitis media) but was not aware of an increased susceptibility to septicaemia or immunocompromise akin to children undergoing chemotherapy.[79]

83. Dr Pappas recalled seeing Dio and examining her for signs of a bacterial infection. He examined her chest and performed an ear nose and throat examination and found no signs of bacterial infection. He also examined Dio's rash which was confined to her face and cheeks and was symmetrical, red, slightly raised and not consistent with cellulitis or typical of any viral or bacterial infection with which he was familiar. Dr Pappas thought the rash

[76] Dr Papas' statement dated 10 February 2021 is at pages 75-78 of the inquest brief and transcript pages 264-30.
[77] Transcript pages 265-267.
[78] Transcript pages 270-271.
[79] Otitis is an ear infection or inflammation usually distinguished as otitis externa (outer ear passage), otitis media (middle ear) and otitis interna (inner ear also referred to as labyrinthitis). Transcript pages 271-274.

was consistent with facial urticaria, not specific to any particular condition and documented in his notes that it was *"not an infective rash"*.[80] At inquest, he conceded that a bacterial rash was possible but he did not think it likely.[81]

84. When asked to describe urticaria, Dr Papas said it is a rash that results in dilatation of the blood vessels in the skin as redness; sometimes with mild swelling; it looks like hives that may come and go and may also be confluent; but is not associated with the signs of infection. That is, it is not tender, it blanches with pressure and is not necessarily associated with but can be caused by fever.[82]

85. Dr Pappas had seen many cases of other rashes such as urticaria, facial cellulitis, orbital cellulitis and impetigo, erysipelas was the least common of all, is quite distinctive and is not as common as other infections which involve the face. According to Dr Pappas, while erysipelas can occur anywhere on the body, he has seen it on the cheek unilaterally and believes it can be bilateral. Erysipelas tends to start in one area and spread out. When he has seen erysipelas, he has not thought 'this might be urticaria' but when he has seen urticaria, he has wondered if it could be erysipelas.[83]

86. Mr Wallis took Dr Pappas to A/Prof Lawtons's report, starting with the opinion that Dio's rash was not urticarial and was concerning for an infection. Dr Papas testified that in determining whether the rash is reactive or infective one looks at the history and examination findings and, in this case, the evolution of the rash. In this setting, where different doctors assess the rash at different points in time, serial photos of the rash are *"very helpful because they show the chronicity and the evolution and the development of the rash"*.[84]

87. In Dio's case the delay between the first appearance of the illness (fever) and the appearance of the rash was more typical for a reactive or urticarial rash. Moreover, in the initial photos, Dio's rash was most prominent on the forehead where it was quite extensive from the outset and unusual for erysipelas both in terms of its location and the extent of the rash rather than being localised (generally on the cheeks) and then spreading confluently.[85]

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[80] Page 76 of the inquest brief and transcript pages 274, 277.
[81] Transcript page 278.
[82] As to the causes of urticaria, Dr Pappas added – *"It can be caused by viral infections, it can be caused by emotion, it can be caused by physical triggers such as heat, um, or other stimuli. So it has a wide range of causes. Um, and of course allergy is one of the main causes, but it is associated also with febrile illness."* Transcript page 274.
[83] Transcript pages 274-276.
[84] Transcript page 284.
[85] Transcript pages 283-286.

88. According to Dr Pappas, the photos also show an improvement or resolution of the rash without any medical treatment over a time course of five to seven days which would not be expected with a bacterial infection. Conversely, the expectation would be that the infection would spread and potentially cause a range of problems.[86] To the implication that the rash was erysipelas caused by Group A streptococcus from the outset, Dr Pappas said – *"However if the Erysipelas/Cellulitis resolves without treatment then you have to ask yourself why would it happen that way, and it would happen that way because the immune system has overcome the infection…therefore one would imagine in that case that further infection particularly severe infection would be less likely rather than more likely…".*[87]

89. In regard to A/Prof Lawton's comment that it would be unusual though not impossible to have a viral gastroenteritis without vomiting, Dr Pappas testified that it depends on the virus, some causing diarrhoea, some causing vomiting and others associated with both. Nor did Dr Pappas attach any particular significance to the criticism that there was no apparent examination of the lymph nodes. He thought if enlarged lymph nodes had been observed this would have been documented. However, his evidence was that enlarged lymph nodes would be expected in any infection whether viral or bacterial and this finding would not have lent weight to either diagnosis. He reiterated that –*"the thing is you have to put everything together and the significance of one finding is often determined by the company it keeps, so you have to try and blend everything together…so to pick out one thing and say this means that it's bacterial or viral or 'x' disease or 'y' disease one thing, I mean, sure there are some markers of certain diseases that are pathognomonic, but in this viral, bacterial, what is the cause, it's very non-specific."*[88]

90. Dr Pappas testified about the nature of Group A streptococcus infection which progress rapidly from its inception unless identified early by looking for (and identifying) early signs of sepsis. Dio was not considered septic on clinical grounds and did not have investigations for sepsis. If Dio had early markers of sepsis on examination and investigations, she would have been admitted and *"in intensive care and fighting for her life within hours"* and would not have presented as she did at her review appointments. Dr Pappas noted that there are no tests that predict that a patient is going to develop overwhelming sepsis at some future time.

[86] Transcript pages 287-289.
[87] Transcript page 289-291.
[88] Transcript page 292-294

Such tests as are available detect the early onset of sepsis and once detected always herald a medical emergency. [89]

91. According to Dr Pappas, the fact that the postmortem vitreous procalcitonin level was negligibly low after an illness of one week is in keeping with his belief that Dio succumbed to a fulminating overwhelming Group A streptococcal infection that occurred shortly before her death leaving little time for acute phase reactants to rise.

92. When questioned by Ms Fitzgerald, Dr Pappas maintained that Dio was not seriously unwell when he saw her in the RRC. He put her in the category of mildly to moderately unwell – miserable, not her normal self, active, keeping up with her fluid intake, may not be eating as well as usual, conscious and able to be settled, not dehydrated and with normal vital signs.

93. Dr Pappas thought Dio was well enough to go home. He found Ms Jowett a *"very reliable mother"* and Dio well cared for and did not consider anything more was indicated beyond a further RRC review the following day. In part this was due to the higher threshold of concern for Dio, but also because the clinical course of her illness was not known and/or unpredictable and further medical review is good medical practice.[90]

94. Dr Pappas became aware of Dio's death within one to two weeks. He had a recollection of Dio's appointment and based his statement on that recollection and notes he made at the time. He recalled seeing Dio with her water bottle, drinking almost a whole bottle of water and was reassured about her fluid intake. He conceded he could be wrong in recollecting Dio walking around the room (unaided) and agreed with the suggestion that she may have been *"furniture surfing"*. In his recollection, Dio's rash was mostly on her cheeks. However, when taken to the photos by Ms Fitzgerald, he conceded this recollection could be wrong about this. [91]

95. Consistent with the evidence of the colleagues who preceded him, Dr Pappas did not consider the degree or height of a fever a good predictor of serious illness.[92] Nor did he believe a fever that persisted for five days (or more) required any mandatory response other

[89] Transcript pages 296-298.
[90] Transcript pages 307-309, 315. "*...what you don't know is how the illness is going to evolve. So just because a child is mildly unwell today doesn't mean they're not going to be severely unwell tomorrow. So a review is important. Review whether the diagnosis is correct, whether there are any new clinical signs, whether their condition has improved or deteriorated etc., so I think it is good medicine to review patients, you know, when they're unwell, children in particular..."(because they can go downhill quite rapidly).*
[91] Transcript page 312, 314, 319, 321, 323-324.
[92] Transcript page 324.

than a fulsome medical review and an appropriate clinical response to whatever was revealed by the history and examination. While Dr Pappas acknowledged the febrile child guideline, he maintained that in the end it is a matter for clinical judgement as with every consultation.[93]

96. When taken by Ms Keeling to Ms Jowett's description of how Dio was from dinner time on 28 November and early on the morning of 29 November and asked if that description had anything in common with Dio's condition when he saw her, apart from the fever. He responded – *"No that's a very disturbing picture you paint there."* Dr Pappas went on to say that as described, Dio was certainly septic by then, certainly critically ill and Ms Jowett was extremely worried about her. He calculated that Ms Jowett's description spanned some eight hours and expressed the opinion that *"eight hours is certainly plenty of time for a well child who's got invasive Group A streptococcal septicaemia to collapse and die. It's plenty of time."*[94]

Presentation to Monash Medical Centre Emergency Department on <u>22/23 November 2019</u>

97. In November 2019, Dr Wijeyesakere was a senior registrar in the Paediatric Emergency Unit at MMC. She was undertaking a three-month rotation in paediatrics in the ED in accordance with the requirements of the Australasian College for Emergency Medicine (**ACEM**). As at the date of the inquest, Dr Wijeyesakere was a senior registrar in and adult emergency department and an advanced trainee of the ACEM.

