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Neutral Citation Number: [2023] EWFC 65

Case No: ZE22C50109

IN THE EAST LONDON FAMILY COURT

11, Westferry Circus,
LONDON,
E14 4HD

Date: 3 May 2023

Before :

HER HONOUR JUDGE MADELEINE REARDON

Between :

The London Borough of Havering

Applicant

- and -

Respondents

A mother

A father

R and S, children, by their children's guardian

Mr Little for the local authority
Ms Badejo for the first respondent mother
Ms James for the second respondent father
Ms Cheetham for the children

Hearing dates: 17 – 21 April 2023

JUDGMENT

HER HONOUR JUDGE MADELEINE REARDON :

Introduction

1. This judgment is delivered at the conclusion of a fact-finding hearing listed to determine allegations of non-accidental injury to a young baby, S, born in March 2022. S's older sibling, T, is also the subject of these proceedings. He is aged 3.
2. The local authority is LB Havering, represented by Richard Little.
3. S's mother is represented by Bibi Badejo and his father by Rachael James. S and T are represented by Lucy Cheetham, through their children's guardian, Kristin McKenzie.
4. The hearing took place over five days and was attended, save that the medical experts gave evidence remotely and the children's guardian, who has relocated abroad since this case commenced, also attended remotely.
5. I am grateful to all the advocates for the enormous assistance they have given me through their preparation and presentation of this difficult case.

Background

6. The parents are in their 30s. Both are employed, although the mother was on maternity leave at the relevant time. They have been in a relationship for over 10 years. They live together in a three-bedroom maisonette in East London.
7. Until the events which triggered these proceedings, the family was not known to child protection services. T had had two attendances at A&E for minor illnesses/ injuries. He was in nursery for two days each week where his attendance was very good and he was described by staff as a happy, settled, well-cared for little boy.
8. S was born by normal vaginal delivery. He required resuscitation through inflation breaths, but not CPR. He was discharged home the day after his birth.
9. Midwife notes from a visit when S was 11 days old read, "very content and happy baby after feeding and mother observed to be confident and bonded well with baby".
10. On the morning of 23 April 2022, when S was about five weeks old, he was brought to A&E by his mother, the father following soon after with T. The parents gave a history of noisy breathing and unsettled behaviour since the previous night and described a "crackling" sound in S's chest.
11. X-rays carried out that day revealed multiple fractures to S's right side posterior ribs. A skeletal survey conducted on 26 April confirmed acute fractures to the right posterior 4th, 5th, 6th, 7th, 8th and 10th ribs, and a healing fracture (with callus formation) to the left sided 8th posterior rib.
12. A follow-up skeletal survey on 5 May confirmed the rib fractures, and identified in addition an oblique fracture to the right humerus.
13. Fortunately S has made a full recovery from his injuries.
14. T underwent a child protection medical on 27 April. No injuries were found.
15. Neither parent was able to give an account of any event that could have caused the fractures. The opinion of the treating clinicians at the hospital, unsurprisingly, was that in the absence of an explanation there was a significant chance that the injuries had been caused non-accidentally. A referral was made to the local authority and a joint local authority/ police investigation was initiated. With the parents' agreement T went to stay with his maternal grandparents.

