

Postnatal care provided to late pre-term baby

Background

1. The Health and Disability Commissioner (HDC) received a complaint from Ms A and Mr B about the care provided to their newborn son, Baby A, by Health New Zealand | Te Whatu Ora (Health NZ) Te Toka Tumai Auckland. Ms A and Mr B raised concerns about the care provided to Baby A in the postnatal ward at Auckland City Hospital during a four-day period. Sadly, Baby A died 50 hours after birth. This investigation is focused on aspects of Baby A's clinical care in the immediate postnatal period, including his feeding plan, the management of Baby A's vomiting and respiratory symptoms, and the monitoring and oversight of his condition more generally.

Opening remarks

2. I extend my sympathies to Baby A's whānau for their extremely tragic loss. In the circumstances, it is understandable that they should question the standard of postnatal care Baby A received.
3. In their complaint, Ms A and Mr B refer to aspects of their son Baby A's care that they feel were omitted. Ms A describes her son's care as feeling hurried and lacking empathy. Ms A says that she raised concerns about Baby A that she feels were either dismissed or not taken seriously by clinical staff at the time.
4. The complaint Ms A and Mr B submitted is extremely serious, and their concerns warrant careful consideration. It is a complex investigation for several reasons, not least because of Baby A's clinical presentation. The case is also made more difficult because there are many examples of differences in recollection and interpretation between Ms A and Mr B's complaint and the responses provided from Auckland City Hospital and the clinical staff involved in Baby A's care. This has made the investigation process challenging.
5. Baby A was a late pre-term baby. To evaluate the quality of care he received and determine whether it was of an appropriate standard has necessitated seeking input from suitably qualified independent experts with the skill, experience, and clinical knowledge to critique the circumstances of this case objectively. The contribution of paediatrician Dr Phillip Moore and registered nurse (RN) Rebecca Conway has been important to this investigation. Their advice has been considered carefully in the formulation of this decision.

Summary of events

6. Baby A was born via category two Caesarean section¹ at 11.05pm, following which Ms A and Baby A were transferred to the Maternal Complex Care Area (MCCA) at Auckland City

¹ During a Doppler ultrasound scan that afternoon, the results were abnormal and suggested a degree of placental insufficiency. Due to this and a history of neonatal death, a plan was made for a semi-urgent Caesarean section.

Hospital because of risks associated with Baby A being born late pre-term. Approximately 17 hours later, they were transferred to a postnatal ward for ongoing care.

7. There were several issues for Baby A postnatally. These included feeding problems and vomiting, an episode of respiratory distress thought to be due to nasal obstruction, a risk of neonatal abstinence syndrome (NAS),² and jaundice.
8. On the morning of Day 2, a nasogastric tube³ was inserted to deliver Baby A three-hourly feeds of 19mL.⁴ Ms A told HDC that Baby A began to vomit after every feed. The nursing observation notes state that Baby A had a small vomit 'but no concerns' at 6.45am. At 10.30am, Baby A was reviewed by consultant neonatologist Dr C, who noted normal observations, normal blood sugars, and low withdrawal⁵ scores. There is no mention in Dr C's notes of Baby A vomiting at that time.
9. At 11am (20 minutes after a 19mL tube feed) Baby A was noted to have vomited, and at 1pm (during a 15mL feed) he vomited again. Observation notes document another vomit at 3.30pm, and at 4.00pm Baby A was noted to have nasal flaring.⁶ Another 19mL tube feed was given before Baby A was transferred to the postnatal ward at 4.30pm.
10. During his first night on the postnatal ward, Baby A was noted to have problems with feeding. At 7.03pm another vomit was documented. At 10.30pm a Neonatal Intensive Care Unit (NICU) nurse practitioner (NNP) reviewed Baby A as a midwife had noticed tachypnoea⁷ and increased work of breathing. Baby A's respiratory rate and pulse were abnormal, but his oxygen saturations were within the normal range. The NNP noted that the nasogastric tube was positioned through the right nostril and that Baby A had mild to moderate indrawing of the chest and was making a grunting-like noise. The NNP aspirated air and milk from Baby A's stomach, after which his abdomen was noted to be soft and not distended. The nasogastric tube was removed, and both nostrils were suctioned, and it was noted that without the tube in place Baby A's breathing settled.
11. The NNP advised RN D, the nurse assigned to care for Baby A overnight, that an orogastric tube⁸ should be used instead of a nasogastric tube to help keep the nose free, and RN D inserted an orogastric tube. Baby A's condition remained stable overnight with no concerns noted.

² A condition that affects newborns who were exposed to opioids or addictive substances through the placenta during pregnancy.

³ A tube that carries food and medicine to the stomach through the nose.

⁴ Health NZ told HDC that this was usual practice for late pre-term babies who may require supplemental feeds to assist with the maintenance of blood-sugar levels.

⁵ Ms A was on opiates for the management of a pain disorder. Withdrawal scores are used to assess and manage NAS, which occurs when babies experience withdrawal symptoms after being exposed to opioids before birth. In late preterm babies, these scores are crucial for determining the need for medication and for guiding treatment and weaning.

⁶ When nostrils widen while breathing. Often it is a sign of difficulty breathing.

⁷ Abnormally rapid breathing.

⁸ A tube inserted through the mouth and into the stomach.

12. At 10.40am two days post birth, paediatric registrar Dr E examined Baby A. Dr E noted that Baby A had improved since the nasogastric tube had been replaced by the orogastric tube but that the orogastric tube had fallen out and Baby A's last feed at 9.30am had been oral (supply line⁹) only. Dr E documented a clear chest, normal work of breathing, normal heart sounds, a soft, non-distended abdomen, and normal urine and stool outputs. The notes indicate that the supply line feeding had been going well. Full feed volumes were given at 12.30pm, 3.30pm and 6.30pm. Wet nappies, frequent stools, and no vomits are recorded. Temperature and respiration rates were normal.
13. Earlier that same day, Baby A had been showing signs of jaundice,¹⁰ with a serum bilirubin¹¹ recording of 198 at 5.10pm.¹² Phototherapy was commenced in the incubator. Baby A was placed on a biliblanket¹³ and had one overhead phototherapy light.
14. There are clear discrepancies between the clinical records and Ms A's memory and recollection of certain episodes that occurred during that evening. Ms A told HDC that at around 6.30pm, following Baby A's feed, he had a 'big vomit' and so the midwife cleaned him up and raised him in the incubator. However, the clinical records do not record a vomit following the 6.30pm feed. Later that evening it was noted that Baby A was gagging, and his spilling was increasing.
15. A feeding assessment was performed to ensure that the supply line feeding was continuing to work well. However, it was noted that Baby A was clenching down on Ms A's finger without suckling, that milk was pooling in his mouth, and that his feeding was uncoordinated. RN D documented that the NNP advised that either there should be a return to use of a nasogastric tube or the orogastric tube should be replaced, and that the options should be discussed with Ms A.
16. Further clinical notes recorded by RN D state that she discussed these two options with Ms A, who was reluctant for staff to replace the nasogastric tube. The notes state that if a tube was to be inserted, Ms A preferred the orogastric tube rather than the nasogastric tube. RN D also documented that Ms A was given the option of having Baby A taken away for the tube insertion (as opposed to doing it in front of her) and that 'this was [the] option agreed on by [Ms A]'. The orogastric tube was replaced at 10.30pm for the next feeds due at 11pm and 12pm.
17. In contrast, Ms A said that when the feeding assessment was conducted, she felt as though the nurse was trying to convince her to stop feeding Baby A via supply line. Ms A said that she noticed that Baby A was feeding fine, and no differently from how he had been feeding all day long, but a nurse took Baby A out of the room and then returned him with a tube in

⁹ A supply line (also called a breast-feeding supplementer) is a device that allows a baby to receive extra milk at the breast rather than by bottle and teat.

¹⁰ A condition that causes the skin and whites of the eyes to turn yellow.

¹¹ A yellow chemical in red blood cells that builds up when the liver cannot process broken-down red blood cells.

¹² Normal bilirubin: total bilirubin 0.1 to 1.2mg/dL (1.71 to 20.5µmol/L).

¹³ A blanket used to help lower a baby's bilirubin levels.

his mouth. Ms A said that she had communicated earlier that she did not want the feeding tube because there was no medical reason for it.

18. Clinical notes written in retrospect state that Baby A was stirring at 11.20pm and was ready for a feed, and that he had normal observations and was clinically well. The orogastric tube position was checked, and a 23mL formula feed was tolerated well. Ms A was not woken for this feed. RN D then went on her break at 12.15am.
19. The facts surrounding RN D's break are also contested. RN D said that she handed over Baby A's care to two registered midwives (one was the Charge Midwife Coordinator). She told HDC that she specifically requested that Baby A be checked during her break. The clinical notes reflect that RN D handed over Baby A's care before her break, but there is no information about what was discussed.
20. Conversely, the midwifery staff reported that RN D told them that she was going for a break, but her patients (including Baby A) would not need anything while she was away. It seems they were not aware that RN D would be taking a one-hour break rather than a shorter 30-minute break. Health NZ told HDC that it is not normal practice for staff to take their two half-hour breaks back to back, and that conversations with staff indicated that RN D had not mentioned that she would be taking a one-hour break. Baby A was not checked again until RN D returned from her break between 1.15am and 1.30am.
21. Health NZ told HDC that if the midwives had been told that there were concerns about Baby A requiring more observations than hourly, they would have done so and considered the need for further escalation. However, Health NZ said that there was no evidence of such concerns being raised prior to RN D taking her break.
22. After returning from her break, RN D went to check on Baby A and found that he was pale and had vomited, and the orogastric tube was protruding from his mouth. RN D cleared Baby A's mouth and stimulated him, but he remained apnoeic¹⁴ and floppy, so he was removed from the incubator and carried to the resuscitation area. An emergency code was called at 1.48am. Baby A received 25 minutes of intense resuscitation, and he was reviewed by the senior medical officer. The team agreed to stop resuscitation at 2.16am.

Responses to provisional opinion

Ms A and Mr B

23. HDC made several attempts to obtain a response to the provisional report from Ms A and Mr B, but a substantive response was not received.

RN D

24. RN D was invited to comment on relevant sections of the provisional report but had no further comments to make.

¹⁴ Not breathing.

Health NZ

25. Health NZ told HDC: 'We would like to again acknowledge the loss and grief suffered by Baby A's parents and his wider whānau.'
26. Health NZ said that it disagrees that the midwives should have checked Baby A during RN D's one-hour break, as both staff had indicated independently that no concerns had been identified to them about Baby A, and it would not have been usual practice to have checked on Baby A in the circumstances. Health NZ told HDC that Baby A was assessed and reviewed by the paediatricians, an NNP, and by midwives caring for him as safe to be cared for in the postnatal ward. Health NZ stated that if any of those assessments had suggested that there was a need for close monitoring, Baby A would not have been cared for in the postnatal ward. Health NZ stated: 'Any baby needing that level of observation would have been escalated for paediatric care and transferred to NICU.'
27. Health NZ told HDC that it does not accept that Baby A should have had hourly checks. It said that the contemporaneous notes made by RN D on the day of Baby A's death 'identify no concerns about Baby A and note conversations had with Ms A'. Health NZ said that its Neonatal Jaundice, Late Preterm and Neonatal Abstinence policies require assessments prior to feeds or four hourly, and that it lets babies sleep between assessments so they wake ready for their next feed. Health NZ stated: 'Rounding is about popping in at regular intervals to see if mothers and babies need anything and if they are sleeping as expected, and are not due for assessments or feeds, they are not disturbed.'
28. Regarding intentional rounding, Health NZ told HDC that intentional rounding was not a concept in the unit [at the time] (despite it being implemented in 2023), and that one hour and 15 minutes (the approximate time Baby A was left unintended) would 'not be an unreasonable timeframe for intentional rounding'. Health NZ said that if RN D had concerns about Baby A's wellbeing, it would have expected her to check on him immediately prior to taking her break and immediately on her return. Health NZ stated: 'This would be normal practice on a postnatal ward and (for a normal length break) any requirement for more regular monitoring would have elicited escalation for higher level neonatal care.'
29. Health NZ told HDC that RN D was an experienced neonatal and maternity nurse and that being allocated a late pre-term baby was within her scope and expertise. It said that RN D had worked at Auckland Hospital for some years in the postnatal high-risk wards and she was a 'very experienced member' of the team who did not require oversight from a registered nurse. Health NZ said that 'supervision in this case would not be expected nor required', but that all staff have a responsibility to keep the senior midwives on shift informed of any concerns. It said that there is no evidence that the 'usual teamwork which happens on the ward, where staff check in on one another did not happen'.
30. Health NZ said that it has no evidence that there was a lack of teamwork and accountability on the ward, and that regarding the insertion of the orogastric tube, 'with the degree of experience Ms D had, she may have felt it fell well within her experience and clinical competency as an experienced neonatal nurse'. Health NZ said that it respects RN D's right to 'provide care within her scope and competency and to escalate when she needs senior support'.

Opinion

31. When reviewing the standard of care Baby A received from Health NZ, this investigation focused on several key issues. These are described in the introductory section of this report as Baby A's clinical care in the immediate postnatal period and encompass his feeding regimen, the management of his respiratory symptoms, and the oversight and monitoring of Baby A's condition more generally. As mentioned at the outset of this report, I have drawn on the expertise of an experienced consultant paediatrician with more than 30 years' experience in neonatal paediatrics, and a registered nurse with extensive expertise in child health specialty nursing practice to advise me on the care provided.