98. Dr Wijeyesakere reviewed Dio during her second presentation to the ED on 22 November. She provided a statement and gave evidence at inquest.[95] Relying on the medical records, Dr Wijeyesakere stated that Dio and her mother presented at 2329 hours. Triage notes indicated Dio had had been seen in the RRC earlier that day and her rash was *"cleared as viral rash"*. She had diarrhoea, no vomiting, a good intake and was febrile with a puffy right eye. A nurse saw Dio at 0133 on 23 November and noted she presented with a rash, right eye and general facial swelling and had a temperature of 40.5°C.

99. Although Dr Wijeyesakere's notes were time-stamped 0721 hours, she believed her review of Dio took place between the nursing assessment at 0133 hours and around 0245 hours

[93] Transcript pages 324-326. Dr Pappas added *"I sort of understand where, you know you hear of bad outcomes and prolonged fevers that you want to put in, something in place that might pick up those that don't do well but I', not sure that anybody's sort of established that these things really help…"*
[94] Transcript page 328-329.
[95] Dr Wijeyesakere's statement dated 11 February 2021 is at pages 79-81 of the inquest brief, her evidence at transcript pages 562-626 and her second statement dated 7 August 2023 was Exhibit D.

when she ordered ibuprofen, paracetamol and loratidine (an antihistamine) for the rash. At around 0354, Dr Wijeyesakere arranged for a nasopharyngeal aspirate (**NPA**) to be taken.[96]

100. Dr Wijeyesakere reviewed the notes from the first ED presentation and the RRC and ascertained that Dio had re-presented to the ED with a worsening rash and her mother was anxious that her right eye was swollen.[97]

101. On examination, Dio was irritable (in the sense of *"grumpy"* not *"cerebrally irritated"*)[98] her temperature was 40.5℃, heart rate was 131, respiratory rate was 26 and oxygen saturations were at 99 per cent. Other than fever, Dio's vital signs were within normal limits and there was no evidence of rash anywhere other than her face. Dr Wijeyesakere concluded Dio had a pronounced urticarial rash over her face consistent with a viral illness and also a mild conjunctivitis in the right eye to which she attributed Dio's irritability. In light of Dio's largely normal vital signs, Dr Wijeyesakere considered it appropriate to continue with the current management plan, that is for review in the RRC on the morning of 23 November as had already been planned.[99]

102. Dr Wijeyesakere did not conduct any further investigations and invoked the paediatric precept that invasive investigations such as blood tests, x-rays and/or urine samples are not usually performed unless they are likely to change a patient's management as it could be unnecessarily distressing to the child. In any event, she did not consider there was a clinical indication to perform further investigations.[100]

103. In arriving at her diagnosis and management plan, Dr Wijeyesakere testified that she reviewed the notes of Dio's previous presentations, took a history from Ms Jowett and examined Dio to come to her own independent assessment.[101] Dr Wijeyesakere was the senior registrar working the night shift on 22 November and did not seek advice from a supervisor.[102]

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[96] Pages 79-80 of the inquest brief. The NPA was performed to confirm or otherwise rule out that the likely source of the rash was viral in nature. The swab, collected at 0354hours, was reported later that afternoon and confirmed rhinovirus and enterovirus, both viral infections. The results were not available to Dr Wijeyesakere at the time of discharge, but she expected Ms Jowett would access them via her GP.
[97] Page 80 of the inquest brief and transcript pages 565-566.
[98] Exhibit D at paragraph 6.
[99] Ibid.
[100] Ibid and transcript page 580, 599.
[101] Transcript pages 566-569.
[102] Page 81 of the inquest brief.

104. When taken to the 2017 Consultative Council on Obstetric and Paediatric Mortality and Morbidity (**CCOPMM**) recommendation[103] that an infant, child or adolescent who presents to hospital on three occasions during a single illness should be admitted and further investigations undertaken, Dr Wijeyesakere stated she was aware of the recommendation in 2019 but did not think it applied as she saw Dio at her second presentation, the RRC appointment being a *"planned presentation"* which she did not think was relevant.

105. Dr Wijeyesakere maintained she performed a *"complete assessment"* and *"could have spoken to a consultant in the morning and placed Dio in the short stay unit if she didn't need admission, if she was not that sick in the context of abnormal vital signs."* In what I understood to be a general comment about the role of clinical guidelines, Dr Wijeyesakere stated *"guidelines are set out as such but every patient is seen by, you know, a case by case by patient ... it will always depend on how you review the patient and make your decision at the bedside"*.[104]

106. Mr Wallis took Dr Wijeyesakere to the 2019 Monash Health protocol for re-presenting patients which provides that patients re-presenting within 72 hours must be reviewed and managed by a consultant.[105] Dr Wijeyesakere testified that she became aware of this requirement during her orientation to the ED, was aware of it in 2019, and would have had it in mind when seeing patients in 2019. However, her interpretation of what the guideline required of her at Dio's second presentation to the ED within about 24 hours was idiosyncratic to say the least, unsustainable by reference to the plain words of the guideline and colourable.[106]

107. When taken to the 2021 iteration of the guideline, Dr Wijeyesakere, who still works within a Monash Health ED, demonstrated little familiarity with it and maintained the attitude that compliance with the guideline was discretionary and not required.[107]

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[103] Transcript page 570-571.
[104] Transcript page 571.
[105] Page 253 of the inquest brief. The guideline is at 3.5.10 **Representing Patients** and the full text is *"Patients representing within 72 hours, must be reviewed and managed by a consultant. When the consultant is in available (0000hrs-0800hrs) they are to be reviewed and managed by a senior emergency registrar and a second senior registrar from the most appropriate inpatient team. For example a paediatric patient would be reviewed by the paediatric inpatient team. Patients representing to the Emergency Department within 7 days should be discussed with the senior doctor."* I note the discussion at transcript page 574-575 about whether this requirement was a guideline and therefore not binding or a protocol that must be followed. Suffice to note that the plan language of the guideline is in mandatory terms and Dr Adam West, Director of Paediatric Emergency Medicine at Monash Health was of the view that the guideline was applicable and not complied with on this occasion.
[106] Exhibit D and transcript pages 571-577.
[107] This is a paraphrase. Transcript pages 584-587.

108. The questioning of Dr Wijeyesakere about vital signs taken during Dio's second ED presentation was somewhat confounded by the printed form of the medical records from Monash Health that were included in the inquest brief which were not always in chronological order and were somewhat repetitive. Ultimately, a hard copy document was produced by Dr Keeling which indicated that two sets of vital observations were taken from Dio and all parameters apart from temperature were within normal parameters.[108] I note that the only parameters documented twice are oxygen saturation, respiratory rate, heart rate, and temperature.[109]

109. Dio's first set of vital signs taken on this presentation at triage and timestamped 2329 hours comprised temperature at 38°C which indicated Dio was minimally febrile, peripheral pulse rate of 120 and AVPU conscious state of *"alert and normal"*.[110]

110. At 0133 hours, Dio had an elevated temperature at 40.5°C which triggered a *"deteriorating patient alert event"* at 0139 but no other vital signs were taken at this time. In response to the alert, Dr Wijeyesakere ordered paracetamol, ibuprofen and loratadine at a time between about 0211 and 0216 hours with a view to reassessing her response.[111] There was an attempt by nursing staff to take Dio's vital again at 0216 hours, but this was abandoned as Dio was unsettled and uncooperative.[112] At 0241 hours, Dio's respiratory rate was 26 and her peripheral pulse rate was 131. No other vital signs were recorded.[113]

111. The expectation in the ED is that vital signs are taken at four-hourly intervals unless the patient's state is such that a doctor orders more frequent recording of vital signs (or nursing staff instigate more frequent observations for the same reason).[114] There is also an expectation that vital signs will be taken in the hour immediately before discharge to ensure it is still safe to discharge the patient.[115] In Dio's case, her vital signs were not taken again after the administration of antipyretics in response to the alert prompted by her elevated temperature, nor were they taken with one hour of discharge at around 0400 hours.