16. Both parents were interviewed by the police in the days following S's admission to hospital. As far as I am aware the police have taken no further action.
17. S remained in hospital until 6 May 2022, when he and T were placed in foster care with their parents' consent.
18. The local authority issued proceedings on 9 May 2022. At a hearing on 11 May I declined to make interim care orders on the grounds that both boys were in foster care with parental consent under CA 1989, s20, the parents were fully cooperative, and I did not consider that orders were necessary. On 25 May 2022, following a positive viability assessment of the paternal grandparents, the children moved to their care and I made interim care orders to ensure there was a robust safeguarding framework around what was, potentially, a more vulnerable family placement.
19. This was a clear single-issue case. At the first case management hearing on 25 May 2022 I listed it for a fact-finding hearing in the first available slot, which was at the end of November 2022. Unfortunately that fixture was lost due to the need for genetic testing of both parents (which had to be conducted by a laboratory in Germany) and a further specialist medical opinion following on from that testing. Thereafter the earliest date on which the hearing could be re-listed was in April 2023.
20. By September 2022 the paternal grandparents were struggling with the full-time care of both children and their relationship with the local authority had become difficult. In November 2022 the children moved to the care of their maternal grandparents, where they have remained. The maternal grandmother, Mrs N, had originally been joined as an intervener but after the medical evidence was received the local authority indicated that it no longer sought to place her in the pool of potential perpetrators, and she was discharged.
21. Throughout the proceedings the children have been having contact with their parents on four afternoons each week for 2 ½ hours, and on one day each weekend for five hours. Contact was initially professionally supervised but since June 2022 has been supervised by family members.

The findings sought and the positions of the parties

22. The local authority's primary position is that S's injuries were inflicted by one or both of his parents. The local authority does not suggest that either parent acted deliberately or maliciously. Its case is that the most likely cause of each injury was a build-up of anger or frustration on the part of one of the parents, leading to a momentary loss of control. The local authority's case is that there is insufficient evidence to identify which of the parents perpetrated the injuries.
23. The local authority also seeks a finding that the parents neglected their children on three separate occasions, identified by the parents themselves, when they were left together unsupervised in a room of the home. I had originally understood this finding to be sought in the alternative, in the event that I made a finding that S's injuries were caused during these periods, but having reviewed the threshold document during the course of submissions I see that this is in fact a free-standing allegation of neglect, which the local authority is seeking irrespective of my findings about the injuries.
24. The parents deny inflicting S's injuries. They each say that they were unaware that S had sustained any injury until the admission to hospital on 23 April 2022, and that they cannot identify with any certainty any occasion when any of the injuries occurred. There are two potential explanations for the injuries which have been put forward on their behalf, although neither is advanced as a positive case.

25. The first is that the injuries may have been caused by one or other of S's parents rolling onto him in bed (S slept in between his parents, in their bed). The second is that S may have been injured during one or more of the brief periods when he and T were left together unsupervised in the same room.
26. The children's guardian does not seek a positive finding. On her behalf, however, Ms Cheetham has drawn my attention to aspects of the evidence which the guardian considers to be of particular relevance. It is probably fair to say that the submissions on behalf of the guardian pointed towards a finding of inflicted injury; indeed, as I will explain later, Ms Cheetham suggested that at least one of the potential alternative explanations put forward on behalf of the parents was so unlikely that it could be definitively ruled out. Similarly, while careful to emphasise that the guardian was not seeking a finding against either parent, Ms Cheetham highlighted some of the evidence which might tend to suggest that the father rather than the mother was responsible, and reminded the court of the advantages of identifying a perpetrator where it is possible to do so.

The law

27. CA 1989, s31(2) reads as follows:

- (2) A court may only make a care order or supervision order if it is satisfied—
 - (a) that the child concerned is suffering, or is likely to suffer, significant harm; and
 - (b) that the harm, or likelihood of harm, is attributable to—
 - (i) the care given to the child, or likely to be given to him if the order were not made, not being what it would be reasonable to expect a parent to give to him; or
 - (ii) the child's being beyond parental control.

28. Where the facts relied on by the local authority to establish the threshold criteria are in dispute, the local authority must prove them. The court will take the following approach to the fact-finding process:

- a. The burden of proof is on the party which makes the allegation: in public law Children Act proceedings, the local authority.
- a. The standard of proof is the balance of probabilities: *Re B (Care Proceedings: Standard of Proof)* [2008] UKHL 35.
- b. The court may find only that something happened or that it did not happen. The law operates a binary system and there is no room for a finding that something 'might have' happened: *Re B* [2008] UKHL 35.
- c. The court must not reverse the burden of proof. If a respondent fails to prove an affirmative case they have set up by way of a defence, that does not of itself establish the applicant's case. In such circumstances the question for the court is not 'has the alternative explanation been proved?', but 'in the light of the possible alternative explanation, can the court be satisfied that the applicant has proved its case on the balance of probabilities?': *Re X (Children) (no 3)* [2015] EWHC 3651.
- d. Findings must be based on evidence, including inferences that can properly be drawn from the evidence, and not on suspicion or speculation. The court may, and should, take

into account the inherent probabilities of a potential scenario when determining whether or not an allegation is true.