Dr Moore's findings

32. Dr Moore provided advice on the medical care Baby A received from Health NZ staff, including the actions of Dr E and Dr C. Dr Moore commented on the decision to place Baby A with his mother in the postnatal ward, as opposed to a neonatal unit; Baby A's feeding plan postnatally; and the clinical assessment and management plan followed, including the medical response to Baby A's vomiting and respiratory symptoms.
33. Dr Moore found no departures from the appropriate standard of care by any of these healthcare providers. Dr Moore stated that the placement of Baby A with his mother in the postnatal ward as opposed to the neonatal unit was consistent with accepted practice. I accept this advice. I also accept Dr Moore's position that Baby A was monitored appropriately by medical personnel and that each of his presenting clinical issues were managed.
34. In the context of accepting Dr Moore's view that an appropriate standard of care was provided, I am mindful of statements included in Dr Moore's advice that in my opinion are worthy of highlighting. These relate to Baby A's initial and subsequent feed volumes, which in Dr Moore's opinion were higher than necessary, and this may have contributed to the vomiting and feed intolerance to some extent. Dr Moore suggested that Baby A's vomiting symptom should have been assessed more formally, and Dr Moore was surprised that bacterial infection was not considered initially as a cause of the issues with vomiting.

RN Conway's findings

35. RN Conway reviewed the nursing care provided to Baby A by Health NZ staff and RN D, including the interface between RN D and her nursing colleagues relating to the break taken by RN D in the early hours of Day 4. RN Conway is critical of certain aspects of the care provided.

Consent for feeding regimen

36. Regarding the replacement of the orogastric tube on day two post birth, RN Conway advised that it would be considered normal practice to gain verbal parental consent prior to inserting a feeding tube. RN Conway said that if Ms A was reluctant to have Baby A's feeding tube inserted, then she would have expected RN D to have sought support from the registered nurse/midwife in charge of the shift and the medical team to help to explore all available options with Ms A. I have considered the advice provided to HDC by RN Conway and the information provided to HDC by Health NZ. I consider that there was a clear breakdown in communication between Ms A and clinical staff at Health NZ, which resulted in Ms A not

feeling appropriately informed about the requirement for a feeding tube or the options available to her. Ms A had a right to be fully informed.

Monitoring during meal break

37. In relation to the monitoring of Baby A during RN D's break in the early hours of Day 4, there are conflicting accounts about what was discussed during the handover. As previously referenced in this report, clinical notes reflect that RN D handed over Baby A's care before her break, but there is no information about what was discussed. The staff involved recall RN D advising that her patients did not need to be checked, whereas RN D said that she advised them that Baby A needed to be checked. Further, it seems they were not aware the RN D would be absent for an hour and not 30 minutes. Health NZ told HDC that both staff members independently indicated that no concerns had been identified to them about Baby A. Due to this conflicting information, I am unable to make a finding on whether the two staff members were advised of the requirement to check Baby A.
38. RN Conway advised that Baby A should have been checked at least once during RN D's one-hour break, as he was in an incubator under lights, he had an orogastric tube, he was premature, he was being observed for opioid withdrawal, and his mother was sleeping heavily. RN Conway advised that the workload¹⁵ on the ward was not high and would not have prevented the midwifery staff from being able to check on Baby A. Further, she advised that it would be reasonable to expect that RN D's patients would be observed during the time that she was on her break (between 12.15am and 1.30am) even in the absence of a specific request to do so. RN Conway advised that the concept of intentional rounding¹⁶ is a well-known practice that subsequently was written into policy at Health NZ in 2023.
39. Health NZ disagreed that Baby A should have been checked during RN D's break and contended that no concerns had been raised about Baby A, and he had been assessed and reviewed by several experienced staff as safe to be cared for in the postnatal ward. Health NZ reiterated that had Baby A been assessed as requiring close monitoring, he would not have been cared for in the postnatal ward and would instead have been escalated for paediatric care and transferred to NICU. Further, Health NZ said that its Neonatal Jaundice, Late Preterm and Neonatal Abstinence policies require assessments prior to feeds, or four hourly, and that intentional rounding was not a concept in the unit at the time. In any event, Health NZ said that one hour and 15 minutes would 'not be an unreasonable timeframe for intentional rounding'.
40. I also note that an Adverse Event Review conducted by Health NZ following these events found that Baby A's care was appropriate.
41. I acknowledge the remarks made by Health NZ and the findings from the Adverse Event Review. While I accept that the policies in place at the time may not have required a baby on the ward to be checked hourly, Baby A was unsupervised for a period of longer than one

¹⁵ RN Conway advised that the acuity level was demonstrated both by the positive care hours variance (where more nursing care hours were provided than anticipated or planned for a patient or group of patients, indicating overstaffing or a higher level of care than initially projected), and staff statements.

¹⁶ A structured process whereby nurses regularly check on patients using a standardised protocol to address issues like pain, positioning, personal needs, and placement of items.

hour, and irrespective of whether or not RN D communicated the need for Baby A to be checked, by her own account she thought that Baby A required a check while she was on her break. In my opinion, clinical judgement should have held greater sway in the care Baby A received during the time RN D was absent from the ward. I am cognisant of RN Conway's comments that there were several risk factors for Baby A that warranted a check occurring. As outlined above, RN Conway advised that Baby A should have been checked at least once during RN D's break, as he was in an incubator under lights, he had an orogastric tube, he was premature, he was being observed for opioid withdrawal, and his mother was sleeping heavily. I agree with RN Conway's remarks, and also agree with her further comments that the workload on the ward was not high and would not have prevented the staff from checking on Baby A, and that it would have been reasonable to expect that RN D's patients would be observed during the time she was on her break in the absence of a specific request to do so. Accordingly, in these circumstances I am critical that Baby A was not checked for over an hour while RN D was on her break.

Teamwork and provision of additional support

42. At the time of the events, RN D was working as a bureau nurse. Health NZ told HDC that RN D was familiar with the clinical work and physical environment, so she did not require a buddy or additional support. RN Conway advised that while the support RN D required would have been different from a staff member completely unfamiliar with the ward, in her view it did not completely remove the responsibility that the other staff on shift had to provide support and check in with RN D during the shift. RN Conway advised that RN D should have been working with a specified registered nurse who checked in with her about her patients during her shift.
43. RN Conway advised that there was a lack of teamwork and accountability demonstrated by the staff on the postnatal ward. RN Conway also advised (with respect to the replacement of the orogastric feeding tube) that the Charge Midwife Coordinator should have been aware of the decision to replace Baby A's feeding tube and been available to offer support to RN D and Ms A in this respect.
44. In response, Health NZ said that being allocated a late pre-term baby was well within RN D's scope and expertise and she had worked at Auckland Hospital for some years in the postnatal 'high-risk' wards. It stated that supervision in this case would not be expected or required, but that all staff have a responsibility to keep the senior midwives on shift informed of any concerns, and there is no evidence that the 'usual teamwork which happens on the ward, where staff check in on one another did not happen'.
45. I have taken careful note of Health NZ's response and RN Conway's advice. While I accept that RN D was an experienced clinician who was familiar with the environment, I do not consider that this removes the responsibility of staff to communicate with each other appropriately and actively support each other in a clinical setting such as this postnatal ward. The information provided indicates that there was a breakdown in communication and a lack of teamwork between staff on the postnatal ward at the time, and this had an impact on the care Baby A received. Accordingly, I am critical of Health NZ in this respect.

Decision

46. Right 4(5) of the Code states that every consumer has the right to co-operation among providers to ensure quality and continuity of services. This investigation has highlighted the unique clinical challenges of managing late pre-term infants postnatally and the importance of a team approach to care. While I acknowledge that the transfer of Baby A to the postnatal ward was consistent with accepted practice and Baby A was monitored appropriately by medical personnel with each of his presenting clinical symptoms managed appropriately by them, in my opinion, by failing to ensure that Baby A was checked for over an hour while RN D was on her break in the early hours of Day 4, and for an apparent lack of teamwork between nursing and midwifery staff working on the ward at that time, Health NZ breached Right 4(5) of the Code.

Changes made

47. Health NZ told HDC that it now has a designated transitional care unit for late pre-term¹⁷ babies and babies transferred from NICU; safety briefings are held at the beginning of each shift; Kōrero Mai¹⁸ has been implemented for escalation of concern; and it now has a Clinical Midwife Manager on every shift.

Recommendations and follow-up actions

48. I am satisfied with the changes made by Health NZ. Accordingly, I recommend that Health NZ provide a written apology to Ms A and Mr B for the shortcomings identified in this report. The apology is to be provided to HDC, for forwarding, within three weeks of the date of this report. I also recommend that Health NZ consider the suggested recommendations as outlined in RN Conway's and Dr Moore's advice, and report back to HDC on such consideration within six months of the date of this report.
49. A partly anonymised version of this report, naming only Health NZ Te Toka Tumai Auckland, Auckland Hospital, and the advisors on this case, will be sent to the Coroner and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

¹⁷ Born between 34 and 36 completed weeks of pregnancy. While late pre-term babies often appear healthy, they still face increased risks of complications compared with full-term babies.

¹⁸ A system whereby patients and their whānau can escalate their concerns about the care they are being provided. The first step is to contact a nurse, then if concerns remain, to contact the nurse in charge, and finally (if concerns still remain) to contact the Korero 0800 number, which will send a senior clinician to the bedside to speak with the patient/their whānau.

Appendix A: Independent clinical advice

The following independent clinical advice was received from paediatrician Dr Philip Moore:

‘10 January 2024

Complaint:	Master [Baby A]
Our ref:	20HDC01313
Independent advisor:	Dr Philip Moore, FRACP.

I have been asked to provide clinical advice to HDC on case number 20HDC01313. I have read and agree to follow HDC’s Guidelines for Independent Advisors.

I am not aware of any personal or professional conflicts of interest with any of the parties involved in this complaint.

I am aware that my report should use simple and clear language and explain complex or technical medical terms.

Qualifications, training and experience relevant to the area of expertise involved:	<p>I am a Consultant Paediatrician, with more than 30 years of experience in General and Neonatal Paediatrics, at a large regional centre. My experience includes care of late preterm babies in post-natal wards and the monitoring and care of babies at risk of drug withdrawal.</p> <p>My qualifications are Bachelor of Medicine and Bachelor of Surgery (MBChB, 1986) and Fellowship of the Royal Australasian College of Physicians (FRACP Paeds, 1993).</p>
Documents provided by HDC:	<ol style="list-style-type: none"> 1. A copy of complaint, submitted to our Office on 22 July 2021. 2. [Health NZ’s] responses submitted to our Office on 27 April 2021, 1 July 2021, 18 October 2021. 3. [Baby A’s]’s clinical records from [Health NZ] covering the period [Day1 – Day4]. 4. Relevant policies and procedures from [Health NZ]. 5. Statement from Dr [E] dated 26 January 2023. 6. Statement from Dr [C] dated 2 February 2023.
Referral instructions from HDC:	<p>Clinical advice requested</p> <p>Please review the enclosed documents that relate to the care provided to [Baby A] by Neonatologists Dr [C] and Dr [E], and [Health NZ] Te Toka Tumai Auckland and advise whether the care provided was appropriate in the circumstances, and why:</p> <p>In particular, please comment on:</p>

	<ol style="list-style-type: none"> 1. Whether it was consistent with accepted practice for [Baby A] to be placed into, and remain on Postnatal Ward [...], rather than NICU (without the benefit of hindsight). 2. Whether assessments of [Baby A] by Dr [C] were consistent with accepted practice. 3. Whether assessments of [Baby A] by Dr [E] were consistent with accepted practice. 4. The adequacy of relevant monitoring policies and procedures in place at [Health NZ] at the time [Baby A] was receiving care. <p>In relation to each of the questions above, please advise:</p> <ol style="list-style-type: none"> 1. What is the standard of care/accepted practice? 2. Has there been a departure from the standard of care or accepted practice? If so, please identify how the care departs from standards or accepted practice, and the extent of that departure (mild departure, moderate departure, or severe departure). 3. How would the care be viewed by your peers?
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Factual summary of clinical care provided to the complainant:

Brief summary of clinical events:	<p>The complaint, submitted on 22 July 2021, is complex and raises concerns about many aspects of antenatal, natal and postnatal care of both Ms [A] and her baby [Baby A]. There are many examples of differences in recollection and interpretation between the complaint and the hospital records and responses.</p> <p>I have been instructed to limit my focus to the care of [Baby A] after his birth. Therefore, although I have reviewed all of the clinical notes provided, and the detailed timeline provided as part of the [Health NZ] responses, I will summarise the aspects of care relevant to my opinion.</p> <p>[Baby A]’s mother was a [...] woman, in her fifth pregnancy. She had two previous preterm babies with growth restriction [...] both born by emergency section and both admitted to neonatal intensive care. The second of her babies [...], was born at 34+3, had abnormal Dopplers and breech presentation and prolonged preterm rupture of membranes. Sadly [...] died on the day after birth with pulmonary hypoplasia.</p> <p>During this pregnancy, mother was prescribed opiates (oxycodone) as part of management of a chronic pain</p>
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	<p>syndrome. Her maternity care was initially provided by her General Practitioner. There are well documented efforts to engage her with the [Health NZ] teams, including the High Risk team, the Preterm Birth Clinic and the Women's Health Pain Team but contact was difficult. This was partly due to her wish not to be referred to [Health NZ] services and an understandable aversion to, and fear of, Auckland Hospital.</p> <p>All recommended ultrasound scans, including growth scans, were performed as recommended and showed normal foetal growth and anatomy.</p> <p>At 0524 hrs on [Day1] mother presented to Auckland Hospital with spontaneous rupture of membranes. After assessment, rupture of membranes was confirmed but there was no evidence of active labour. After discussion, mother agreed to remain in hospital for observation. As it happened she had a community ultrasound booked previously and scheduled for later that day.</p> <p>At 1528 hrs on [Day1] the ultrasound again showed normal foetal growth. However, the Dopplers were abnormal and suggested a degree of placental insufficiency. Because of this, and the past history of neonatal death, a plan was made for a semi-urgent (Category 2) section for later that day. Continuous CTG monitoring was commenced and was reassuring. Antibiotics were given as part of standard management of premature rupture of membranes before section. Because gestation was greater than 35 weeks corticosteroids were not given.</p> <p>The section was performed under epidural anaesthesia.</p> <p>[Baby A] was delivered at 2305 hrs on [Day1] weighing 2530 gm (24thile), at 35³ weeks gestation, a minimum of 18 hours since rupture of membranes. The liquor was clear. He was vigorous at birth with Apgars of 9 at both 1 and 5 minutes. First gasp was immediate, he was dried and stimulated and no resuscitation was required. An initial clinical examination is documented and was normal. He was wrapped, introduced to his parents, and then placed in a cot.</p> <p>A cord arterial gas showed pH of 7.23, base excess -4 and lactate of 4.9 mmol/l. These results are acceptable and are objective evidence of his good condition at birth. A cord full blood count was normal. No surface swabs were taken.</p>
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	<p>A plan was made by the Paediatric Registrar at delivery for [Baby A] to remain with his mother on the Maternal Complex Care Area (MCCA). Monitoring included temperature, respiration and blood sugar monitoring. A plan to breast feed with supplemental feeds via nasogastric tube, every 3 hours, was documented. The volume of feed was calculated as 60 ml/kg/day based on birthweight, which is the standard full fluid requirement of a newborn.</p> <p>Plans were also in place to monitor for signs of Neonatal Abstinence Syndrome (NAS) using a standard neonatal scoring system (National Women’s CR5664).</p> <p>During his time in MCCA his temperature and respirations were normal. Blood sugar was slightly low (2.4 mmol/l, normal >2.6) at 2354 and 0045 and he was given Dextrose Gel, colostrum and a Nasogastric tube was inserted and he was given a 15 ml formula feed. His blood sugar then remained normal and monitoring was stopped after three normal sugars.</p> <p>His early NAS Scores (with 8 or above considered as a possible treatment level) were between 1 and 4.</p> <p>At 0645 hrs on [Day2] the nursing observations included “had small vomit but no concerns”.</p> <p>At 1030 hrs on [Day2] (11.5 hours of age) [Baby A] was seen by Dr [C] (Consultant Neonatologist). She met with both parents and the midwife on duty. Because [Baby A] was skin to skin and being fed she did not complete a full physical examination. She did review the normal observations, normal blood sugars, low withdrawal scores and made note that [Baby A] was “looking settled, pink, well perfused, settled breathing, no wob” (work of breathing). There is a clear outline of discussions about expectations at 35 weeks for general activity, sleepiness, feeding and jaundice. There is no comment about vomiting at that time.</p> <p>At 1100 hrs, 20 minutes after a 19 ml tube feed, the clinical notes include “vomit ++ milky vomit”. At 1300 hrs, during a 15 ml feed, the notes include “NG feed then vomiting so stopped”. At 1530 hrs on the observation sheet it notes “vomiting milk often”. At 1600 hrs the respiratory rate is recorded at 60/min with the nurse documenting “nasal flaring then settled” before another 19 ml tube feed is given and [Baby A] was transferred to a postnatal ward.</p>
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	<p>At about 1630 hours (17.5 hours of age) [Baby A] was transferred to the post-natal ward (ward [...]) for further care.</p> <p>During his first night on ward [...], [Baby A] was noted to have problems feeding. Mother's complaint reports that [Baby A] had been spilling or vomiting after the nasogastric feeds during the day.</p> <p>At 1903 hrs the nurse documents "demanding next feed. ++ vomits. 19mls NGT given".</p> <p>At 2230 hrs a NICU nurse specialist reviewed [Baby A] as the midwife had noted tachypnoea and increased work of breathing. [Baby A]'s observations at this time were recorded as a respiratory rate of 80 breaths per minute (normal rate 30–60 breaths per minute), pulse rate 139 (normal rate 110–160 beats per minute), and oxygen saturations 98% on room air (normal 95–100%).</p> <p>The NICU nurse specialist noted that the nasogastric tube was positioned through the right nostril, and that [Baby A] had mild to moderate indrawing (of chest) and was making a grunting-like noise. Her notes included "baby seeming to struggle with breathing".</p> <p>She noted that the umbilicus was "a bit red but no flare".</p> <p>She aspirated 60 ml of air and 7 ml milk from his stomach after which the abdomen was soft and not distended. She removed the nasogastric tube and suctioned both nostrils. The left nostril was assessed as too narrow for a tube. Without a nasogastric in place the fast breathing and increased work of breathing settled.</p> <p>No blood tests were performed.</p> <p>She then advised that an orogastric tube should be placed instead of the nasogastric tube as this would help keep the nose free. An OGT was subsequently inserted by the nurse caring for [Baby A] on the ward.</p> <p>At 23:39, the NICU nurse specialist went back to the post-natal ward to check and [Baby A] was comfortable, with no indrawing, his saturations were good, and he had no signs of respiratory distress at all. His temperature had remained normal throughout. He had tolerated a 12 ml feed and was asleep in his mum's arms.</p>
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	<p>The ward staff continued to monitor [Baby A] closely. [Baby A]’s narcotic withdrawal scoring improved overnight (score reduced from 5 to 0–1, and only mild tremor noted) with “decreased spill” since the OGT was placed.</p> <p>[Baby A] was positioned in the upright position for all his feeds and there were some small spills. Mother was expressing colostrum which was given to [Baby A] in addition to breast milk substitute at a rate of 19mls/3hrly through the OGT.</p> <p>No further calls were made to the NICU nurse specialist that night to review [Baby A] again or to discuss any further concerns.</p> <p>At 1040 hrs on [Day3] (35 hours of age) [Baby A] was reviewed by Dr [E] (Paediatric Registrar). She indicates improvement in baby since the nasogastric tube was replaced by the orogastric tube, but notes that the orogastric had fallen out and that [Baby A]’s last feed at 0930 was oral only. She documents a clear chest, normal work of breathing, normal heart sounds and a soft, non-distended abdomen and normal urine and stool outputs. The umbilicus remained slightly red. The withdrawal scores were low and remained so.</p> <p>The plans for that day included increasing the supplement feed volumes to a total of 75 ml/kg/day, to continue the supply line feed with finger sucking, but to consider reinserting the orogastric tube if needed and to continue all observations.</p> <p>Through that day the oral feeding seemed to be going well. The nurse notes “Q3hrly feeds 23 ml by SLFS — takes same well”. Full feed volumes were given at 1230, 1530, and 1830. Wet nappies, frequent stools and no vomits are recorded. Temperature and respiration rates were normal.</p> <p>Later that day [Baby A] looked jaundiced. At 1710 hours his serum bilirubin was 198 and he was commenced on phototherapy in an incubator. He was on a “Biliblanket” and had one overhead phototherapy light.</p> <p>There are clear discrepancies between the complainant’s memories and the hospital records and timeline at this time. The hospital record shows no vomits while [Baby A] was on SLFS feeding, whereas mother recalls:</p>
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	<p><i>“About 6.30 pm, on [Baby A]’s last feed that night before my husband left, he had a big vomit so the midwife cleaned him up and she said that she will raise him up by raising the incubator so that if he vomits it comes out.”</i></p> <p>Later that evening he was noted to be gagging and spilling was increasing. A feeding assessment was performed to ensure that the supply line feed with finger sucking was continuing to go well. The nurse reportedly found that [Baby A] was clenching down on the finger without suckling, that milk was pooling in his mouth and his feeding was uncoordinated. [Baby A] was said to be “gagging”.</p> <p>The medical notes then suggest discussions with the paediatric team ([NNP]) and the mother, with joint agreement to reinsert an orogastric tube.</p> <p>Again, the mother’s memories of these events is different:</p> <p><i>“Later that night, I had [Baby A] in arm and the midwife did the finger feed with [Baby A] but said that he was tired and was struggling. I felt like she was trying to convince me to stop feeding him this way. I noticed [Baby A] was feeding fine, pausing for a while until he was encouraged by blowing on his face or rubbing face, then he would start feeding again. It was exactly the same as earlier that day when my husband had finger fed him. The nurse kept saying “oh he’s too tired, it’s taking too much time, we shouldn’t be doing it in this way,” but [Baby A] was feeding no different to how he had been all day long”.</i></p> <p>Mother goes on to say:</p> <p><i>“She left for a bit and when she came back she told me that she was kidnapping my child, I said okay I trust you and she took him out of the room. I didn’t know what she was doing. When she returned back with [Baby A], he had a tube down his mouth. But earlier we said we didn’t want the feeding tube because there was no medical reason for it”.</i></p> <p>The NICU nurse specialist recommended either a nasogastric tube be placed in the left nostril, or an orogastric reinserted. Whether or not this was consented to is impossible to reconcile with mother’s complaint but according to the notes the latter was agreed with his mother and inserted by his nurse at 2230 hrs for the next feed due at 2300–2400.</p>
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	<p>[Baby A] was stirring at 2320 hrs and ready to feed. The clinical notes relating to this time are written in retrospect but record normal observations and a clinically well baby. The orogastric tube position was reportedly checked with litmus paper and a 23 ml formula feed given as planned and tolerated well. [Baby A] was kept upright for 15–20 minutes and then settled well in his incubator on phototherapy. The nurse then went on her break at 0015 on [Day4].</p> <p>Mother was not woken for this feed.</p> <p>[Baby A] was then not observed again until sometime after the nurse returned from her break at 0130 hrs.</p> <p>He was found to be pale, had vomited and the orogastric was “protruding” from his mouth. His mouth was cleared and he was stimulated but remained apnoeic and floppy so was removed from the incubator and carried to a resuscitation area.</p> <p>The retrospective nursing note suggests that she “immediately checked on baby” on return to the ward at 0130. However, an emergency code was not called until 0148 hrs. A Paediatric Registrar and Nurse Specialist attended immediately. The on-call Neonatologist was called at home to attend.</p> <p>Immediate resuscitation was started with a Neopuff and 100% oxygen. No heartbeat was detected so external cardiac massage (ECM) was given. When the NICU team arrived [Baby A] was intubated (ETT) and intermittent positive pressure ventilation (IPPV) given.</p> <p>At intubation “milk +++” was noted in the mouth, around the vocal cords and coming up through the cords. Adrenaline was given via the ETT for three doses while multiple attempts were made at intravenous line insertion (IVL). When an IVL was established at 0204 hrs three doses of intravenous adrenaline were given while IPPV and ECM continued throughout, and a bolus of saline was given.</p> <p>The Neonatologist (Dr [F]) was present by 0204 hrs. Unfortunately, there was no response to resuscitation, no heartbeat was ever detected, and active resuscitation was ceased at 0216 hrs.</p> <p>Dr [F] and the NICU [NNP] then went to tell [Baby A]’s mother about his death. [Baby A]’s father and older sister were</p>
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	<p>contacted to come into the hospital. To my understanding mother had been asleep at the start of the resuscitation. I cannot begin to imagine how traumatic these events must have been to them all.</p> <p>The duty Coroner was immediately contacted about this sudden and unexpected death. He advised reporting to the Police and an investigation was started.</p> <p>A postmortem was performed but the results are not available to me. The probable cause of death, based on the events described above, is milk aspiration with airway obstruction. I would also consider bacterial infection (unlikely) and metabolic disease (very unlikely) in this case.</p>
<p>Question 1: Whether it was consistent with accepted practice for [Baby A] to be placed into, and remain on Postnatal Ward [...], rather than NICU (without the benefit of hindsight).</p> <p>Question 4: The adequacy of relevant monitoring policies and procedures in place at [Health NZ] at the time [Baby A] was receiving care.</p>	
List any sources of information reviewed other than the documents provided by HDC:	<ol style="list-style-type: none"> 1. Barfield WD, Lee KG. Late Preterm Infants. Up To Date, June 2023. 2. Lapillonne et al. J Paediatr Gastroenterol Nutr, 2019 (ESPGHAN guidelines) 3. Royal Children’s Hospital, Melbourne, “Ward management of a Neonate” 2021.
Advisor’s opinion:	<p>[Baby A] was born at 35³ weeks gestation weighing 2530 gms.</p> <p>He was at some increased risk of infection with spontaneous premature prelabour rupture of membranes (PPROM) (which occurs in about 3% of all pregnancies), and with borderline prolonged rupture of membranes (PROM) (defined in New Zealand as > or equal to 18 hours, occurring in 8% of all pregnancies).</p> <p>He was in good condition at birth (as evidenced by his recorded Apgars and description, as well as by the cord blood gas and full blood count). The liquor was clear and not offensive in odour.</p> <p>He had a normal examination at birth.</p>