[108] Transcript pages 607 and following and Exhibit E.
[109] There is a notation regarding consciousness/coma score which I cannot decipher on Exhibit 2 (page 2 of 2).
[110] Medical records at page 555 of the inquest brief and transcript pages 591-592. See also, medical records at page 919-921 and discussion t transcript pages 610 and following.
[111] Transcript pages 593-594.
[112] Medical records at page 548 of the inquest brief and transcript page 594. Although not referred to in the questioning, Dio's oxygen saturations are also recorded at this time.
[113] Ibid.
[114] Transcript page 579, 590.
[115] Transcript page 591, 596.

112. In response to questions from Mr Wallis, Dr Wijeyesakere stated that in assessing Dio she did not need to be concerned for a potential bacterial infection and did not turn her mind to the possibility of a bacterial infection. Nor did she consider there was a need to document that she had considered and ruled out a bacterial infection. This aspect of her evidence was both surprising and concerning.[116]

113. In arriving at a discharge plan, Dr Wijeyesakere was aware that Dio had a scheduled appointment at the RRC later that day and described a shared-decision-making process ensuring that any parental concerns had been addressed – *"so I would have talked to Dio's mum and we made the decision together to see once the fever, once we've given the paracetamol and ibuprofen, if Dio's symptoms resolved she was less irritable … to see if she was happy to go back and come back for the Rapid Review Clinic versus staying in our short stay ward for a review in the morning…also in the aspect of safety netting. So if the child needs, if the mother is concerned … to definitely keep the child in or Dio in hospital for a review in the morning but is she was happy, to go back and come for the Rapid Review."*[117]

114. Later, when questioned by Dr Keeling, Dr Wijeyesakere invoked the same RRC appointment by way of compliance on her part with the requirement that patients re-presenting to the ED within 72 hours must be reviewed and managed by a consultant.[118]

Presentation to Monash Medical Centre Rapid Review Clinic on <u>23 November 2019</u>

115. Dr Arachchi was the consultant paediatrician who reviewed Dio at her second RRC appointment on 23 November. Dr Arachchi has worked in paediatrics since 2010, completed her fellowship in 2017 and started working as a consultant paediatrician in February 2018 both at Monash Health and in private practice. Dr Arachchi provided a statement and gave evidence at inquest.[119]

[116] It is *possible* that there was a language issue at play here – see transcript pages 528-583 – and that Dr Wijeyesakere was meaning to convey that taking all factors into account, she did not consider Dio had a bacterial infection. That said, Mr Wallis' questions were clear enough, as were her answers.
[117] Transcript pages 598-599.
[118] Transcript page 623. It should be noted that, in his statement, Dr Adam West, Director of Paediatric Emergency Medicine at Monash Health since 2012 clearly conceded that the guideline was not followed, however, he expressed the opinion that the plan for Dio to be reviewed in the RRC was a clinically reasonable alternative plan.
[119] Dr Arachchi's statement dated 17 December 2020 is at pages 71-74 of the inquest brief and the transcript of her evidence is at pages 626-690.

116. Either prior to or during the consultation, Dr Arachchi had reviewed the medical records and was aware of Dio's presentation to the ED earlier that morning as well as the first RRC review by Dr Pappas.[120]

117. According to her statement, Dr Arachchi obtained a detailed medical history and a history of Dio's presenting complaint from Ms Jowett. The latter included gastrointestinal symptoms (loose stools) for 3-4 days but no loose stools the day before her review when she had only one loose stool whereas she had two loose stools the day before that. This indicated an improvement in those symptoms at the time of her review. Dio had had a fever for 4-5 days and Dr Arachchi noted an urticarial rash which her mother said had started on her eyes and then moved to her cheeks. According to Ms Jowett, Dio was drinking fluids well and had a reduced appetite compared to usual which Dr Arachchi considered in keeping with gastrointestinal symptoms and fever.[121]

118. Dr Arachchi set out her examination of Dio in some detail.[122] Her first impression of Dio was that she looked clinically well, was alert and interactive and remained so. On examination, Dio had a temperature of 38.7°C, no work of breathing, a normal respiratory rate and, on auscultation, her heart rate and rhythm were normal with dual heart sounds and no additional sounds or murmurs. Auscultation of Dio's chest revealed clear vesicular breath sounds bilaterally and, on examination, her abdomen was soft and non-tender. Dr Arachchi performed an ear, nose, and throat examination and found Dio's tonsils were mildly enlarged and slightly red without evidence of pus.[123]

119. Dr Arachchi's assessment of Dio's rash was that it appeared consistent with an urticarial rash and she noted it was blanching in nature. The rash was on the face and mainly the cheeks and no evidence of rash was noted on Dio's trunk and limbs. No puffiness or swelling of the right eye was observed during the examination.

120. Dr Arachchi's overall impression was that Dio most likely had a resolving viral infection associated with gastrointestinal symptoms and also involving the upper respiratory tract and that her urticarial rash was consistent with the underlying viral infection. She noted an improvement in in symptoms in that she had no loose stools since Friday (the day

[120] Page 71 of the inquest brief.
[121] Page 72 of the inquest brief.
[122] Ibid.
[123] Ibid.

before) and there was no deterioration in that she was still drinking and eating albeit with a reduced appetite.

121. In terms of her expectations of the progression of Dio's illness and the plan, Dr Arachchi stated – *"In my clinical experience, the most likely course for a viral illness of this nature is that it usually improves with conservative measures including maintaining adequate hydration and symptoms based management and that fevers are likely to resolve as symptoms improve. I understand the NPA results later confirmed the presence of enterovirus and the clinical findings and Dio's symptoms that I noted during my assessment were in keeping with a self-limited enterovirus infection"*.[124]

122. In light of all of the above, Dr Arachchi's recommendation or plan was that Dio should continue with paracetamol as required (to assist in relieving any symptoms associated with her mildly enlarged and slightly red tonsils which would in turn assist in increasing her appetite) and loratadine as required and to follow up with her GP in 48 hours, that is on Monday 25 November to ensure Dio's symptoms were improving.[125]

123. At inquest, Dr Arachchi adopted her statement as true and correct and sought to add some new information at the outset – that she had been employed in the Monash Paediatric Emergency Department for the past two years; that prior to reviewing Dio she had reviewed the earlier photos of the rash and by comparison noticed improvement in the rash; and that at some stage, Dio moved from one position in the room to another and was standing looking at her while drinking from a water bottle and she assumed that Dio had used the bed as support to walk there.[126]

124. Dr Arachchi was asked to explain the model of care provided by the RRC and did so in terms consistent with Dr Pappas' explanation.[127] As was her evidence about the rapid progression of Group A streptococcus infections in children.