- e. The court surveys a wide canvas. It must take into account all of the evidence, and consider each piece of evidence in the context of all the other evidence.
 - f. In particular, expert evidence must be considered in the context of all the evidence. Experts must confine their evidence to their own discipline. The role of the court is different from that of the expert. It is the judge and not the expert who makes the final decision: *A County Council v KD & L* [2005] EWHC 144 Fam.
 - g. It is essential that the court forms a clear assessment of the credibility and reliability of the lay witnesses. Their evidence is extremely significant and the court is likely to place considerable weight on their evidence and the impression it forms of them.
29. When considering inherent probabilities the court must take care to ensure that the focus remains on the evidence before it in the particular case. In *Re BR (Proof of Facts)* [2015] EWFC 41 Peter Jackson J, as he then was, said:

“4. Similarly, the frequency or infrequency with which an event generally occurs cannot divert attention from the question of whether it actually occurred. As Mr Rowley QC and Ms Bannon felicitously observe:

‘Improbable events occur all the time. Probability itself is a weak prognosticator of occurrence in any given case. Unlikely, even highly unlikely, things do happen. Somebody wins the lottery most weeks; children are struck by lightning. The individual probability of any given person enjoying or suffering either fate is extremely low.’

I agree. It is exceptionally unusual for a baby to sustain so many fractures, but this baby did. The inherent improbability of a devoted parent inflicting such widespread, serious injuries is high, but then so is the inherent improbability of this being the first example of an as yet undiscovered medical condition. Clearly, in this and every case, the answer is not to be found in the inherent probabilities but in the evidence, and it is when analysing the evidence that the court takes account of the probabilities.”

30. In *Re S (Split Hearing)* [2014] EWCA Civ 25 Ryder LJ said:

“19. The term ‘non-accidental injury’ may be a term of art used by clinicians as a shorthand and I make no criticism of its use but it is a ‘catch-all’ for everything that is not an accident. It is also a tautology: the true distinction is between an accident which is unexpected and unintentional and an injury which involves an element of wrong. That element of wrong may involve a lack of care and/or an intent of a greater or lesser degree that may amount to negligence, recklessness or deliberate infliction. While an analysis of that kind may be helpful to distinguish deliberate infliction from, say, negligence, it is unnecessary in any consideration of whether the threshold criteria are satisfied because what the statute requires is something different namely, findings of fact that at least satisfy the significant harm, attributability and objective standard of care elements of s 31(2) of the CA 1989.

20. The court's function is to make the findings of fact that it is able on the evidence and then analyse those findings against the statutory formulation. The gloss imported by the use of unexplained legal, clinical or colloquial terms is not helpful to that exercise nor is it necessary for the purposes of section 31(2) to characterise the fact of what happened as negligence, recklessness or in any other way.”

31. I am not sure I agree that the term “non-accidental injury” is a tautology: it seems to me that the word “injury” is capable of a neutral meaning when used, for example, to describe a fracture that has been caused accidentally. But the more important point is that the court must be careful to place an expert’s opinion that a fracture has been caused “non-accidentally” within the context in which it is offered. The expert is giving an opinion about causation, based on the nature of the injury and his or her clinical experience. The court’s role is not to categorise the injury, but to determine whether it is attributable to the care being given to the child by the parents not being what it would be reasonable to expect a parent to give. In making that determination the court must survey all the evidence, both expert and lay.
32. In cases where such a cause is alleged, the court may be presented by the child’s carers with one or more alternative explanations; or with no explanation at all. In all cases, and regardless of whether or not an explanation is offered, the local authority retains the burden of proof. The explanation, or lack of one, which is offered by the carers is a matter which the court may take into account provided that in doing so it does not reverse the burden of proof. In *Re BR (Proof of Facts)* Peter Jackson J said:

"[15] It would of course be wrong to apply a hard and fast rule that the carer of a young child who suffers an injury must invariably be able to explain when and how it happened if they are not to be found responsible for it. This would indeed be to reverse the burden of proof. However, if the judge's observations are understood to mean that account should not be taken, to whatever extent is appropriate in the individual case, of the lack of a history of injury from the carer of a young child, then I respectfully consider that they go too far.

[16] Doctors, social workers and courts are in my view fully entitled to take into account the nature of the history given by a carer. The absence of any history of a memorable event where such a history might be expected in the individual case may be very significant. Perpetrators of child abuse often seek to cover up what they have done. The reason why paediatricians may refer to the lack of a history is because individual and collective clinical experience teaches them that it is one of a number of indicators of how the injury may have occurred. Medical and other professionals are entitled to rely upon such knowledge and experience in forming an opinion about the likely response of the individual child to the particular injury, and the court should not deter them from doing so. The weight that is then given to any such opinion is of course a matter for the judge.

[17] In the present case, an adult was undoubtedly in the closest proximity to the baby whenever the injuries occurred and the absence of any account of a pain reaction on the baby's part on any such occasion was therefore one of the matters requiring careful assessment".

33. In the same case the court endorsed a list of “risk factors” and “protective factors” that might assist the court in putting the evidence before it in such a case into context. The risk factors include a history of domestic abuse; substance abuse; poor parent-child relationships and negative interactions; parental stress; lack of family cohesion; and poverty and other socioeconomic disadvantage. The protective factors include a supportive family environment; stable relationships; adequate finances and housing; and a network of community and family support. The Judge emphasised that in itself, the presence or absence of a particular factor proves nothing: “children can of course be well cared for in disadvantaged homes and abused in otherwise fortunate ones. Each case turns on its own facts.”

34. In this, as in all other cases where the cause of an injury is in dispute, the court must factor into its consideration of the evidence the possibility that the cause is unknown: *Re R (Care Proceedings: Causation)* [2011] EWHC 1715 Fam.
35. The threshold criteria may be met on the basis of a finding that one of a finite “pool” of persons has caused significant harm to a child, in circumstances where the court is unable to make a finding as to which of them has done so: *Re S-B* [2009] UKSC 17.
36. However, in such a case the court must take care not to reverse the burden of proof by considering in turn whether each member of the identified pool of perpetrators can be excluded. The burden of proof remains on the local authority at all times and it is for the local authority to show in the case of each potential perpetrator that there is a ‘likelihood or real possibility’ that he or she is responsible for the injuries.

The evidence

37. The bundle includes the witness statements of the parties and witnesses, medical evidence produced by treating clinicians and expert witnesses, and hospital, police and social work records. There has been no parenting assessment, because I determined at an early stage in the proceedings that this would not be necessary unless the threshold criteria were found to be met. There are, however, a number of assessments of wider family members in the bundle, which have added to the evidential picture.
38. I have watched videos produced by the parents. Some are family videos taken around the time of the relevant events; two further videos were taken more recently to demonstrate the amount of time it takes to take out the bins at the family home.
39. I heard oral evidence from the following witnesses:
 - a. Dr Adam Oates, a consultant radiologist;
 - b. Dr Patrick Cartlidge, a consultant paediatrician;
 - c. The mother;
 - d. The father;
 - e. Mrs O, a family friend;
 - f. Mrs N, the children’s maternal grandmother.