	<p>The Paediatric Registrar made a plan to leave [Baby A] with his mother in the MCCA, with later transfer to Postnatal Ward [...] when mother and baby were stable. He was to have regular clinical observations, including observation for signs of opiate withdrawal. Breast feeding attempts were to be supplemented with nasogastric formula feeds and these were calculated at a full Day 1 fluid requirement of 60 ml/kg/day (19 ml every three hours).</p> <p>In my opinion the decision to place [Baby A] with his mother in Postnatal Ward [...], as opposed to a Neonatal Unit, is consistent with accepted practice at Auckland Hospital and other large international hospitals.</p> <p>As described above there were a number of issues for [Baby A] in the postnatal wards. These included feeding problems and vomiting, an episode of respiratory distress thought due to nasal obstruction, umbilical redness, risk of NAS and jaundice. [Baby A] was being appropriately monitored and each of these issues was managed.</p> <p>In my opinion the decision to have [Baby A] remain on Postnatal Ward [...] is consistent with accepted practice at Auckland Hospital.</p> <p>For context I would comment that other hospitals in New Zealand have different arrangements for the care of late preterm babies. At my regional hospital we have a Level 2A SCBU with trained neonatal nurses but we do not have a transitional nursery, nor enough trained staff to care for babies < 36 weeks and/or requiring tube feeding on the postnatal ward. In my hospital [Baby A] would have been admitted to SCBU.</p> <p>However, Auckland Hospital is a much larger unit with appropriate numbers of trained staff (doctors, nurses and midwives) to provide this care in a postnatal ward. My understanding is that at least 200 late preterm babies are managed each year in this way.</p>
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	<p>Indeed, my hospital is developing plans for a facility and staff training to allow us to move towards this level of care.</p> <p>I would like to comment on other aspects of [Baby A]’s care.</p> <p>Firstly, the feeding plan put in place at birth was to encourage breast feeding and expression so that he received any available colostrum. It was recognised that this would not meet his needs (in terms of glucose and fluid) so supplementary feeds of breast milk substitute (formula) were to be given by NGT, at a rate of 19 ml every three hours (60 ml/kg/day). This rate was increased to 23 ml every three hours (75 ml/kg/day) at about 36 hours of age.</p> <p>These volumes are in excess of recommended supplementary feed volumes in the current local Auckland guideline (Feb 2023) in which it states:</p> <p>“If the baby is not transferring milk adequately or for an adequate amount of time e.g. tires quickly, then consider early supplementation with a volume that meets the basic nutritional needs of the baby. For example 5–10 mL day 1, 10–15 mL day 2 etc.”</p> <p>In the local Auckland guideline (Dec 2019) for “Hypoglycaemia in the neonate” the algorithm for management, where moderate hypoglycaemia persists despite dextrose gel and breast feeding, refers to supplementary feeds of EBM or formula at 40ml/kg/day (or 5 ml/kg per feed). For [Baby A] this would have been 12–13 ml every three hours.</p> <p>I am not clear if, at the time of these events [...], the guidelines for supplementary feed volumes were any different.</p> <p>As well, international authorities (Barfield WD at al, June 2023) recommend cautious low volume supplementation to begin with ie 2–10 ml day 1, 5–15 ml day 2, 15–30 ml day 3 etc.</p> <p>On the other hand the Royal Children’s Hospital, Melbourne, guidelines suggest that enteral feeds can “commence at 30–60 ml/kg/day”. That would put</p>
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	<p>[Baby A]’s initial intake at the top of the recommended range.</p> <p>In my opinion the initial and subsequent feed volumes were higher than necessary in this case.</p> <p>It is well recognised that late preterm babies “require additional monitoring and support compared to well term infants because their orobuccal strength and coordination of swallow/breathing mechanisms are not fully developed” (Barfield et al, 2023). Oromotor dysfunction with gagging/choking/spilling is common in such infants (Lapillonne et al, 2019).</p> <p>[Baby A] developed significant issues with vomiting. These are described above. The cause is impossible to say with certainty but he appeared to tolerate milk feeds by OGT and SLFS better than by NGT, so nasal obstruction and air-swallowing may have been a factor. The plan to keep [Baby A] upright for a time after feeds is evidence that feed intolerance was seen as a problem.</p> <p>In my opinion this symptom should have been assessed more formally. As well as the method of feeding (which was considered) the feeding volume should have been reviewed.</p> <p>Options would have included reducing the volume of daily milk intake or increasing the frequency of feeds at smaller volume. As well, medical causes of vomiting such as infection should have been considered. There was nothing to suggest bowel obstruction. Vomiting is a common symptom in NAS, although the overall monitoring scores were satisfactory.</p> <p>[Baby A] was at increased risk of bacterial infection. According to the local Auckland guideline (Jan 2020) his risk factors were prematurity, premature prelabour rupture of membranes (PPROM), and prolonged rupture of membranes > 18 hours (PROM). As such he was monitored closely and his cord full blood count was reassuring.</p> <p>The relevant local guideline suggests that with these risk factors bacterial swabs of the ear and axilla, and</p>
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	<p>possibly a gastric aspirate, should be carried out. This did not occur.</p> <p>He then developed symptoms and signs at 23.5 hours of age including tachypnoea, increased work of breathing, grunting, abdominal distension and a red umbilicus but no flare. By this time, he had had at least four significant vomits recorded.</p> <p>The neonatal nurse specialist assessed [Baby A]. Her interventions included aspiration of air and milk from his stomach, after which his abdomen was not distended. She recommended removal of the NGT and replacement with an OGT. On review 50 minutes later [Baby A] appeared settled with no respiratory signs.</p> <p>In retrospect it appears likely that the symptoms and signs were related to the nasal obstruction, with a narrow airway on the left and the NGT blocking the right.</p> <p>In my opinion it is surprising that bacterial infection was not initially considered as a cause of this presentation. [Baby A] had risk factors and symptoms. I would expect most clinicians in this circumstance to at least review a full blood count and possibly CRP for assessment and reassurance.</p> <p>The failure to consider infection is mitigated by the reassessment of [Baby A] an hour after his stomach was aspirated and NGT removed. Resolution of his symptoms and signs was then reassuring. But at the time of the initial assessment this was not certain.</p> <p>Two other aspects of [Baby A]’s care should be considered by way of expert nursing and midwifery advice. Firstly, the rationale for reinserting his OGT late on [Day3]. Secondly, the level of supervision indicated during the night duty nurse’s 90-minute break.</p>
<p>What was the standard of care/accepted practice at the time of events? Please refer to relevant standards/material.</p>	<p>The standard of care at the time of these events is well described in the various relevant Auckland guidelines provided. Some of these are versions dated after the events but are unlikely to have changed much.</p>

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	<p>“Infant: Late preterm care on the postnatal ward (transitional care)” February 2023.</p> <p>“Postnatal wards: management of infants under paediatric care” January 2020.</p> <p>“Feeding — newborn babies on postnatal wards” April 2019.</p> <p>“Drug dependency — infants born to drug dependent mothers” August 2018.</p> <p>“Jaundice: management of neonatal jaundice” September 2020.</p> <p>“Phototherapy for the jaundiced baby — the use of lights and biliblanket” August 2018.</p> <p>“Hypoglycaemia in the neonate” December 2019.</p> <p>“Jaundice: management of neonatal jaundice” September 2020.</p> <p>“Substance Use in Pregnancy and Postnatal Period — Care of the Woman and Baby” December 2020.</p>
<p>Was there a departure from the standard of care or accepted practice?</p> <ul style="list-style-type: none"> • No departure; • Mild departure; • Moderate departure; or • Severe departure. 	<ol style="list-style-type: none"> 1. In regards to the decision not to admit [Baby A] to NICU immediately after birth I find no departure from accepted practice or the standard of care. 2. In regards to the decision for [Baby A] to remain on the postnatal wards during the issues described above I find no departure from accepted practice or the standard of care. 3. In regards to the adequacy of relevant monitoring policies and procedures in place at [Health NZ] at the time [Baby A] was receiving care I find no departure from accepted practice. 4. It is worth commenting that clinical guidelines are “guides” to management, not “protocols” that must be followed. There is always a place for clinical judgement by experienced clinicians and the clinical notes do not always reflect the true nature of events at the time. Having said that I have highlighted two areas of care (i.e., feeding issues (volumes, vomiting) and consideration of infection) where the relevant guidelines were not followed. I find these issues to be a mild departure from the standard of care.

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<p>How would the care provided be viewed by your peers? Please reference the views of any peers who were consulted.</p>	<p>The decisions made to care for [Baby A] in a postnatal ward setting, rather than in NICU, would be approved of by my peers. The overall care provided to [Baby A] would also be approved of.</p> <p>In regards to the issue of his feeding, both the initial volumes and later management of his vomiting, there would be a range of opinions. In my opinion most paediatricians would have inserted a NGT for supplementary feeds as in this case but would have started at a lower volume. In response to the vomiting noted most paediatricians would then have considered reducing the feed volumes and/or increased the frequency (smaller feeds more often).</p> <p>In regards to the consideration of infection risk there would be a range of opinions and practice around the motu. In my unit we would have considered [Baby A] as at increased risk of infection and monitored accordingly. His symptoms and signs late on his first day would have prompted a full blood count and CRP. If these were normal, and with his symptoms resolving after NGT removal, we would have continued to observe without antibiotics. The Auckland guidelines would recommend swabs of the ear and axilla in this case. Many units in New Zealand, including mine, have abandoned this practice.</p>
<p>Please outline any factors that may limit your assessment of the events.</p>	<p>The irreconcilable differences between the mother's description of some events, and the same events documented in the medical record, make interpretation difficult. I have tended to give more weight to the contemporaneous medical and nursing records in this regard, but the mother's genuine memories need to be acknowledged and respected.</p> <p>I note that the main nursing note describing events after the final reinsertion of an OGT (including the last feed, his final observations, the nurse's break, and the discovery of [Baby A] with cardiorespiratory arrest, and the events after the attempted resuscitation) are written retrospectively.</p>
<p>Recommendations for improvement that may help to</p>	<ol style="list-style-type: none"> 1. Local guidelines for initial feed volumes for late preterm babies who are unable to fully breast feed should be reviewed. Concordance with the guideline could be prospectively audited.

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prevent a similar occurrence in future.	<ol style="list-style-type: none"> 2. The decision whether to insert an NGT or OGT in a late preterm baby should always be discussed with the paediatric team. If at a later stage the tube has been removed or dislodged, the decision whether to reinsert should also be discussed. 3. If reinsertion is thought necessary after a period of satisfactory oral feeding (eg syringe, cup, bottle or SLFS) the baby should be examined and reviewed by the paediatric team to ensure it is necessary. 4. I have recommended above that expert nursing or midwifery advice be obtained relating to monitoring of late preterm babies during nursing breaks. This may depend on clinical circumstances.
<p>Question 2: Whether assessments of [Baby A] by Dr [C] were consistent with accepted practice.</p> <p>Question 3: Whether assessments of [Baby A] by Dr [E] were consistent with accepted practice.</p>	
List any sources of information reviewed other than the documents provided by HDC:	
Advisor's opinion:	<p>As outlined above Dr [C] reviewed [Baby A] at 11.05 hours of age. This was a consultant review because Dr [C] had been involved with the family's previous baby [...] who had died in [...] with pulmonary hypoplasia.</p> <p>Dr [C] details her involvement and thought processes with [Baby A] in her personal report dated February 2023.</p> <p>At the time of her assessment [Baby A] was skin-to-skin with his mother and receiving a nasogastric feed. It was reasonable and normal in the circumstances to limit the assessment to a review of the observation records and some direct observations of colour, perfusion and respiratory effort; without the need for a full physical examination.</p> <p>At that time [Baby A] had only had one small vomit 4 hours previously. Shortly after Dr [C] finished her assessment, and as [Baby A] was returned to his cot</p>

	<p>at 1100 hrs, he had his first significant vomit (“vomit ++ milky vomit). He then went on to vomit at 1300 hrs, during a 15 ml feed, the notes include “NG feed then vomiting so stopped”. At 1530 hrs on the observation sheet it notes “vomiting milk often”.</p> <p>Dr [C] therefore had no cause to question the volume of feed being given (which she refers to as a “full top up”).</p> <p>After her assessment and some further discussion, the reasonable decision was made to transfer to Postnatal Ward [...] and that was clinically appropriate.</p> <p>Dr [C] then was called away to a significant family crisis and handed over care of [Baby A] to the neonatal nurse specialist who a few hours later assessed [Baby A] for respiratory distress. In her report Dr C describes this handover and says “the midwife had recently reassured me that [Baby A] was doing well”.</p> <p>It is therefore not clear from the notes or Dr [C]’s report that she was made aware of the subsequent vomits, or the brief period of borderline tachypnoea and nasal flaring, before transfer to postnatal ward at 1630 hrs.</p> <p>[Baby A] was reviewed again at 1040 hrs on [Day3] (35 hours of age) by Dr [E] (Paediatric Registrar).</p> <p>Dr [E] notes the risk factors of prematurity and PPRM, and the prescription of antenatal erythromycin as a result. She notes the episode of increased work of breathing overnight.</p> <p>She indicates improvement in baby since the nasogastric tube was replaced by the orogastric tube, but notes that the orogastric had fallen out and that [Baby A]’s last feed at 0930 was oral only. The improvements noted included resolution of any increased work of breathing.</p> <p>By the time of this assessment [Baby A] had had a 12-hour period since his NGT was removed, replaced by an OGT, and then when that was dislodged his first</p>
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	<p>oral feed (SLFS). Over that time no vomits apart from one “small spill” are noted.</p> <p>She documents a clear chest, normal work of breathing, normal heart sounds and a soft, non-distended abdomen and normal urine and stool outputs. The umbilicus remained slightly red but there was no “flare” and no other sign of infection.</p> <p>The withdrawal scores were low and remained so. Blood sugars had been normal and were discontinued.</p> <p>The plans for that day included increasing the supplementary feed volumes to a total of 75 ml/kg/day, to continue the supply line feed with finger sucking, but to consider reinserting the orogastric tube if needed and to continue all observations.</p> <p>It is clear from Dr [E]’s report that she did not think that previous vomiting required any investigation. She mentions a “single projectile vomit” from [Day2] on the NAS chart; but there are three vomits recorded on that chart and further references in the nursing notes detailed above.</p> <p>I accept that by the time Dr [E] saw [Baby A] he had normal observations, normal examination (apart from slightly red umbilicus), had no vomits for 12 hours and had had a successful oral feed. There is therefore no indication at this time to change the plan, to admit to NICU or to investigate vomiting.</p> <p>It remains my opinion that the feed volumes were higher than necessary to start with and that this may have contributed to the vomiting and feed intolerance to some extent.</p> <p>The mother then describes a “large vomit” at 1830 hours on [Day3]. This is not recorded on the Observation Chart but the nursing note indicates “baby tending to gag on milk, spilling” and I suspect this is part of the reason an OGT was replaced that evening.</p>
What was the standard of care/accepted practice at the	The relevant guidelines are listed above.