125. Mr Wallis took her to the notes she made in the medical record during Dio's RRC appointment and to Dr Pappas' notes which she agreed she had reviewed prior to seeing Dio.[128] She denied that Dr Pappas' description *"facial urticaria, not an infective rash"*

[124] Ibid.
[125] Page 73 of the inquest brief. This is somewhat different from the consultation note at page 320 of the inquest brief which under Advice/Recommendation reads *"Continue claratyne PRN and also panadol as required. GP review on Monday. Return to ED if concerns/any deterioration."*
[126] Transcript page 627.
[127] Transcript page 628-630.
[128] Transcript pages 628 (Dr Arachchi's notes, pages 319-320 of the inquest brief) and 631 (Dr Pappas' notes, pages 321-322 of the inquest brief).

would have influenced her decision-making. Dr Arachchi stated that her usual practice is to make her own judgement of a patient every time and said she always looks at the patient in front of her taking previous reviews into consideration, taking her own history and conducting her own examination.[129]

126. Dr Arachchi gave a detailed description of her examination of the rash, noting in particular that she palpated the rash multiple times eliciting no crying or pain response in Dio. She asked Ms Jowett for any photos of the rash to assess its progression and how it may have changed over time. She stated that the rash was mostly distributed over Dio's cheeks, did not observe any swelling over the eye which was a feature at the latest ED presentation and felt the rash on her forehead was beginning to disappear. Dr Arachchi wrote down that the rash was *"blanching"*.[130]

127. When asked by Mr Wallis whether the rash was well demarcated, Dr Arachchi's initial response was she could not recall exactly, then she distinguished the rash from erysipelas and cellulitis, later still she stated the rash was not particularly well demarcated in comparison (presumably to erysipelas and cellulitis).[131] When asked if she gave specific consideration to whether or not there may be a bacterial cause to Dio's presentation, Dr Arachchi said she always considers a bacterial cause when a child has a fever, however, she was familiar with cellulitis and erysipelas and Dio's rash did not look like either.[132]

128. Dr Arachchi expanded on her understanding of erysipelas as follows – *"erysipelas is not always on the face; you can see it on any part of the body; 80% of the time it is on other parts of the body and it's not so common on the face; it's a superficial skin infection that involves the upper layer of the dermis and if you see it, you treat it, you don't wait in paediatrics, the only way to know is to do a skin biopsy and no one is going to do a skin biopsy to find out which layer of skin is involved."*[133]

129. At the time of her RRC consultation with Dio, Dr Arachchi was not aware of the CCOPMM recommendation that a child re-presenting on three occasions in the course of a single illness should be admitted to hospital and investigated. Nevertheless, she agreed that

[129] Transcript page 632.
[130] Transcript pages 633-636.
[131] Transcript pages 635-636.
[132] Transcript page 636. See also transcript page 658.
[133] Transcript page 637.

it is relevant if a child re-presents in the course of a single illness and is a factor that would support at a closer examination of the child.[134]

130. When asked by Mr Wallis if she considered admitting Dio, Dr Arachchi did not answer the question directly but implied that she did not consider Dio needed to be admitted. In later questioning, both in relation to Dio's need for admission and investigations, Dr Arachchi agreed that she would not have hesitated to admit her, but it was her clinical assessment at the time that Dio was not significantly unwell, and her presentation was consistent with a resolving viral illness that did not require either admission or investigations. [135]

131. According to Dr Arachchi's calculations, her review of Dio occurred on days 4-5 of her febrile illness and, while she still had a fever, Dio was showing improvement in terms of fewer or no loose stools, less swelling around her eye and an improving rash based on the photos. When the lack of any documented improvement in Dio's eye or her rash was put to her, Dr Arachchi maintained that she did see these improvements in Dio at the time and the photos did not accurately depict what she saw at the time. When pressed, Dr Arachchi agreed that probably should have documented those improvements.[136]

132. Dr Arachchi was clearly familiar with the febrile child guideline and invoked it and Dio's clinical improvement (as she saw it) in support of her management without further investigations – *"...you have to take into consideration the history of the presenting complaint which at the time was the loose stools that had improved…When I saw her the rash had improved, her eye was not swollen, the swelling had reduce [sic] and she had red tonsils…Now in paediatric medicine when you have a clinically obvious focus of infection and you follow that Febrile child guideline, investigation and management are as clinically indicated. She may have had four days of fever but it's still in keeping with a viral infection…".*[137]

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[134] Transcript page 639.

[135] Transcript page 640-643. See also transcript page 659-660 – *"So I guess what I'm trying to say is that having had medical experience that I had at the time, I can pick the children that are seriously unwell and I have done that over the course of my career many times. I would not hesitate to send a child back to the Emergency Department and I have done that before in that clinic many times. I have walked children over to the Emergency Department, I have called the nurse to come and take the kid, I have done that and I would do that. I have taken kids to resus."*

[136] Transcript pages 640-645, 656, 669-670.

[137] Transcript page 649, 656. Dr Arachchi assumes Dio had *"no unwell features"* whereas Dio (arguably) had a fever of >/= 5 days which is one of the features suggestive of an unwell child in the febrile child guideline. See pages 166 page 169 of the inquest brief.

133. Dr Arachchi did not seem to attach much significance to a fever of five days duration, saying that many viral illnesses can last for over a week. When asked if there was a point in time when even if the clinical picture is substantially unaltered, ongoing fever, in and of itself suggests a need for investigations, she suggested that by at least day seven you would need to consider investigations and have another look at the child.[138] This evidence was somewhat at odds with her decision to refer Ms Jowett to her GP for follow-up on about day seven of Dio's illness without much in the way of guidance to him about her expected clinical course and features that would be of concern and warrant investigations or escalation. This is probably explicable by reference to her underlying belief and expectation that Dio was improving and would continue to do so.[139]

134. On behalf of the family, Ms Fitzgerald challenged Dr Arachchi about the number of signs of improvements mentioned in her evidence which were not mentioned in her consultation notes (as had Mr Wallis before her). In particular, her evidence that she recalled Dio moving about the room (rather than walking as such), observing Dio drinking water as opposed to obtaining a history from her mother and Dio's improved clinical presentation. Dr Arachchi stood her ground and denied the process of (unconscious) reconstruction of evidence when it was squarely put to her by Ms Fitzgerald.[140]

135. Despite the passage of time, Dr Arachchi was palpably distressed by Dio's death and the prospect that her management of Dio would be scrutinised and it was difficult to assess her credit as a witness. In so saying, I do not imply any criticism, nor should any be inferred. This was a very human response to the situation she found herself in. It is apparent that Dr Arachchi was a very caring doctor who took pride in her professional competence and managed to establish good rapport with Ms Jowett during their one encounter.[141]

136. Given Dr Arachchi learnt of Dio's death a few months later, accepting how much the death affected her,[142] noting the brevity of her consultation notes and the fulsome account of her management and rationale at inquest, I am satisfied that (unconscious) reconstruction has likely crept into her recollection as she has continued to ruminate over Dio's death.[143] The result is an account that is honestly given but based on an unreliable recollection.

[138] Transcript pages 660-661.
[139] Transcript page 662, 686.
[140] Transcript pages 669-674.
[141] Transcript page 667.
[142] Transcript pages 667 and especially 668.
[143] Transcript pages 675-676.

137. That said, I am satisfied that Dr Arachchi's clinical impression of Dio and other aspects of the consultation as documented in her consultation notes and the plan for review by the GP accurately represents her assessment of Dio's clinical presentation at that time.

Recommendations made in the Lachlan Black inquest and Monash Health's 2018 protocol regarding patients re-presenting to the ED within 72 hours.

138. Coroner Carlin's (as she then was) finding in the Lachlan Black inquest was delivered on 13 December 2017. Her third of three recommendations made pursuant to section 72(2) of the Act was -

> *"That Monash Health introduce a formal policy governing the care of patients who present to the Emergency Department within 72 hours of a previous presentation requiring that such patients be personally reviewed by an Emergency Department consultant as soon as possible and that there be a concerted re-evaluation of the working diagnosis. In the event that an Emergency Department consultant is not available, the patient should be managed by a senior registrar and reviewed by a second senior registrar."*

139. Dr West, Director of Paediatric Emergency Medicine at Monash Health produced version of the guideline responsive to the recommendation and applicable at the time of Dio's illness as an attachment to his statement.[144] It is to be found in the Monash Health Emergency Department Staff Orientation Manual and reads as follows -

> *"Clause 3.5.10 Representing Patients*
>
> *Patients representing within 72 hours, must be reviewed and managed by a consultant. When the consultant is unavailable (0000hrs-0800hrs) they are to be reviewed and managed by a senior emergency registrar and a second senior registrar from the most appropriate inpatient team. For example a paediatric patient should be reviewed by the paediatric inpatient team."*
>
> *Patients representing to the Emergency Department within 7 days should be discussed with a senior doctor."*

140. The first section applied to Dio's second ED presentation which was about 24 hours after her first presentation. Consistent with the recommendation of Coroner Carlin, it is expressed in language that requires compliance and according to Dr West's evidence at inquest was intended to be mandatory.[145]

[144] Page 125 of the inquest brief.
[145] Transcript pages 725-726.