The medical evidence

40. The key expert medical evidence in this case has been provided by experts in two disciplines: a consultant radiologist, Dr Oates, and a consultant paediatrician, Dr Cartlidge.
41. Dr Oates and Dr Cartlidge are both well known to the Family Court. They are both highly sought-after in cases of this nature because each is known to be at the top of their field in their respective disciplines, and has a track record of providing the court with measured and reliable expert evidence. As expected, the evidence of each of them, both written and oral, was thorough, careful and balanced. I am satisfied that in this case the court has had access to expert evidence of the highest possible quality.
42. I have considered also the report of a similarly highly qualified and experienced geneticist, Dr Ian Ellis, which I will summarise briefly later in this judgment. Dr Ellis’s investigations were extremely thorough and he went to significant lengths to explore the potential significance of a genetic variant found during genetic testing of S. In the end no party has sought to suggest that S suffers

from any congenital condition which could have caused or contributed to the fractures he has sustained.

43. The evidence of the experts is contained in their written reports, the transcript of an experts' meeting which took place on 26 January 2023, and the oral evidence of both Dr Oates and Dr Cartlidge.

Timing of the injuries

44. The radiological evidence is the primary source of medical evidence as to the timing of S's injuries. On this issue Dr Cartlidge deferred to Dr Oates.
45. Dr Oates emphasised that radiological dating is not an exact science and can provide only a "broad estimation" of the date of an injury. In dating S's fractures he relied on his understanding of the literature, his own experience of interpreting "hundreds" of fracture radiographs, and his observations, in this case, of how the fracture healing responses evolved over the course of the imaging.
46. Dr Oates reviewed the chest x-rays carried out by the treating hospital on 23 April 2022, the results of the first ("Part 1") skeletal survey conducted on 26 April, and the results of the "Part 2" skeletal survey which was carried out on 5 May.
47. His unchallenged opinion as to the timing of the injuries was as follows:
 - a. Left rib fracture: this is likely to have been caused between 2 and 4 weeks prior to S's presentation to hospital, that is between 26 March and 9 April 2022. Dr Oates could not exclude the possibility that this was a birth injury (S was about five weeks old at the time of his admission to hospital) but thought this was highly improbable.
 - b. Right rib fractures: these showed no healing response at the time of the x-rays on 23 April or the Part 1 skeletal survey on 26 April. They were therefore relatively recent. They are likely to have been caused within 7 days of the admission to hospital.
 - c. Humerus fracture: This fracture did not show up on the first x-rays or the Part 1 skeletal survey. It was visible in the Part 2 skeletal survey. Dr Oates's view was that it was likely this fracture was present at the time of S's presentation to hospital but not visualised as there was no appreciable healing response, given the very recent nature of the injury. It also is likely to have been caused within 7 days of the admission to hospital.
48. Therefore the medical evidence strongly indicates that S suffered at least two traumatic events. The first, which caused the left rib fracture, probably took place between 26 March and 9 April. Thereafter there were one or more further incidents, between 16 and 23 April, during which the right rib fractures and the humerus fracture were sustained.

Mechanism and force

49. Both experts emphasised the limitations of their evidence in respect of the likely mechanism and force required to cause S's injuries. This issue involves an area of complex biomechanics about which relatively little is known. It is, for obvious reasons, not possible to reproduce fractures in live infants in a controlled laboratory setting. There is therefore no source of experimental research on which to rely. Both experts drew primarily on their own experience of reviewing fractures in children and considering the histories provided by their carers.