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time of events? Please refer to relevant standards/material.	I have also based my response on personal experience with care of late preterm babies.
<p>Was there a departure from the standard of care or accepted practice?</p> <ul style="list-style-type: none"> • No departure; • Mild departure; • Moderate departure; or • Severe departure. 	<ol style="list-style-type: none"> 1. In regards to the assessment and management plan from Dr [C] I find no departure from accepted practice. 2. In regards to the assessment and management plan by Dr [E], based on the information and [Baby A]'s condition at the time, I find no departure from accepted practice.
Please outline any factors that may limit your assessment of the events.	See above
Recommendations for improvement that may help to prevent a similar occurrence in future.	See above
Name: Dr Philip Moore, FRACP'	

Further advice from Dr Moore:

'Thank you for your message dated 15/03/24 requesting that I review further documents relating to Case 20HDC01313, including the response from Te Toka Tumai Auckland to my earlier advice dated 10/01/24.

These documents include the local adverse event review report, the post-mortem report, further reports from clinicians and some relevant medical literature.

In my original advice I included a detailed timeline of events. I have reviewed this timeline in view of the later responses, with particular review of [Baby A]'s feeding and vomiting history, and I find no reason to make any changes. I note again that there are many examples of differences in recollection and interpretation between the family and hospital records and responses. I also note that to develop what I felt was a complete picture required review of different sources of information: the complaint, the medical/nursing notes, observation charts and feeding charts.

I have reviewed the post-mortem report. Despite the fact that this does not give a definitive cause of death I note that the most likely cause of death, milk aspiration and airway obstruction, cannot be excluded. Although milk can be found in the airways as a consequence of resuscitation efforts it is noteworthy that in this case milk was noted in the mouth, pharynx and below the vocal cords at the time of intubation. In my opinion this makes premortem aspiration likely. The post-mortem does rule out sepsis as a cause of death.

In my original advice I concluded that it was appropriate for [Baby A] to be cared for out of Neonatal Intensive Care in a Post-natal ward setting. I concluded that his overall management and monitoring met adequate standards and was in line with the [Health NZ] guidelines at the time. Further, the assessments and decisions made by Dr [C] and Dr [E] were consistent with accepted practice.

However, I commented at length on issues related to feed volume and feed tolerance and related to assessment of infection. For both issues I found a mild departure from accepted care.

It remains my opinion that initial and subsequent feed volumes were greater than they needed to be in this case and may have contributed to significant vomiting. I also repeat that the various Auckland guidelines that apply in this case are contradictory and confusing. The plan was to feed [Baby A] at 60 ml/kg/day of formula via nasogastric tube from the first feed (although in reality he was given a little less than this). Although there is one local ACH guideline (Fluids — Fluid and Glucose Requirements, 2021) that recommends initial feeds at 60 ml/kg/day on Day 1 that is written for babies in NICU. The local guideline that seems to apply to [Baby A] on the postnatal wards (Hypoglycaemia in the neonate, 2019) would have seen him start on 40 ml/kg/day.

The response from Te Toka Tumai Auckland references a randomised controlled trial (Zecca et al, 2014) which compares two feeding regimes in late preterm babies, one group starting at 60 ml/kg/day and the other at 100 ml/kg/day. They found that there was a reduced length of stay and reduced risk of hypoglycaemia in the higher volume group, with no evidence of difference in feed tolerance. I had reviewed this paper while preparing my original response but did not believe it was relevant or helped in discussing feed volumes for a number of reasons.

1. The late preterm babies in this study were all small for gestational age (SGA, weight z-score < -1.28). [Baby A] was AGA.
2. All the babies in this study received only human milk (own mother's milk or donor milk) for at least the first week of life. [Baby A] was formula fed.
3. Babies of 35–36 weeks gestation (like [Baby A]) were fed by continuous gastric feeding for the first 2 days of life, not bolus feeding as [Baby A] was.
4. Finally, even in this study when feeding intolerance occurred (defined as 3 consecutive episodes of vomiting with feeding, as [Baby A] had at times) the feeding volume was reduced.

Auckland also references the DIAMOND study (Bloomfield et al, 2018) as a possible source of guidance in the future. Again, I deliberately did not mention this still to be published trial as I do not think it is relevant in this case. All the babies in this trial have an IV line in situ, either for Partial Parenteral Nutrition or IV dextrose, and feeds are then introduced gradually according to the different regimes being studied. This is very different to commencing full volumes of enteral feeds from Day One.

Overall I accept that there is a paucity of evidence to guide initial feed volumes in late preterm babies. Although it remains my personal opinion that 60 ml/kg/day is in excess of usual requirements there is at least one commonly used guideline (Royal Children’s Hospital, Melbourne) which would allow this (they recommend 30–60 ml/kg/day). Because of this, and because of the conflicting advice even between the relevant Auckland Guidelines, **I think it is unfair to find a mild departure from accepted practice and would amend my opinion.** I still recommend that all the guidelines be reviewed and the advice standardised to reflect current practice.

In regards to assessment on infection, it remains my opinion that many Paediatricians (and even more junior doctors) would consider requesting a Full Blood Count and CRP at the time of [Baby A]’s review with respiratory distress. I did indicate that “there would be a range of opinions and practice around the motu”. I have reviewed the detailed report from [the [NNP]] and now have a better understanding of the event, her assessment and interventions. She makes a convincing argument that the event, the intervention, and the subsequent review within an hour should all be considered as a single episode. In fact I did suggest that in my original advice with “the failure to consider infection is mitigated by the reassessment of [Baby A] an hour after his stomach was aspirated and NGT removed”. I also accept that the NP is a very experienced clinician who did consider infection. **For these reasons I would amend my opinion and no longer consider this a mild departure from accepted care.**

The only reason I mentioned the lack of surface swabs and gastric aspirate was because these still formed part of the Auckland Guideline. I expressed surprise at this as I had thought this practice was discredited years ago. It now seems that this practice is not followed in Auckland and I am unclear why it still forms part of the guideline. I was asked to compare management to the guidelines as provided: this was the only reason I mentioned this in my original advice.

After reviewing the new information in response to my original advice I would now like to amend my advice as above.

My recommendations for further action remain unchanged.

Thank you again for asking my advice about this tragic and traumatic event.’

Appendix B: Independent clinical advice

The following advice was received from RN Rebecca (Becky) Conway:

'Complaint:	[Baby A]
Our ref:	20HDC01313
Independent advisor:	Rebecca Conway 

I have been asked to provide clinical advice to HDC on case number 20HDC01313. I have read and agree to follow HDC's Guidelines for Independent Advisors.

I am not aware of any personal or professional conflicts of interest with any of the parties involved in this complaint.

I am aware that my report should use simple and clear language and explain complex or technical medical terms.

<p>Qualifications, training and experience relevant to the area of expertise involved:</p>	<p>I have been a Registered Nurse for 35 years. I have spent most of my professional life working in Child Health specialty practice, caring for families, children, and babies. In this area I have held positions as Staff Nurse, Nurse Educator and Charge Nurse Manager.</p> <p>As Charge Nurse, I managed a 24-bed paediatric medical ward and 8-bed paediatric high dependency unit where children and infants were cared for, including neonates requiring feeding support, respiratory support, and treatment for jaundice and infection.</p> <p>My role as Charge Nurse included investigation of patient incidents and serious events, and participation in interdisciplinary mortality and morbidity review meetings. I sat on a Child Health incident review group, advising on complex incidents and identifying emerging patterns of patient harm and where policy and practice needed to be changed.</p> <p>I am currently a Nurse Coordinator in a Care Capacity Demand Management (CCDM) unit. CCDM uses data to help hospital wards measure and manage acuity to ensure there are enough nursing staff with the right skills to provide safe patient care. A component of this role is regular redeployment survey analysis. The survey gathers information on the experience of RNs who are sent to work outside their home ward for a shift, including RNs who work for the Nursing Pool or Bureau. The results inform</p>
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	<p>how wards prepare themselves to support RNs deployed for a shift.</p> <p>Limiting factors in providing this advice are:</p> <ul style="list-style-type: none"> • I have not worked in a Neonatal unit. • My unfamiliarity with the [NNP] role in the Neonatal specialty area. <p>For this reason, I have requested that the HDC seeks a separate review for [the [NNP]].</p> <p>My highest academic qualification is a Post Graduate Diploma in Nursing.</p>
Documents provided by HDC:	<ol style="list-style-type: none"> 1. Letter of complaint dated 22 July 2021. Please note that Ms [A] has raised concerns that have been assessed separately in another complaint about her care. This complaint focusses on the care provided to [Baby A]. 2. [Health NZ's] responses submitted to our Office on 27 April 2021, 1 July 2021, 18 October 2021. Please note that the responses have been redacted to prevent the influence of hindsight biasing the advice. 3. [Baby A]'s clinical records from [Health NZ] covering the period [Day1-Day4]. Please note that all post-mortem documents have been removed from the notes. 4. Relevant policies and procedures. 5. Statement from NP 6. Statement from RN [D]
Referral instructions from HDC:	<p>RN [D]</p> <ol style="list-style-type: none"> 1. Whether RN [D]'s handover to the two midwives (RM [G] and RN [H]) prior to leaving on her scheduled one-hour break at 12.15am on [Day4] was appropriate in the circumstances, and in light of [Baby A]'s condition at that time. 2. Whether RN [D]'s decision not to activate the emergency bell when she found [Baby A] unresponsive was appropriate in the circumstances, considering RN [D]'s rationale that she did not want to wake [Baby A]'s mother and wanted to remain fully focussed on attending to [Baby A]. 3. Whether RN [D]'s clinical management of [Baby A] after finding him unresponsive was appropriate in the circumstances. 4. Any other comments that you wish to make regarding the care provided to [Baby A] by RN [D].

Referral instructions from HDC:	<p>[Health NZ]</p> <ol style="list-style-type: none"> 1. Any comments that you wish to make about the fact that baby [Baby A] was not checked on by RM [G] and RM [H] during RN [D]'s hour-long break. 2. Any other comments that you wish to make regarding the care provided to [Baby A] by [Health NZ].
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Factual summary of clinical care provided complaint:

Brief summary of clinical events:	<p>Background</p> <p>On [Day1], [Ms A]'s waters broke. She went to Auckland Hospital where a doppler scan showed reduced placental blood flow, prompting a caesarean delivery.</p> <p>[Baby A] was born at 35 weeks gestation at 11.05pm [Day1]. He had been exposed in-utero to oxycodone and required monitoring for signs of opioid withdrawal which was likely to be observed in the first 24–72 hours after birth. Though premature, [Baby A] appeared healthy at birth apart from slightly low blood sugar levels.</p> <p>At the time of [Baby A]'s birth, Auckland was in lockdown restrictions owing to the COVID-19 pandemic. This included hospital visitor restrictions.</p> <p>[Ms A] had significant anxiety about being at Auckland Hospital where [...] her daughter [...] died [...].</p> <p>Complaint</p> <ol style="list-style-type: none"> 1. <i>Visiting</i> <p>Following [Baby A]'s birth, [Ms A] wished to have her partner stay overnight with her to help care for [Baby A] on the post-natal ward. This request was rejected on [Day2 and Day3] due to pandemic restrictions. Other partners were observed to be staying overnight.</p> <ol style="list-style-type: none"> 2. <i>Care</i> <p>[Ms A's] account of her and [Baby A]'s care was that there were aspects of care that were omitted, and that the care felt hurried and lacking empathy. In particular, she felt that [Baby A]'s feeding was being rushed.</p> <p>[Ms A]'s account was that she did not consent to [Baby A] having an orogastric tube inserted on the night of [Day3]. [Ms A] described not knowing what was happening to [Baby A] when he</p>
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was taken away from her room. On [Baby A]’s return he had a “tube down his mouth” despite [Ms A]’s assertion that “we said we didn’t want the feeding tube”. RN [D]’s account in her statement was that [Ms A] gave verbal consent for an orogastric tube and elected not to be present while it was inserted.

Following the tube insertion on [Day3], [Ms A] observed [Baby A]’s arms being tied to the incubator with bandages. She requested that [Baby A] “was not left like this” and recounted that the staff member convinced her that the restraint was necessary. RN [D]’s statement made no reference to restraint when she settled [Baby A] following the orogastric tube insertion at approximately 10.30 pm on [Day3]. When RN [D] settled [Baby A] into his incubator following a feed at 11.30 pm, RN [D]’s statement recounted that “[Baby A]’s hands were free and positioned by his sides”.

3. Listening to concerns

[Ms A] described raising concerns about [Baby A] that were either dismissed or not taken seriously. These included her observation of [Baby A]’s increasing nasal mucus, sneezing and frequent vomits.

The decision-making around how [Baby A] would be fed appeared to discount [Ms A]’s request that [Baby A] be fed by bottle.

4. Emergency

[Ms A] was not woken immediately when [Baby A] was discovered to be unresponsive on [Day4] at approximately 1.35 am. Instead, she was woken after [Baby A] was in the nursery having active resuscitation.