141. Dr West conceded in his statement that the guideline was not followed in Dio's case, however, with the rider that a clinically reasonable alternative plan was in place for Dio to be reviewed at the RRC within hours of her discharge. He also noted Dio had already been seen by a consultant paediatrician (Dr Pappas) the previous day.[146] While I understand the context within which Dr West expressed added this rider, it undermines the systemic improvement sought to be made by the guideline, in keeping with the thrust of the coronial recommendation.

142. As mentioned above, Dr Wijeyesakere was familiar with this requirement at the time of her review of Dio in the ED but did not understand it to place a mandatory obligation to involve another senior clinician in her review and management.

143. It is worth noting that to the extent that the recommendation and guideline are founded on the predictive value of parental concern about their child as evidenced by representation, Ms Jowett's evident concerns about Dio were not heeded. The fact that Ms Jowett took Dio to the ED despite already having an RRC appointment should have led Dr Wijeyesakere exercising such discretion as she thought she had under the guideline by involving a consultant or the paediatric inpatient senior registrar in Dio's review and management.

144. It is heartening that other Monash Health clinicians confirmed their understanding of the guideline as mandatory when they gave evidence.[147] They were also unanimous in their understanding that a representing patient in this guideline refers to a patient who presents to the ED not one who presents to the RRC or any outpatient or other scheduled appointment.

145. An updated version of the, now styled a *"procedure"*,[148] was also provided by Dr West.[149] Under the heading *"Representation"* it provides (relevantly) as follows –

- *Patients representing (unplanned) to the Emergency Department within 72 hours must be reviewed in person by a consultant*

- *When a consultant is unavailable, the patient is to be reviewed by a senior emergency registrar and a second registrar from the most appropriate inpatient*

[146] Pages 101-102 of the inquest brief.
[147] Dr van Hest at transcript pages 235-236; Dr Pappas at page 303; Dr Arachchi at page 665.
[148] See my comments and recommendations below regarding "*naming conventions*".
[149] Pages 970-971 of the inquest brief.

team. For example, a paediatric patient would be reviewed by the inpatient paediatric registrar…

- *Patients presenting to the Emergency Department within 7 days must be discussed with a senior doctor.*

- *A child presenting to the ED with the same febrile illness for the second time must have the reasons for performing or not performing investigations documented in the medical record*

- ***Three visits for the same febrile illness***

    - *A child presenting to the ED for the third time for the same febrile illness must be reviewed by a senior doctor irrespective of duration of illness.*

- *Strong consideration must be given to investigation and/or admission of the patient to allow further evaluation of their condition.*

- *Any patient discharged home from the ED must be instructed to "Please return to the ED if you are worried or feel that your child has not improved."*

<u>Should Dio have been admitted</u> at her third presentation to Monash Health in accordance with 2017 CCOPMM recommendation 8?

146. Referred to as the *"CCOPMM recommendation"*, the status of the recommendation and its interpretation was one of the issues canvassed during this inquest. In 2017, the Consultative Council on Obstetric and Paediatric Mortality and Morbidity released a report entitled *"Victoria's Mothers, Babies and Children"* with recommendations, including recommendation 8, expressed in the following terms – *"An infant, child or adolescent who presents to hospital on three occasions during a single acute illness is admitted and further investigations undertaken.*[150]

147. As it became apparent at inquest that there was some confusion about what the word *"presents"* means in this context, clarification was sought from CCOPMM and duly provided. According to Professor Mark Umstad (**Prof Umstad**), the Chair of CCOPMM,

[150] See Exhibit I, Part A and Part B, respectively correspondence from the court to Professor Mark Umstad AM, Chair of CCOPMM dated 30 August 2023 and his reply dated 22 September 2023.

the word *"presents"* does not include planned presentations (or appointments). The word *"hospital"* in this context includes presentations to a clinic operated by and within a hospital such as the RRC but would not include planned presentations either to the ED or the RRC. This suggests to me that hospital should probably be read as *"health service"* in this context. The tenor of Prof Umstad's response also suggests that the recommendations are based on the predictive value of parental concerns in terms of their children's illness.

148. As noted by Dr van Hest in evidence, this is a *"recommendation"* and not a mandatory requirement but carries weight as it is based on a very large body of work relevant to the care of children across Victoria historically. Referring to the Lachlan Black inquest and the large body of work undertaken by CCOPMM, Dr van Hest testified that "*presentation to multiple health services or multiple presentation to one health services is a common feature in cases which have had serious clinical outcomes"* including cases where sepsis has gone unidentified until too late.[151]

149. Any controversy earlier in the inquest about what recommendation was meant to achieve fell away with Prof Umstad's clarification.[152] As it was intended to operate at the time, recommendation 8 was not applicable to any of Dio's presentations to Monash Health.

Presentation to general practitioner Dr Leber on 26 and 28 November 2019

150. As at the date of the inquest, Dr Leber was a recently retired general practitioner who had been in medical practice for well over 39 years and in general practice for over 30 years. He saw Dio at the Cheltenham Medical Centre on 26 and 28 November. Dr Leber provided a statement and gave evidence at inquest.[153]

151. Dr Leber wrote his statement relying on his clinical notes made in respect of each consultation and the Monash Health documents provided to him.[154] On 26 November, Dio presented with fever, facial redness and diarrhoea. Her tympanic temperature was 40.6°C

[151] Transcript page 239. Dr Pappas was not aware of this recommendation, thought it applied to unplanned representations and, in any event, agreed that representation was a sign of parental concern – transcript pages 306-307. Dr Wijeyesakere was aware of the CCOPMM recommendation; thought it only applied to unplanned representations and would have considered the guideline if she had seen Dio on her third unplanned representation bout would only have admitted her if there was a need in her clinical opinion – transcript pages 570-571.

[152] Prof Umstad advised that following feedback from practitioners and health services (unrelated to Dio's case) an updated recommendation was planned for the 2021 Annual Report (for release in Sept/Oct 2023) – See Exhibit I, Part B, page 2. I note that the updated recommendation includes the following – 'Repeat presentation to any health service during the same acute illness is a red flag…and may indicate that the child is deteriorating or developing complications (for example, secondary bacterial infection with viral illness).'

[153] Dr Leber's statement dated 20 September 2020 is at pages 58-68 of the inquest brief, including copies of discharge summaries and other documents from Monash Health and his evidence is at pages 435-490, 495-524.