RN [D], request to NP for review of [Baby A]

On the night of [Day2 and Day3], RN [D] from the hospital bureau (nursing pool) was assigned the care of [Baby A] for her 12-hour night shift. At 10.30 pm RN [D] called the NP to review [Baby A], who had developed increased work of breathing, a distended abdomen, and ongoing spilling. At this time [Baby A] had a nasogastric feeding tube in his right nostril.

NP review of [Baby A]

NP cleared [Baby A]’s nasal passages and emptied air and some liquid from his stomach. This resulted in an improvement in [Baby A]’s respiratory symptoms and a softening of his abdomen. NP asked RN [D] to remove the nasogastric tube and insert an orogastric feeding tube which she believed would ease

	<p>respiratory secretions from blocking [Baby A]’s nostril and might have helped him keep his feeds down.</p> <p>NP returned to reassess [Baby A] again at 11.30 pm. Following this review, the written instruction from NP to RN [D] was to “continue”, and monitor [Baby A]’s umbilicus which was red.</p> <p>RN [D], assessment of [Baby A]’s feeding</p> <p>On the night of [Day3 – Day4], RN [D] was again assigned the care of [Baby A] for her 12-hour night shift. The orogastric feeding tube had come out on the previous shift and [Baby A] was taking feeds orally. RN [D]’s subsequent assessment was that [Baby A]’s feeding was uncoordinated, resulting in gagging and spilling.</p> <p>NP advice to reinsert feeding tube</p> <p>NP was called by RN [D] about [Baby A]’s uncoordinated feeding, and recommended insertion of a nasogastric tube sited in the left nostril. This advice was given by phone and [Baby A] was not seen by NP at this point. The advice was altered to insertion of an orogastric tube after RN [D] raised concern about possible left nostril obstruction and [Ms A]’s reluctance about a nasogastric tube.</p> <p>RN [D], consent for feeding tube insertion</p> <p>RN [D]’s progress notes record that [Ms A] was reluctant for [Baby A] to have a nasogastric tube and agreed to have an orogastric tube.</p> <p>RN [D], RM [G] and RM [H], handover</p> <p>At approximately 11.30 pm, while [Ms A] slept, RN [D] fed [Baby A] and settled him into his incubator under phototherapy lights. At approximately midnight, RN [D] handed [Baby A]’s care to midwives [G] and [H], asking them to check on [Baby A], and commenced her hour-long break.</p> <p>RN [D], activation of emergency</p> <p>On return from her break, RN [D] was informed that neither midwife had time to check [Baby A]. On checking [Baby A] at 01.35 am RN [D] discovered him pale and not breathing. RN [D] took steps to stimulate [Baby A], deciding not to waken [Ms A] so she could concentrate on the emergency. She took [Baby A] to the nursery where resuscitation equipment was available, calling for a colleague to activate the clinical emergency “code blue” as</p>
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	<p>she went. The resuscitation record noted the time of the code blue at 01.48 am.</p> <p>On reaching the nursery CPR was commenced. The NICU team including NP [...] arrived and continued to attempt to resuscitate [Baby A]. [Baby A] was declared deceased at 02.16 am after no signs of life were observed despite ongoing active resuscitation attempts.</p>
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Care given by RN [D]

<p>1. Whether RN [D]'s handover to the two midwives (RM [G] and RM [H]) prior to leaving on her scheduled 1 hour break at 12.15am on [Day4] was appropriate in the circumstances, and in light of [Baby A]'s condition at that time.</p>	
<p>List any sources of information reviewed other than the documents provided by HDC:</p>	<p>NZNO, (2023) NZNO-Te-Whatu-Ora-Collective-Agreement-31-March-2023-31-October-2024.pdf, accessed 03/04/2024</p> <p>Safe Staffing Healthy Workplaces Aotearoa. (2024). Variance Response Management. Accessed 22/04/2027. Variance Response Management Safe Staffing Healthy Workplaces Unit (sshw.health.nz)</p>
<p>Advisor's opinion:</p>	<p>It is my opinion that the handover lacked a specific instruction as to when [Baby A] needed to be checked and why.</p> <p>In taking an hour-long break, RN [D] would have had to ensure that one of her colleagues could observe or "round" on each of her patients as a minimum standard of care.</p> <p>There was no evidence that a specific discussion occurred about [Baby A]'s condition, signs of possible opioid withdrawal, what his current withdrawal symptom score was and when the next observation should take place.</p> <p>There appears to have been general inconsistency in the way staff documented in the CR5664 chart for opioid withdrawal. The documentation of these observations was sometimes only partially complete and carried out less regularly than 3–4 hourly.</p> <p>There is no workload or ward acuity information in TrendCare or the Variance Indicator Score that was submitted that night to suggest why [Baby A] was not checked during RN [D]'s break.</p> <p>Amendment of opinion in the context of further evidence</p> <p>I thank RN [D] for providing additional detailed information to assist with this opinion.</p>

	<p>In her statement dated 23 May 2024, RN [D] indicated that it was customary to take a 1-hour break during a 12-hour night shift on ward [...]. I am not critical of this, but only aware that there was more than one hour of accumulated time where RN [D] was away from the ward including handing over then returning to the ward to touch base with her colleagues. It is my opinion that each of her patients, including [Baby A] and [Ms A] should have had a visual check while she was gone. On a night shift this would usually involve standing in the doorway of a patient room to observe that</p> <ul style="list-style-type: none">• the patient is in a safe position• the patient's chest is rising and falling or that audible breath sounds can be heard• medical equipment is working, such as the incubator and phototherapy lights <p>In her May 2024 statement, RN [D] described that she specifically handed over her patients to RM [G] who was Charge Midwife Coordinator, and that RM [H] was also present at that time. She requested that [Baby A] was checked when she was on her break based on his medical history and status as a monitored baby (cared for in an incubator with phototherapy). RN [D]'s belief was that RM [G] as Charge Midwife Coordinator was aware of [Baby A]'s history and condition. In her May 2024 statement RN [D] outlined that she performed an undocumented opioid withdrawal assessment following [Baby A]'s feed and before her break and was satisfied that [Baby A] was showing no adverse symptoms.</p> <p>RM [G] and [RM H] state that when RN [D] went on her break that she advised them that her patients were safe and adequately cared for and did not require anything.</p> <p>While it may or may not be the case that RN [D] requested a specific check of [Baby A] during the time that she was on her break, I consider that a visual check should have occurred. The ward was not busy. The break was planned, and the length of the break known. The staff knew that [Baby A] was a being cared for in an incubator under phototherapy lights with an orogastric feeding tube in place. While RN [D] was on her break, it is my opinion that the remaining staff had assumed responsibility for her patients.</p> <p>As a result of the additional information from RN [D], I consider that if she requested for [Baby A] to be visually checked, I find there was no departure from the expected standard with regards to the handover.</p>
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<p>What was the standard of care/accepted practice at the time of events? Please refer to relevant standards/material.</p>	<p>Length of meal break.</p> <p>The collective agreement for nurses working 12-hour length shifts states that the employee will take two breaks, each of not less than half an hour. The meal breaks should be spaced as near as possible to be at regular intervals. It would be usual for a first break of 30 minutes to be taken at around 11 pm then a second 30-minute break at around 3 am.</p> <p>It is not clear whether it was customary in ward [...] for staff to combine both their 30-minute breaks into a single hour-long break, or whether this was done by individual preference. In taking a 1-hour break, RN [D] would have had to rely on her colleagues to perform at least one “round” of observing all her patients.</p> <p>Handover</p> <p>RN [D]’s patient notes at 11.20 pm described care given to [Baby A] before she went on her break and that she handed his care over to the remaining staff.</p> <p>In her statement, RN [D] outlined that her handover of [Baby A] to the two midwives [RM G] and [RM H] included (para 37)</p> <ul style="list-style-type: none"> • That [Baby A] was the only patient who needed to be checked while she was on her hour-long break • That [Baby A]’s feed and cares were done at 11.30 pm • That [Baby A] had settled with no spilling. • Information about [Baby A]’s position in the incubator • That a squeaking door ajar to reduce the risk of disturbance to [Baby A] and his mother <p>A handover of observations for opioid withdrawal was not specifically mentioned in the progress note or the statement. The observation chart (CR5664) showed recordings at 7 pm following the feed at 6.30 pm, and again at 9.30 pm following the feed at 9 pm.</p> <p>The time from [Baby A]’s 11.30 pm feed and being settled into the incubator until he was found unresponsive at 1.35 am was approximately 2 hours. A reasonable expectation for when [Baby A] might have been checked was 30–60 minutes following the feed so that his opioid withdrawal observation could be completed while he was settled. This should have occurred at between midnight–12.30 am and again between 1–1.30 am.</p> <p>Given that it was nighttime, [Baby A]’s mother was sleeping, [Baby A] was exhibiting possible signs of opioid withdrawal, the</p>
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	<p>presence of an orogastric tube and phototherapy, [Baby A] should have been checked sooner. As a minimum standard, checking a patient each hour is considered usual and expected practice in a ward environment.</p> <p>The Auckland policy document Substance Use in Pregnancy and Postnatal Period — Care of the Woman and Baby (ADHB, 2020 p.4) outlines that the baby will be observed for signs of opioid withdrawal (Neonatal Abstinence Syndrome — NAS) for a minimum of 3–5 days, and that observations will occur every 3–4 hours at 30–60 minutes following each feed. The guidance outlines that NAS is more common in babies born to opioid dependent women, and likely to be apparent in the 24–72 hours after birth (2020 p.7). [Baby A] was within the period where signs of withdrawal were most likely to be seen, and in my opinion, this was highly relevant to the handover prior to RN [D]’s meal break.</p> <p>Starship Hospital guidance Drug dependency — infants born to drug dependent mothers (2018) tables signs and symptoms of withdrawal. At various times [Baby A] was exhibiting some of these signs as evidenced by the CR5664 observation chart and nursing progress notes including:</p> <ul style="list-style-type: none"> • Tremors • Vomiting • Sneezing • Respiratory distress <p>The guidance requires the CR5664 score sheets to be kept in the office and maintained regularly. It would be reasonable to expect the observation sheet including the latest score to have been handed over by RN [D].</p> <p>The likelihood of a different outcome for [Baby A] had he been checked earlier following RN [D] going on her break cannot be known.</p> <p>Workload and acuity</p> <p>In her statement (para 39), RN [D] described returning from her break and being informed that her colleagues had been too busy to check on [Baby A]. It was possible that either the acuity on the ward had escalated during that time, preventing normal patient checks from being carried out, or the handover had been insufficiently detailed for the midwives to prioritise checking of [Baby A].</p>
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	<p>A variance indicator score (VIS) can help determine whether the workload was overwhelming the nursing/midwifery resource available (Safe Staffing Healthy Workplaces Aotearoa, 2024). On the night in question, there was no VIS submitted, suggesting that the workload at the time prior to [Baby A] being found unresponsive was manageable.</p> <p>If overwhelming workload was a factor driving patient care rationing, this would most likely have been evident in the care hours variance — the difference between the nursing and midwifery clinical hours available and the patient care hours required. A clinical acuity tool called TrendCare is used to determine the care hours variance. On the night in question, there was a 6 hour and 13-minute positive care hours variance. In other words, the acuity tool indicated that there were surplus hours available to provide the patient care required.</p> <p>In addition, there was no shift note written in the TrendCare acuity tool on the night of [Day3 – Day4] to indicate any additional factors that were contributing to risk or acuity in Ward [...].</p>
<p>Was there a departure from the standard of care or accepted practice?</p> <ul style="list-style-type: none"> • No departure; • Mild departure; • Moderate departure; or • Severe departure. 	<p>Mild departure</p> <p>Based on further information from RN [D], who has indicated that she requested to RM [G] that [Baby A] be checked while she was on her break, I alter this finding to no departure.</p>
<p>How would the care provided be viewed by your peers? Please reference the views of any peers who were consulted.</p>	<p>My peers would consider that fundamental aspects of care were missed in the handover.</p> <ul style="list-style-type: none"> • The instruction to check [Baby A] lacked detail about opioid withdrawal symptoms • It was not clear which of the two midwives had assumed responsibility for checking [Baby A] during RN [D]’s break • There was no evidence of a time being given for the next observation to be carried out, even though this ought to have occurred within an hour of the 11.30 pm feed • There was no evidence that [Baby A]’s condition relating to possible opioid withdrawal symptoms was discussed at this handover prior to RN [D]’s break, even though he was

	<p>showing some possible signs and was in a period of known risk.</p> <p>In coming to this conclusion, I consulted with two experienced RNs about what would be reasonably expected from a handover prior to a nurse's meal break. These RN work with sick infants and are considered role models of good practice.</p>
Please outline any factors that may limit your assessment of the events.	-
Recommendations for improvement that may help to prevent a similar occurrence in future.	<p>Care of infant with drug withdrawal</p> <ul style="list-style-type: none"> • Review the form CR5664 <ul style="list-style-type: none"> ○ Consider adding a key for the timing and frequency of observations ○ Consider adding instruction about when to ask for review/escalate care ○ Clarification of threshold for admission to NICU • Implement auditing of form completion • Provide ongoing education and support for medical and nursing staff who use this form <p>Teamwork, safety huddles and breaks</p> <ul style="list-style-type: none"> • A script for patient handover at breaks to ensure that the patient's condition is understood and identification of observations that are due • Implement a Safety huddle part way through each shift to update changes in patient condition and review individual nurse/midwife workloads. • Review expectations about when breaks occur and how patient care is shared amongst RNs/RMs.
<p>2. Whether RN [D]'s decision not to activate the emergency bell when she found [Baby A] unresponsive was appropriate in the circumstances, considering RN [D]'s rationale that she did not want to wake [Baby A]'s mother and wanted to remain fully focussed on attending to [Baby A].</p>	
List any sources of information reviewed other than the documents provided by HDC:	<p>ANZCOR Guidelines (2023). Paediatric basic life support. Accessed 24/03/2024. Guideline 12.1 – Paediatric Basic Life Support (PBLs) for health professionals (anzcor.org)</p>