[154] This does not appear to include any notes from Dr Pappas' RRC review on 22 November.

and she did not appear drowsy. Ms Jowett had been giving Dio her antipyretic medication in her milk bottle but as she was not drinking all her milk, she was not receiving an adequate dose. Dr Leber called Monash Health and was told that Rhinovirus/Enterovirus[155] were detected the swab taken from Dio.[156]

152. Dr Leber advised Ms Jowett to give Dio paracetamol four times a day via syringe as well as ibuprofen if paracetamol alone did not control the fever. He advised her to take Dio to the ED or bring her back the next day if she was not better and conducted no further investigations. He gave Ms Jowett three fact sheets from the RCH – one on fever in children, one on giving paracetamol and ibuprofen, and one on gastroenteritis.[157]

153. Dr Leber stated that on 28 November, Dio presented with similar symptoms. Her mother said she was drinking adequate fluids, and her tympanic temperature was 38.2℃ and the rash on her face was better than on 26 November. Dio was alert and not drowsy. Taking the discharge summaries and the swab result into account, Dr Leber assumed that Dio's fever was caused by a viral infection.[158]

154. Dr Leber stated that his management of Dio was influenced by knowing that she had already been seen at MMC on three occasions by three different doctors (in fact it was four occasions and five doctors) and had been diagnosed with a viral infection. He also reiterated this at inquest and knew that at the RRC, patients were reviewed by consultant paediatricians.[159] He stated he was also influenced by detection of Enterovirus/Rhinovirus RNA in Dio and reiterated that at inquest.[160]

155. At inquest, Dr Leber testified that he was unaware of the RCH febrile child guideline when he was reviewing Dio in November 2019 but had since read the guideline and was taken through it by Mr Cash.[161] He later qualified this evidence by saying that he was sure that in 2019 he was looking for the things that were in the guideline because he knew them to be signs of a serious illness and knew what to look for in an unwell child.[162]

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[155] Enterovirus and rhinovirus are both RNA viruses in the same family (Ricornaviridae) but are distinct entities. Rhinoviruses primarily cause the common cold and asthma exacerbations by infecting the nose and upper respiratory tract. Enteroviruses, on the other hand, are more diverse, causing a broad range of illnesses from mild respiratory symptoms to serious conditions like meningitis and hand, foot, and mouth disease.
[156] Page 58 of the inquest brief.
[157] Page 59 of the inquest brief.
[158] Ibid.
[159] Transcript page 440-445, 449.
[160] Transcript pages 445-447.
[161] Transcript page 451.
[162] Transcript page 505 – to paraphrase.

156. As regard the rash, Dr Leber noted facial redness that did not look like cellulitis which he described as a common condition that he had seen many times before. In combination with the Monash Health documents, the caused him to think the most likely diagnosis was a viral infection with urticaria.

157. When he first saw Dio, Dr Leber thought she was at about day seven of a febrile illness. His overall impression was although she still had a fever, her rash was improving which he considered a good sign because if it had been a bacterial infection he would not have expected it to improve. That was why he thought that they should wait and see how she went over the next 24 hours and advised Ms Jowett to return to the ED if Dio was not better by tomorrow. [163]

158. At Dio's review on 28 November, Dr Leber noted a lower tympanic temperature of 38.3°C, two to three hours after paracetamol, that Dio was alert with a facial rash that was better than two days ago and had mild swelling of the left thenar eminence and redness[164] which did not look like cellulitis.[165] His evidence at inquest was that this was an improvement overall. Dr Leber was told that Dio was present during her brother's appointment with Dr Tilders who advised that she should be reviewed as she was still unwell. He was reassured by this as he inferred that if Dr Tilders thought there was something serious, she would have sent Dio straight to hospital.[166]

159. Dr Leber denied that Ms Jowett gave him a history of Dio being worse since her last visit, crying a lot and not wanting to crawl and maintained that Dio was alert and not sleeping during this consultation.[167] When taken by Mr Cash to Ms Jowett's evidence of Dio's deterioration later on 28 November, his evidence was that her description was not consistent with Dio's presentation that day.[168]

160. A number of the criticisms of his management made by the general practitioners in the expert panel were put to De Leber who maintained that he was not given a history of Dio being worse since the last visit or of any concerning features, and he repeatedly fell back on the fact that he would have noted anything he was told or observed during the consultation.[169] He stated that in general practice there is limited time and his practice is to

[163] Transcript pages 452-454.
[164] Transcript pages 463-464.
[165] Page 67 of the inquest brief and transcript pages 463-4.
[166] Transcript page 460.
[167] Transcript pages 462, 465-466.
[168] Transcript pages 467-468.
[169] Transcript pages 468-477.

document all positive findings, rather than a long list of negative findings.[170] In this context, Dr Leber agreed that a positive finding was not a good finding but a clinically significant one.[171]

161. When questioned by Mr Wallis about the duration of Dio's fever, Dr Leber agreed that it was seven days on his first consultation and nine days on the second, however, he still took comfort from what he saw an improvement in her fever. In so doing, Dr Leber did not seem to account for the effective delivery of medication via syringe as he had suggested and maintained that her fever was improving. Nor did he seem to attach any significance to the febrile child guideline and the possibility that Dio was an unwell child by reference to that guideline.[172]

162. When questioned by Ms Fitzgerald, Dr Leber agreed that he had little recall of the consultations which were four years earlier and relied on the notes he made of the consultations at the time and their accuracy. He maintained that he would always record any significant history or significant examination findings but had no actual recollection of the discussions with Ms Jowett or *"not a good recall"*.[173]

163. Ms Fitzgerald questioned Dr Leber about the extent of his examination of Dio. He agreed that at neither consultation did he take a heart rate, respiratory rate, capillary refill time or blood pressure. However, he did testify that he did not observe any neurological abnormalities. He did not assess Dio for neck stiffness but would have expected Ms Jowett to volunteer if she had observed neck stiffness. He said that Dio did not react to the bright lights in his consulting room and considered this was an assessment. According to Dr Leber, GP practice in Australia is different to hospital practice in that blood pressure would not be measured in a three-year old child by any GP and when breathing is assessed it is by observation not using a stopwatch. Dr Leber agreed that he had relied on the various readings taken at MMC even though they were taken at least three days earlier.[174]

164. Dr Leber agreed that by the time Dio came to see him on 26 November she was on day eight of a febrile illness and still had a fever, facial rash and diarrhoea. On that day, Dr Leber received confirmation of Enterovirus/Rhinovirus in Dio's swab. He agreed that these are common viruses that infect children, and such infections would be expected to resolve

[170] Transcript pages 479-480.
[171] Transcript page 502.
[172] Transcript paged 481-487.
[173] Transcript pages 495-496.
[174] Transcript pages 505-507.

within a week *"in the majority of cases but not one hundred per cent."* Dr Leber had no good answer to the criticism that he should have sent Dio to hospital that day except to repeat that because Dio's rash was improving, he told Ms Jowett to go to hospital if Dio was not better in 24 hours.[175]

The first expert panel (specialists) – Dr Julia Clark, A/Prof Bernard Hudson, Prof Alison Keeson, A/Prof Luke Lawton, Dr Christine Sanderson, and Dr Adam West

165. A range of expert report were obtained by the parties and by the court pertaining to the clinical management and care provided to Dio and the inter-related question of the nature of her illness between 19 and 29 November. Even allowing for differences in the questions each expert was asked to address in the first instance, there was a broad range of opinions on some issues, some of which appeared irreconcilable. This disparity of views suggested that there would be utility in hearing from the experts concurrently.

166. This is an evolving practice in this jurisdiction. In this case, the experts were each sworn in or affirmed before being given instructions by me about the process and what was expected of them, with particular focus on the standard of proof and the desirability of a consensus view being reached, if possible. They were also told that failing unanimity, a majority view or even individual answers were acceptable, if they were unable to agree.

167. The panel was provided with a list of questions which had been settled with consideration of input from the parties. The experts then left the courtroom and were sequestered and given time and privacy to consider the questions among themselves before returning to the courtroom. Assisting Counsel, Mr Wallis then asked the questions of the panel seriatim.

168. The experts comprising the panel were as follows:

- Dr Christine Sanderson (**Dr Sanderson**), Consultant General Paediatrician, report dated 7 November 2022.[176]
- Dr Adam West (**Dr West**), Director of Paediatric Emergency Medicine, Monash Health, supplementary statement dated 12 December 2022.[177]

[175] Transcript pages 509-512.
[176] At pages 954-965 of the inquest brief including a briefing note and questions from the court.
[177] Pages 966-971 of the inquest brief, noting that Dr West did not participate in the panel convened on 23 August 2023 which was concerned with appraisal of the clinical management and care provided by Monash Health.