Advisor's opinion:	<p>In my opinion, RN [D] followed acceptable practice in raising the alarm as she took [Baby A] to the resuscitation area, rather than raising the alarm from [Baby A]'s room.</p> <p>RN [D]'s priority at this time was [Baby A]. While any parent or caregiver has every right to know what was happening, and to have an option to be closer to their child, supported and informed throughout the resuscitation, it was right not to lose vital seconds wakening [Ms A], and to have another member of staff delegated to do this.</p>
What was the standard of care/accepted practice at the time of events? Please refer to relevant standards/material.	<p>On finding [Baby A] unresponsive in his incubator, RN [D] did not raise the alarm from the bedside, and instead took him from the room, and raised the alarm while walking swiftly to the nursery where the emergency equipment was located.</p> <p>When RNs/RMs are undertaking training for CPR in a simulation laboratory, it is usual to simulate pushing a call bell 3 and shouting for help to signal a clinical emergency to other staff on the ward. RN [D] did not do this and instead took [Baby A] from the room, raising the alarm as she moved.</p> <p>In clinical practice, it is not unusual for RNs who work with infants and small children to carry the unresponsive infant or child to a resuscitation area where there is resuscitation equipment ready and more space to work.</p> <p>The ANZCOR resuscitation guidance for health professionals who find an unresponsive infant or child supports both options: either calling for help and commencing CPR, or carrying the infant or child while calling for help:</p> <p><i>“A single rescuer encountering an unwitnessed collapse of an infant or child should shout for help then start CPR immediately. If help has not arrived within 1 minute, the rescuer should go to get help. To minimise interruptions to CPR, it may be possible for the rescuer to carry the infant/ small child with them while summoning help” ANZCOR, 2023 P5–6</i></p> <p>RN [D]'s priority was to do everything she could to initiate resuscitation of [Baby A]. In my opinion, it was appropriate that further time was not lost in wakening [Ms A]. Staff subsequently wakened [Ms A] and kept her informed and supported during and following the period that the resuscitation was taking place.</p>
Was there a departure from the	No departure

Names have been removed (except Health New Zealand Te Toka Tumai Auckland, Auckland Hospital and the expert advisors on the case) to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

<p>standard of care or accepted practice?</p> <ul style="list-style-type: none"> • No departure; • Mild departure; • Moderate departure; or • Severe departure. 	
<p>How would the care provided be viewed by your peers? Please reference the views of any peers who were consulted.</p>	<p>In preparing this opinion, I have consulted with two senior RNs who have had clinical experience with infant resuscitation. Their opinion is that on finding an unresponsive infant it would be deemed reasonable to “scoop and run” to a resuscitation area where equipment, lighting space and a clinical emergency call button is usually located. I find that RN [D]’s action on this point to be consistent with what is deemed reasonable and good practice.</p>
<p>Please outline any factors that may limit your assessment of the events.</p>	<p>It is difficult to ascertain whether or not there was a delay in raising the clinical emergency alarm.</p> <p>In her statement (para 39) RN [D] estimated her return from break to be between 0115 and 0130 hours. Her recollection was that on hearing that [Baby A] had not been checked by the two midwives, she went to check him at 01.35 am.</p> <p>The Resuscitation note in [Baby A]’s clinical notes records the Code Blue resuscitation call as 0148 hours.</p> <p>I am unable to determine:</p> <ul style="list-style-type: none"> • Exactly when RN [D] checked [Baby A] on returning from her break • Whether RN [D] delayed raising the alarm • Whether there was a delay in another staff member activating the code blue response
<p>Recommendations for improvement that may help to prevent a similar occurrence in future.</p>	<p>I have nothing to add here.</p>
<p>3. Whether RN [D]’s clinical management of [Baby A] after finding him unresponsive was appropriate in the circumstances.</p>	

List any sources of information reviewed other than the documents provided by HDC:	ANZCOR Guidelines (2023). Paediatric basic life support. Accessed 24/03/2024. Guideline 12.1 – Paediatric Basic Life Support (PBLS) for health professionals (anzcor.org)
Advisor’s opinion:	I find that the record of RN [D]’s clinical management of [Baby A] on finding him unresponsive and initiating a clinical emergency met with the expected standard of care. RN [D] followed the steps for paediatric resuscitation outlined by ANZCOR guidelines (2023).
What was the standard of care/accepted practice at the time of events? Please refer to relevant standards/material.	<p>ANZCOR guidelines for a paediatric basic life support including infant resuscitation outline the following sequence of actions for the first responder:</p> <ul style="list-style-type: none"> • Health professional to establish own safety • Check responsiveness • Send for help • Open the airway • Check breathing and give two ventilations if breathing is absent or abnormal • If the infant or child is not breathing commence CPR. <p>In her statement RN [D] described her initial activation of the emergency response (para 40–42)</p> <ul style="list-style-type: none"> • RN [D] ascertained responsiveness by administering two sternal chest rubs to [Baby A], who remained unresponsive. • Rather than sending for help, RN [D] took [Baby A] to the resuscitation nursery, calling for help to activate a “full neonatal code” on the way there. • While still in [Baby A]’s room, she cleared [Baby A]’s airway of secretions and removed the orogastric tube, which was protruding from [Baby A]’s mouth. It was not recorded if suction was used to clear secretions. • It was not recorded when ventilations were first attempted. • On continuing to the resuscitation nursery RN [D] attempted to perform chest compressions. <p>ANZCOR guidance for commencing ventilations is that two initial breaths are provided before chest compressions are commenced.</p>

	<p>If rescuers are unable or unwilling to provide ventilations, they should at least perform compressions.</p> <p>I find that the record of RN [D]'s clinical management of [Baby A] on finding him unresponsive and initiating a clinical emergency met with the expected standard of care.</p> <p>RN [D] had completed Level 4 Immediate Responder training certification including infant CPR yearly until May 2018. The COVID-19 pandemic caused postponement of staff study days. She next completed recertification in November 2020.</p>
<p>Was there a departure from the standard of care or accepted practice?</p> <ul style="list-style-type: none"> • No departure; • Mild departure; • Moderate departure; or • Severe departure. 	No departure
<p>How would the care provided be viewed by your peers? Please reference the views of any peers who were consulted.</p>	<p>In preparing this opinion I consulted with an experienced Nurse Educator whose role it is to teach infant and paediatric CPR.</p> <p>RN [D]'s clinical management of the emergency response met an acceptable standard of practice.</p>
<p>Please outline any factors that may limit your assessment of the events.</p>	-
<p>Recommendations for improvement that may help to prevent a similar occurrence in future.</p>	<p>These recommendations are directed at the ward and organisation rather than directly to RN [D]:</p> <p>Emergency Simulation Learning in the work environment</p> <p>Although the evidence suggests that the initiation of resuscitation met accepted standards, it is my recommendation that all staff who work in this area engage in emergency simulation training. This enables staff to become familiar with emergency response</p>

	<p>management in their real work environment (rather than a CPR learning lab).</p> <p>Simulation has the added benefit of determining whether there is missing or faulty equipment. If training can involve all disciplines (midwives, doctors, nurses, health care assistants and ward clerks) is even more useful for providing experience about how each role works together in a simulated activity that is as real as possible.</p> <p>Regular emergency equipment checks</p> <p>At the time of the resuscitation, the Panda resuscitation table and oxygen cylinder were found to be not fully functioning when [Baby A] was brought to the nursery. Daily equipment checks should be performed and regularly audited to ensure all equipment is ready for use.</p>
<p>4. Any other comments that you wish to make regarding the care provided to [Baby A] by RN [D].</p>	
<p>List any sources of information reviewed other than the documents provided by HDC:</p>	<p>Te Whatu Ora Te Toka Tumai Auckland, (2023). Kōrero Mai — Talk to Me. https://adhb.health.nz/patients-visitors/patient-support/korero-mai/. Accessed 04/04/2024</p> <p><u>Starship Clinical Guidelines. (2019). Enteral feeding of the neonate. Accessed 13/04/2020. Enteral Feeding of the Neonate (starship.org.nz)</u></p> <p><u>Lippincott procedures, New Zealand Instance (2024). Nasogastric or orogastric tube insertion, neonate. Accessed 11/04/2024. Lippincott® Solutions (lww.com)</u></p> <p><u>Lippincott procedures, New Zealand instance (2024). Nasogastric tube insertion, pediatric. Accessed 11/04/2024). Lippincott® Solutions (lww.com)</u></p> <p><u>Lippincott procedures, New Zealand Instance (2024). Safe sleep management, infant. Accessed 11/04/2024. Lippincott® Solutions (lww.com).</u></p>
<p>Advisor’s opinion:</p>	<p>[Ms A]’s account of the care she received from RN [D] suggests that a trusting therapeutic relationship failed to develop. She felt hurried, worried and unsupported. She lacked an avenue to raise concerns about aspects of her and [Baby A]’s care. Her husband had not been allowed to stay to support her in hospital because of COVID-19 restrictions.</p>

	<p>There were different accounts from RN [D] and [Ms A] as to whether [Ms A]’s consent was gained prior to the insertion of the orogastric feeding tube on the evening of [Day3].</p> <p>If consent was not obtained, I would consider this to be a breach of the trusting relationship that parents should have with staff who care for their children.</p> <p>The decision to place an orogastric rather than a nasogastric feeding tube on the evening of [Day3] was unusual, as [Baby A] no longer had respiratory symptoms.</p> <p>I am not able to ascertain the nature and length of time that hand restraints might have been applied to [Baby A]’s hands following insertion of the orogastric tube on the evening of the [Day3] . If [Baby A]’s hands were tied to the incubator, this would not be considered good or usual nursing practice.</p> <p>I note that Auckland City Hospital has the Kōrero Mai — Talk to Me escalation process in place which enables patients and their families to escalate concerns when they feel they are not being listened to. This tool may not have been available [at the time].</p> <p>Amendment of opinion in the context of further evidence</p> <p>Again, I thank RN [D] for providing additional and detailed information in her statement dated 23 May 2024.</p> <p>RN [D] has described her belief that she built a positive relationship with [Ms A] by providing options for care, enabling informed decision-making and checking her and [Baby A] regularly.</p> <p>RN [D] described the steps she took with [Ms A] to gain consent to insert [Baby A]’s feeding tube. She noted consciously repeating and clarifying information, and negotiating when the procedure would take place, giving [Ms A] the option to be present or not (para 46). RN [D] was aware that [Ms A] had taken her medication (para 36, 46, 50) and took steps to communicate carefully, presumably because of the possible effect of the medication on decision-making as well as [Ms A]’s known anxiety about being in hospital. According to this information, there was no departure from the expected standard of care.</p> <p>RN [D]’s account differs from how [Ms A] remembered the care. [Ms A] described</p> <ul style="list-style-type: none"> • Feeling as if the feeding and burping of [Baby A] was rushed
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	<ul style="list-style-type: none"> • That [Baby A] was taken from their room and returned with an orogastric tube that she had not agreed to • That [Baby A]’s arms were tied to the incubator with bandages <p>RN [D] has categorically confirmed that she did not restrain [Baby A]’s hands in the incubator or at any time during the two 12-hour shifts that she cared for [Ms A] and [Baby A] (May 2024, para 51–55).</p> <p>I am unable to determine why there is a difference between the accounts given by [Ms A] and RN [D].</p> <p>In light of the additional information, I have amended my findings.</p>
<p>What was the standard of care/accepted practice at the time of events? Please refer to relevant standards/material.</p>	<p>Consent to insert the feeding tube</p> <p>There was a difference in the accounts from RN [D] and [Ms A] regarding consent for insertion of [Baby A]’s orogastric feeding tube.</p> <p>[Ms A] (Statement p.11) described not knowing what was happening to [Baby A] when he was taken away from their room. On his return he had a “tube down his mouth” despite her assertion that “we said we didn’t want the feeding tube”.</p> <p>RN [D]’s (Statement para 30) described having a conversation about feeding options with [Ms A], where [Ms A] agreed to insertion of an orogastric tube, and opted not to have [Baby A] with her when the tube was inserted.</p> <p>It would be considered normal practice to gain verbal parental consent prior to inserting a feeding tube. If [Ms A] was reluctant to have [Baby A]’s feeding tube inserted, I would have expected RN [D] to have sought support from the RN/RM in charge of the shift and the medical team to help explore all available options with [Ms A].</p> <p>It was unusual to have opted for an orogastric tube, when nasogastric would have been the tube of choice. I would have expected clinical staff to have guided [Ms A] about the best tube for [Baby A].</p> <p>I note that the Starship guidance for enteral feeding of the neonate (2019) does not include a step for gaining consent for tube placement. Lippincott (2024) includes gaining consent as part of the procedure for neonates, infants, and children.</p>