- Professor Alison Kesson (**Prof Kesson**), Virologist, Microbiologist and Infectious Diseases Physician, reports dated 24 February 2022, 24 March 2023 and 6 April 2023.[178]

- Associated Professor Luke Lawton (**A/Prof Lawton**), Emergency Physician, dated 14 September 2021.[179]

- Dr Julia Clark (**Dr Clark**), Paediatric Infectious Diseases Specialist dated 18 July 2023.[180]

- Associate Professor Bernard Hudson (**A/Prof Hudson**), Infectious Diseases Specialist, dated 24 July 2023.[181]

169. The first question posed to the panel concerned the medical care provided to Dio at her first presentation to the MMC ED on 21/22 November. The panel considered the working diagnosis of a viral infection was reasonable given the information available at the time noting that there was a scheduled follow-up review after this presentation.[182]

170. A/Prof Lawton was somewhat of an outlier regarding the extent of investigations and vital signs that were indicated, struggled to accept the rash was viral based on photographs but ultimately acknowledged there was a spectrum of opinion and considered that with follow-up scheduled to occur the following morning, the medical care was reasonable.[183] Dr Sanderson noted that some people would do blood tests at the first presentation but recognised that there was some leeway. A/Prof Hudson thought a dermatology opinion should have been obtained but could have been sought at the RRC the next day.[184]

171. The panel also gave evidence that fever and rash in a child is a very common presentation and that differential diagnoses should have been documented was well as the rationale for the various possibilities.[185]

172. The second question posed to the panel concerned the medical care provided to Dio at her second presentation to MMC and first to the RRC on 22 November. While the panel

[178] At pages 972-972, 974-976, 977-1046 respectively and letter of instruction from HWL Ebsworth and notes of conference at pages 1046A-N and 1046O-Q respectively.
[179] Pages 1070-1145 including letter of instruction from Maurice Blackburn Lawyers.
[180] Pages 1153-1166 including a briefing note and questions from the court.
[181] Pages 1167-1369 including letter of instruction from Maurice Blacknurn Lawyers.
[182] Transcript page 356.
[183] Transcript page 360.
[184] Transcript page 352.
[185] Transcript pages 352, 360.

thought that there should have been more vital signs taken to assess whether the trend had worsened or improved, this was a rapid RRC within eight hours so they did not think there had sufficient change in the patient.[186] Again the panel thought differential diagnoses should have been documented with a rationale supporting each but that it was still a case of *"viral versus bacterial infection"*. There was also a consensus that that Dio was not yet appropriate for entry into a sepsis pathway at this juncture.[187]

173. A/Prof Lawton repeated his concern that a full set of vital signs was not documented and noted that the rash appeared to have worsened (as depicted in the photos).[188]

174. Dr Clark summarised the first two episodes of care and noted that there was no unanimous view as there were discrepancies between the experts, some feeling the medical care was reasonable and others thinking more observations should have been documented.[189]

175. The third question concerned the medical care provided to Dio at her third presentation to MMC and second presentation to the ED on 22/23 November.

176. There was greater unanimity in relation to this presentation. The key features of the panel's evidence regarding this presentation were that vital signs should have been performed hourly and so were not performed with adequate frequency;[190] being the third presentation on the fifth day of fever the differential diagnoses were bacterial versus viral; and Dio met the criteria for entry into a sepsis pathway and should have been admitted, investigated and treated according to the results of such investigations.[191]

177. Both Dr Sanderson and A/Prof Lawton attached significant weight to the clear parental concerns indicated by a third presentation (in less than two days) which supported admission in the view of Dr Sanderson and warranted consideration of sepsis and treatment with antibiotics in the case of the latter.[192] A/Prof Lawton was also of the view that in and of itself this presentation warranted admission even if the Victorian specific CCOPMM recommendation was not in existence.[193]

[186] Transcript page 363.
[187] Transcript page 369.
[188] Ibid.
[189] Transcript pages 369, 371.
[190] Transcript page 373.
[191] Transcript pages 373-374.
[192] Transcript page 374 and 376.
[193] Transcript page 376.

178. The fourth question posed to the panel concerned the medical care provided to Dio at her fourth presentation to MMC and second to the RRC on 23 November.

179. Again, this was a question about which the expert panel were able to reach a consensus view. The evidence of the expert panel was that the clinical assessment was not adequate although they did not consider that a viral diagnosis was an unreasonable diagnosis. Prof Kesson noted that by that time there had been five days consecutive days of fever with things not settling down and that in such circumstances there is a need to start looking a bit more broadly.[194]

180. The differential diagnoses were again bacterial versus viral and the rationale should have been documented. At this juncture, the panel felt Dio did meet the criteria for entrance to the sepsis pathway and should have been admitted and investigated and potentially started on antibiotic therapy depending on the results of such investigations.

181. The panel did not consider it was a reasonable management plan to discharge Dio to a GP without more.

The final question posed was *"Were Dio's initial symptoms those of a viral or a bacterial illness? If they were viral, did they lead to the development of a bacterial illness in the form of Group A Streptococcus or was the established Streptococcus unrelated to any such viral illness?"*

182. It is the evidence of the infectious diseases specialists that carries the most weight in relation to this question. That is not to suggest that a number of other expert witnesses and clinicians who testified did not give evidence along similar lines to the infectious diseases experts, in particular about the likelihood of the differentials of viral versus bacterial infection and the expected clinical trajectory of Group A Streptococcus in children.

183. Dr Clark's evidence was that the course of invasive Group A Streptococcus is such that it can lead to fever and systemic issues in rapid progression within one to three days in terms of its impact on a patient.[195] Based on what we know about Dio's clinical picture over time, Dr Clark was of the view that the early disease process and early presentations were clinically suggestive of a viral infection whereas the later presentations going

[194] Transcript page 377.
[195] Transcript page 933.

backwards from the time of death for two to three days would be indicative of Group A Streptococcus.[196]

184. Prof Kesson's evidence was to the same effect as Dr Clark's in that she thought the first presentation was a viral infection and did not think that the viral infection was going to lead to Group A Streptocccus.

185. Prof Hudson expressed the view that another "*possibility"* was that Dio had a skin and soft tissue infection which is rarely bacteraemic that persisted over a period of time and eventually became bacteraemic. He expressed the view that Dio's rash was erysipelas that had gone untreated in Dio, but which usually responds to five to seven days of antibiotics.

The second expert panel (general practitioners) – Dr Harold Overton, Dr Peter Hay, and Dr Elizabeth Chambers

186. The same process as is set out in paragraphs 163 and 164 above was undertaken in relation to this panel, the members of which were:

- Dr Peter Hay (**Dr Hay**), General Practitioner, report dated 1 May 2023.[197]
- Dr Peter Overton (**Dr Overton**), General Practitioner, report dated 7 April 2023.[198]
- Dr Dianne Chambers (**Dr Chambers**), General Practitioner, report dated 29 August 2022.[199]

187. There was unanimity amongst the experts that Dr Leber's assessment of Dio on 26 November was insufficient and commented on some confounding factors. Dr Hay noted in his report that the influence that a positive viral diagnosis can make on the ability to diagnose a secondary bacterial infection. Dr Chambers felt a more comprehensive examination of Dio should have been undertaken (pulse, oxygen saturations and capillary refill). Dr Overton stated context was important in terms of the four previous hospital presentations being relevant. Nevertheless, they were unanimous in their opinion that a fever of seven days duration required consideration/exclusion of the differential diagnosis of a bacterial infection. What was required was referral to hospital for investigations as they were considered impractical in a GP clinic.[200]

[196] Transcript page 934.
[197] Pages 1047-1057 including a briefing note, questions from the court and his curriculum vitae.
[198] Pages 1064-1069 including his curriculum vitae.
[199] Pages 1146-1152F including letter of instruction from Maurice Blackburn Lawyers.
[200] 527-529.

188. The panel agreed that Dr Leber's assessment on 28 November was insufficient for the same reasons and that by day nine of a febrile illness the working diagnosis of a viral infection was not reasonable, and a bacterial infection needed to be excluded, and Dio should have been referred to a hospital for investigations.[201] In this regard the panel referred to both the febrile child and the sepsis guidelines.[202]

189. The panel offered the opinion that Dio's death was preventable but deferred to the infectious diseases experts on the issue. Dr Chambers expressed the opinion that Dio's death was probably preventable on 26 November although uncertain about the 28 November.[203]

190. Dr Hay opined that in circumstances where Dio had been to the ED four times, the hospital should have provided clearer guidance to Dr Leber about what to do if her fever persisted and this was not provided.[204] Dr Hay's was also of the opinion that Dio's illness was most likely due to a viral infection in the first few days and then there was a need to consider what an ongoing fever signified as the spectre of a viral illness recedes and the risk of a bacterial infections increases. He described this as a nuanced presentation and thought that this nuance was not transferred from the hospital to the Dr Leber.[205]

STANDARD OF PROOF

191. The standard of proof for coronial findings of fact is the civil standard of proof on the balance of probabilities, having regard to the *"Briginshaw sliding scale"*.[206] When finding facts, a coroner has to reach a comfortable or reasonable satisfaction having regard to all of the available evidence relevant to the questions in issue in the investigation.[207] When considering whether that level of satisfaction has been achieved, regard must be had to the seriousness of the allegation; the inherent likelihood or unlikelihood of an occurrence of fact, and; the gravity of the consequences flowing from a particular finding.[208]

192. This is particularly so with regard to adverse comments or findings about an individual in their professional capacity which should only be made when a coroner has reached a state

[201] Transcript page 530.
[202] Transcript pages 532-535.
[203] Transcript page 535
[204] Transcript page 538.
[205] Transcript page 554.
[206] *Briginshaw v Briginshaw (1938) 60 C.L.R. 336.*
[207] *Anderson v Blashki [1993]2 VR 89 at 96; Secretary to the Department of Health and Community Services v Gurvich [1995] 2 VR 69 at 73;*
[208] *Briginshaw v Briginshaw, op cit, at 362.*

of comfortable or reasonable satisfaction based on the evidence that they departed materially from the standards of their profession and, in so doing, caused or contributed to the death.[209]

193. It is axiomatic that the materiality of any departure from applicable standards must be assessed without the benefit of hindsight, only on the basis of what was known or should reasonably have been known at the time, and not from the privileged position of hindsight. Patterns or trajectories that may become apparent subsequently or may even be obvious once the tragic outcome is known, are to be eschewed in favour of a fair assessment made from the perspective of the individual at the material time.

FINDINGS AND CONCLUSIONS

194. Applying the standard of proof to all the evidence before me, I find as follows:

a. The identity of the deceased is Dio Katiana Miranda Kemp, born on 20 June 2016, aged 3 years.

b. Dio died at Monash Medical Centre, 246 Clayton Road, Clayton, Victoria, on 29 November 2019.

c. The cause of Dio's death is Streptococcus pyogenes septicaemia.

d. The evidence of the various clinicians and, in particular, the evidence of the expert panel concerning the expected trajectory of Group A Streptococcus infection in children, supports a finding that Dio contracted the infection within three days at the outside of her death in the early hours of 29 November.

e. The evidence supports a finding that Dio's initial febrile illness with its associated symptoms of diarrhoea and rash was caused by a viral infection and that on the four occasions when she presented to the MMC ED and RRC between 21 and 23 November it was this viral illness that was the cause of her various symptoms.

f. The evidence supports a finding that Dio's rash was not erysipelas.

[209] *Ibid.*

g. Accordingly, there was no want of clinical management and care on the part of the clinicians involved in Dio's care on each of those four presentations that caused or contributed to her death.

h. The evidence supports a finding that the clinical management and care provided to Dio by Dr Martin and Dr van Hest in the MMC ED on 21/22 November was reasonable by current standards.

i. The evidence supports a finding that the clinical management and care provided to Dio by Dr Pappas in the MMC RRC on 22 November was reasonable by current standards.

j. The evidence supports a finding that the clinical management and care provided to Dio by Dr Wijeyesakere in the MMC ED on 22/23 November was not reasonable by current standards in that she failed to consider the possibility of a bacterial infection; failed to comply with the Monash Health guideline regarding re-presenting patients; and failed to recognise that Ms Jowett's re-presentation to the ED despite having a RRC appointment indicated a level of parental concern requiring escalation of Dio's management, whether by way of closer monitoring/more frequent observations, investigations, or otherwise.

k. The evidence supports a finding that the clinical management and care provided to Dio by Dr Arachchi in the RRC on 23 November was not reasonable by current standards in that she did not give due weight to Dio's overall clinical picture by day five of a febrile illness (even if on the cusp of five days) and her plan for review by a GP in two days' time was not safe enough without clear guidance being given to the GP about what to do if her fever or other symptoms persisted.

l. While the evidence supports a finding that Dio was *possibly* suffering from Group A Streptococcus infection on 26 November and certainly suffering from a Group A Streptococcus infection at some time on 28 November, the nature of such infection and its association with rapid deterioration in children, does not enable me to determine whether Dio was *probably* suffering palpable symptoms of the disease during the consultations with Dr Leber.

m. Thus, the evidence does not support a finding that there was any want of clinical management or care on the part of Dr Leber that caused or contributed to Dio's death.

n. However, the evidence does support a finding that the clinical management and care provided to Dio by Dr Leber on 26 November and 28 November was not reasonable by current standards. In particular, at both consultations, immediate referral to hospital for investigation and management was indicated.

o. While the evidence does not enable me to determine the precise time when the bacterial infection to which Dio succumbed would have been obvious or at least detectable by investigation, as a matter of logic, there must have been a time within the last three days of Dio's life when there was the potential to prevent her death. This would have required competent examination by a GP or hospital clinician, recognition of the possibility of a bacterial infection, urgent investigations and the timely initiation of treatment.

p. I wish to convey my sincere condolences to Dio's parents Miranda Jowett and Kepa Kemp and her brother Jayden for their loss, as well as to all extended family members and friends.

q. I also acknowledge the impact of Dio's death on the clinical staff of Monash Health who were involved in her clinical management and participated in the inquest, including those involved in attempts to resuscitate her on 29 November 2019.

COMMENTS

Pursuant to section 67(3) of the ***Coroners Act 2008***, I make the following comments on matters connected with the death, including matters relating to public health and safety or the administration of justice.

195. It is apparent that Monash Health has undertaken an internal review into Dio's death and made changes which largely obviate the need for coronial recommendations. They are commended for the improvements they have made which should improve patient safety.

196. However, to ensure that clinicians are not only aware of the existence of a particular guideline but also understand their obligation to comply and, where permissible, to document their rationale for any departures from mandated or even recommended clinical responses, I suggest that Monash Health considers the need to audit their guidelines, pathways, procedures and the like, to ensure a consistency in the application of naming conventions.

197. While the language used in the Monash Health guideline regarding representing patients as at November 2019 clearly indicated a mandatory obligation to me, consistent use of (say) *"protocol"* to connote a clinical response that is mandated and (say) *"guideline"* to connote general clinical advice or recommendations may assist clinicians to recognise and comply with their obligations and should form part of the orientation provided to new clinical staff and the ongoing education of all clinical staff.

PUBLICATION OF FINDING

Pursuant to section 73(1) of the Act, unless otherwise ordered by the coroner, the findings, comments and recommendations made following an inquest must be published on the internet in accordance with the rules. I make no such order.

DISTRIBUTION OF FINDING

I direct that a copy of this finding be provided to:

Miranda Jowett c/o Maurice Blackburn Lawyers

Kepa Kemp

Monash Health c/o Meridian Lawyers (formerly represented by HWL Ebsworth Lawyers)

Dr Danny Leber c/o Avant Law

Consultative Council on Obstetric and Paediatric Morbidity and Mortality

SaferCare Victoria

Commission for Children and Young People

Dr Christine Sanderson

Dr Julia Clarke

Dr Peter Hay

Senior Constable Scott Graham, Victoria Police, reporting member

Signature:

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Paresa Antoniadis Spanos
Deputy State Coroner
Date: 25 September 2025

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*NOTE: Under section 83 of the **Coroners Act 2008** ('the Act'), a person with sufficient interest in an investigation may appeal to the Trial Division of the Supreme Court against the findings of a coroner in respect of a death after an investigation. An appeal must be made within 6 months after the day on which the determination is made, unless the Supreme Court grants leave to appeal out of time under section 86 of the Act.*