	<p>The Starship guidance is that a nasogastric tube would be preferred over an orogastric tube.</p> <p>Restraint</p> <p>[Ms A] described [Baby A]’s arms being tied to the incubator following the insertion of the orogastric tube on [Day3] (p. 11–12). She requested that [Baby A] “was not left like this” and recounted that the staff member convinced her that the restraint was necessary.</p> <p>RN [D]’s account in her statement (para 32) of settling [Baby A] to bed following the insertion of the orogastric tube at 10.30 pm did not include any detail about restraining his hands.</p> <p>Following the feed at 11.30 pm on [Day3], RN [D] described [Baby A]’s hands being “by his sides” and that there was nothing in his incubator that he could play with (para 36). At this feed [Ms A] was asleep.</p> <p>If [Baby A]’s hands were tied to the incubator, RN [D]’s rationale might have been to prevent him from dislodging the orogastric tube. Orogastric tubes are more difficult to secure under the lip as the area becomes wet with saliva and the infant can move the tube with his/her tongue. A nasogastric tube is secured across nose and cheek and generally considered easier to keep in place. I would not consider restricting an infant’s arm movement to protect an orogastric tube to be good nursing practice, or practice that should be modelled to parents or other staff.</p> <p>General guidance for infant safe sleep is that any extra equipment is removed from the infant’s cot and positioning devices are not used (Lippincott, 2024). It is my opinion that a restrained infant could possibly wriggle into an unsafe sleeping position.</p>
<p>Was there a departure from the standard of care or accepted practice?</p> <ul style="list-style-type: none"> • No departure; • Mild departure; • Moderate departure; or • Severe departure. 	<p>If failure to gain verbal consent occurred, it would be a moderate departure from accepted practice.</p> <p>RN [D] has given a detailed account of the steps she took to gain consent (May 2024). If consent was obtained as RN [D] described, there was no departure from the accepted standard of care.</p> <p>If use of arm restraints occurred, this would be a moderate departure from accepted practice.</p> <p>RN [D] has given an assurance in her May 2024 statement that no arm restraints were used, in which case there was no departure from accepted practice.</p>

	I am unable to determine why there is a difference between the accounts given by [Ms A] and RN [D].
How would the care provided be viewed by your peers? Please reference the views of any peers who were consulted.	<p>My peers would consider a failure to gain consent for insertion of a feeding tube and restraining an infant's hands as poor and unusual practice.</p> <p>My peers would consider the choice to insert the orogastric tube instead of a nasogastric tube unusual because these tubes are harder to keep secure. Orogastric tubes are usually used for babies who need respiratory therapy. An infant requiring respiratory therapy would likely be nursed one-to-one or in a line-of-sight area.</p> <p>My peers would consider the use of hand restraints to be poor and unusual practice, and inconsistent with safe infant sleep principles.</p> <p>In preparing this opinion I consulted with a senior RN who has worked extensively with sick infants as a Clinical Nurse Specialist.</p>
Please outline any factors that may limit your assessment of the events.	-
Recommendations for improvement that may help to prevent a similar occurrence in future.	Promote the use of the Kōrero Mai — Talk to Me process for escalating parental concerns.

Appendix 1. Table showing scoring for opioid withdrawal with adjustments.¹

	Score	Values assigned in CR5664 chart at 2130 hours [...]	Score adjusted to	Reason for adjustment
High pitched cry	2	✓	2	Numerical value
sleeps < 3hours after feeding	1	1	1	
Fever (37.5–38°C)	1	36.7	-	-
Nasal stuffiness	1	1	1	-
Nasal flaring	2	1	2	Numerical value corrected
Respiratory rate > 60/min	1	70	-	Should have used the respiratory rate with retractions
Respiratory rate > 60/min with retractions	2	X2 suctioned	2	Numerical value Progress notes described work of breathing
Poor feeding	2	OGT	2	Numerical value
Regurgitation	2	Left blank	-	-
Projectile vomiting	3	spill	3	[Ms A]'s statement, progress notes and rooming in chart note frequent and projectile vomiting
Total score		5	13	

¹ Health NZ disagreed with RN Conway's scoring in this table.

Te Whatu Ora

Question 1: Any comments that you wish to make about the fact that [Baby A] was not checked on by RM [G] and RM [H] during RN [D]'s hour-long break.	
List any sources of information reviewed other than the documents provided by HDC:	<p>Forde-Johnston C. Intentional rounding: a review of the literature. Nursing Standard. 2014 Apr 15;28(32):37–42. doi: 10.7748/ns2014.04.28.32.37.e8564. PMID: 24712630.</p> <p>Health New Zealand Te Whatu Ora. (2023) Checking in (Intentional Rounding) Procedure — Nursing. Accessed 06/04/2024. https://prism.cdhb.health.nz/site/policies/SitePages/Policy%2520View.aspx?ppid=2406272</p>
Advisor's opinion:	<p>In my opinion, RM [G] and RM [H] should have made sure that [Baby A] was checked when RN [D] was on her hour-long break.</p> <p>If the workload in the ward was unmanageable or unsafe, I would expect the Midwife in Charge/Shift Coordinator to have taken action to ask for help, for example:</p> <ul style="list-style-type: none"> • Elicit help from any available resource or roving staff • Make a request for help to a Duty Nurse Manager • Call RN [D] back from her break <p>The available information is that there was a positive care hours variance on the night of [Day3-Day4] and no Variance Indicator Score had been submitted to suggest that the workload was overwhelming or unsafe.</p> <p>I would also have expected the Midwife who was coordinating the shift to have supported RN [D] and [Ms A] with the clinical decision to reinsert the feeding tube and provide guidance as to the choice of tube (orogastric versus the nasogastric).</p> <p>Additional comment in the context of further advice supplied by Dr [...] on 12 July 2024</p> <p>Checking RN [D]'s patients</p> <p>It is my opinion that [Baby A] ought to have been checked once (as a minimum) during RN [D]'s hour-long break. [Baby A] was in an incubator under lights, he was premature, he was being observed for opioid withdrawal, and his mother was sleeping heavily. The acuity or workload on the ward was not high and would not have prevented the remaining staff from being able to do this. The</p>

	<p>acuity level was demonstrated both by the positive care hours variance, and staff statements.</p> <p>Different accounts of the handover prior to RN [D]’s break</p> <p>The accounts of the handover are different. Midwives [G] and [H] recollect that the handover they received from RN [D] was that her patients were safe and did not need anything. This indicated there were no specific tasks required during the hour-long period of the break. RN [D] provided a further statement dated 23 May 2024 (para 15–16), that she handed over her patients to RM [G], who was Charge Midwife Coordinator, in the presence of RM [H], and specifically requested that [Baby A] was checked during her break.</p> <p>I think it would be reasonable to expect that RN [D]’s patients were observed during the time between her handover at 12:15 pm and her return at approximately 1:30 am, even in the absence of a specific request to do this. On a night shift this can simply involve standing in the doorway of a patient room to observe</p> <ul style="list-style-type: none"> • That the patient is in a safe position • That the chest is rising and falling • Listening for audible breath sounds • That equipment is working such as the incubator and phototherapy lights <p>Based on [Baby A]’s medical history, the remaining staff should have checked [Baby A] during RN [D]’s break.</p> <p>Support and management of the ward workload</p> <p>Further advice from Dr [...] supplied on 12 July 2024 disputed that RN [D] required a buddy or additional support because she was familiar with the clinical work and the physical environment. I agree that the support that RN [D] required would have been different from a staff member who was completely unfamiliar with the ward. However, this does not remove the responsibility that the other staff on shift had to provide support, allocate a fair and manageable workload and check in with RN [D] during the shift.</p> <p>RN [D] was not a permanent member of ward [...] staff and may not have been privy to the same memos and communication about changes to practice as permanent staff. In my opinion, the Charge Midwife Coordinator should have been aware of the decision to reinsert [Baby A]’s feeding tube and ought to have been available to offer support to RN [D] and [Ms A].</p>
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	<p>The specialty skill of a bureau nurse is being able to work in a variety of clinical locations, but this does not mean that this nurse will have the depth of knowledge of a specialty area of practice or the same collegial relationship that permanent members of a team have. For this reason, my opinion remains that RN [D] should have been working with a named buddy who checked in with her during the shift about her patients.</p> <p>I note the improvements that have been implemented on the wards following [Baby A]’s death including a safety briefing at the commencement of each shift, implementation of Korero Mai for escalation of concern, having an identified Clinical Midwife Manager on every shift and establishment of a unit for later pre-term transitional babies.</p> <p>General comment about documented care plan</p> <p>A midwifery/nursing care plan document was not included in [Baby A]’s clinical record in keeping with normal practice in this ward. Clinical progress notes were used for planning care and documenting outcomes ([Health NZ], email to HDC office August 2024). It is my opinion that a written care plan might have aided communication between midwives and nurses about [Baby A]’s feeding and other individualised aspects of his care. A care plan might have included detail about the rate at which [Baby A] could best tolerate his feed and the best method to help him bring up wind following the feed. It might also have included the parts of [Baby A]’s care that his parents wanted to participate in, demonstrating negotiated care between staff and family.</p> <p>[Ms A]’s statement included</p> <ul style="list-style-type: none"> • an observation that there was a high turnover of different Midwives caring for [Baby A] • Her preference for [Baby A] to be fed by bottle or finger suck • A comment about burping [Baby A], which she and her husband had spent time doing after feeds, and indicating that she and her husband wanted to do as much for [Baby A] as they could • Her perception that tube feeding was selected because it was a faster option than an oral feed <p>Written care plans enable discussion between the Nurse or Midwife and the caregivers about the individualised plan of care. A care plan is updated every shift, and aids communication about prospective care. [Baby A]’s rooming record provided a retrospective account of feeding, but no substantial details about</p>
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	<p>how the next feed could best be given including the length of feed, winding/burping and parent participation.</p> <p>If a written care plan with specific feeding instructions had been available in [Baby A]’s clinical record, this might have assisted all the staff who were caring for [Baby A], including RN [D], with administering the feed at a rate that [Baby A] was able to tolerate.</p>
<p>What was the standard of care/accepted practice at the time of events? Please refer to relevant standards/material .</p>	<p>Intentional rounding</p> <p>The concept of intentional rounding (Forde-Johnston, 2014) is a well-known practice in nursing and midwifery whereby regular checks are carried out to manage and improve fundamental care needs and patient safety. This concept was adopted by hospitals over the last decade, and written into policy ([Health NZ], 2023).</p> <p>Even in the absence of a specific request to check [Baby A], I would have expected the staff who remained on the ward when RN [D] was on her break to have looked in on [Baby A] and his mother at least once.</p> <p>Given [Baby A]’s increased vulnerability (orogastric feeding tube, jaundice and phototherapy treatment, possible signs of opioid withdrawal), the fact that his mother was sleeping heavily, and that RN [D]’s break was of an hour’s duration, it would be reasonable to expect at least one check. [Baby A] was also due for written opioid withdrawal observations.</p> <p>Expectations about supervision and support of bureau staff</p> <p>RN [D] was based in the Nursing Bureau or pool at Auckland Hospital at the time of [Baby A]’s admission. While she had relevant nursing experience for caring for an infant in ward [...], she was not a permanent member of the team. I would expect a bureau midwife/ nurse to be assigned a buddy midwife/nurse for the shift, or to be working closely with the midwife/nurse coordinator of the shift.</p> <p>Even in the absence of a direct request to carry out [Baby A]’s observations for opioid withdrawal, I would have expected the Midwife in Charge/Shift Coordinator to be aware of [Baby A]’s vulnerability.</p> <p>Possible high acuity and workloads on Ward [...]</p> <p>It appeared unlikely that acuity on Ward [...] was higher than the available midwifery/nursing resource on the night of [Day3-Day4]. An adverse Variance Indicator Score had not been submitted. The care hours variance was 6 hours and 13 minutes in surplus.</p>

	<p>It was however also possible that RN [D]'s workload was higher or more complex than she could reasonably manage without additional help.</p> <p>[Ms A]'s statement refers to several examples of care that was hurried</p> <ul style="list-style-type: none"> • A lack of checks at night (p. 8) • Missed or incomplete expressing of breast milk because of a lack of personnel to do this (p. 8) • Requests for a brush to clean the breast pump were not met (p9) • Management of [Ms A]'s leaking catheter (p. 9) • Feeling that the staff member on the evening of [Day3] was in a hurry with [Baby A]'s feed and burping (p. 11) • The same staff member missing [Ms A]'s observations (p. 11) • Failure to waken [Ms A] to express (p. 12) <p>I would expect a Shift Coordinator to take steps to check that each staff member had a manageable workload and make adjustments. I would also expect that a shift coordinator would escalate increased ward acuity (if this was in fact the case) to a Duty Nurse Manager.</p>
<p>Was there a departure from the standard of care or accepted practice?</p> <ul style="list-style-type: none"> • No departure; • Mild departure; • Moderate departure; or • Severe departure. 	<p>Mild departure</p>
<p>How would the care provided be viewed by your peers? Please reference the views of any peers who were consulted.</p>	<p>My peers would consider that a lack of teamwork and accountability was demonstrated by the staff on the shift.</p> <p>In preparing this opinion I have consulted with senior nurses who have extensive experience in clinical practice and the management of nursing resource to meet patient acuity.</p>

Please outline any factors that may limit your assessment of the events.	It is unclear which of the staff on duty was the Shift Coordinator on the night of [Day3-Day4].
Recommendations for improvement that may help to prevent a similar occurrence in future.	<p>Undertake a review of ward expectations and practice for structured regular patient rounding.</p> <p>Undertake a review of ward expectations for support and supervision of bureau staff including:</p> <ul style="list-style-type: none"> • How they are welcomed and orientated to the ward • Careful patient allocation of the bureau staff patient load • Consideration of a team-based model of care • Provision of a named midwife/nurse buddy • Clarification and support about specific elements of patient care through regular checking in
<p>Signature: </p>	
Name: Rebecca Conway	
Date of Advice: 22 April 2024	
Date of further advice: 5 August 2024'	