50. The experts agreed that the rib fractures were caused by either a blunt impact force or, probably more likely, a compression force. The most likely cause, in the opinion of both, was a squeeze around S's chest by adult hands.
51. The fracture to the humerus is an oblique fracture, which the experts agreed would have been caused by some form of bending or twisting force. There was some discussion in the experts' meeting about the degree of twisting involved in an oblique, as opposed to spiral, fracture. Dr Oates, to whom Dr Ellis deferred, said that he thought there was likely to have been "some pulling action, but a degree of twisting... I can't say how much of this was twisting and how much of it was pulling. It is likely to be a combination of both". In oral evidence he repeated that "trauma does not occur in a lab environment... in reality, if a force is applied, unless it's applied right down the centre of the bone there is likely to be some associated twisting action".
52. As to the degree of force involved, both experts agreed that the force required for each of the fractures would be something beyond normal handling. Dr Cartlidge pointed out in his report that "normal infant bones are resilient and do not fracture without the application of an excessive force". Dr Oates said that rib fractures in infants and young children are exceptionally unusual: "a baby is evolutionarily designed to negotiate, without injury, the very narrow space of the birth canal and therefore the ribs are inherently pliable".
53. Research evidence indicates, and the experts agreed, that rib fractures in young babies can occur in the context of birth-related injuries, and through CPR, but are very rare. Both scenarios would involve force some way above normal handling, although well within the capability of an adult.
54. Both experts were asked to consider whether either potential alternative explanation for S's injuries offered on behalf of the parents could generate the mechanism and force required. Their joint view was that neither explanation could be excluded, but both would be unlikely.
55. If a parent rolled on a child during sleep that could potentially generate the compressive force required to cause rib fractures, depending on the weight of the adult, the relative positioning and the inherent "give" of the mattress. The humerus fracture could also be caused in this way if the adult rolled in such a way as to apply a bending force to the baby's arm.
56. An older sibling jumping or falling and landing on a baby, similarly, could generate a blunt impact force which would be sufficient to cause rib fractures. In the experts' meeting the experts discussed the possibility of both the rib and humerus fractures being caused during an incident of this nature. Dr Oates suggested a scenario in which T jumped and landed on S with one knee landing on his back and one on his humerus, creating a twisting effect. Dr Cartlidge suggested a heel or knee landing on the chest and then sliding down onto the humerus. Both agreed that this would have to be an exceptional and unusual event.
57. Both experts made the point that if it were easy to fracture a baby's ribs through co-sleeping or the over-boisterous attentions of an older child, clinicians might expect to see a lot of incidental fractures, but in fact such fractures are very rare.
58. Dr Oates in particular gave important evidence as to the frequency of injuries of this nature. As a radiologist at a large paediatric trauma centre he has vast experience of interpreting radiographs of young children. His hospital (Birmingham Children's Hospital) carries out between 250 and 300 such x-rays each week. They are most often done because there is a concern that the child may have a chest infection or other non-traumatic illness. It is "vanishingly rare" to see an incidental fracture on such an x-ray. Dr Oates emphasised that the issue of fractures in young children was an area of work that he was "passionate about", read about a lot and discussed with colleagues. He thought that if there were reports of either of the mechanisms suggested on behalf of the parents causing rib fractures in young babies, he would be aware of them.

S's likely response

59. Dr Cartlidge's evidence was that S would have exhibited an immediate pain response after each fracture. This would have been likely to be a loud scream, distinguishable from the normal cry of a hungry or uncomfortable baby.
60. The issue of how long it would take S to settle after such an injury was explored during Dr Cartlidge's oral evidence. In his written report he gave the opinion that S would have been distressed for about 5 to 10 minutes after each of the fractures was sustained. In his oral evidence he accepted that if he had been breastfed soon after this would have had a soothing effect, and would reduce the duration of his crying; he said he could not say how long the duration would be in those circumstances, but when a timeframe of one to two minutes was put to him he responded that that sounded too brief. In any event, and more important than its duration, the cry would be different in nature to his ordinary cry.
61. In his report Dr Cartlidge described the likely clinical signs of a rib fracture as follows:

"Each of the rib fractures would have been initially painful, probably for about 10 minutes. The right-sided fractures could have been caused by a single event. Thereafter the pain would have lessened, but deep breaths, crying and handling around the chest would have exacerbated ongoing discomfort causing S to be more fractious than usual for at least a few days. Yet, young babies cry so frequently without a specific reason being identifiable that the cause of his ongoing distress is unlikely to have been recognised by someone unaware of any trauma. There might have been bruising on the chest if it had been tightly gripped. Occasionally, a crackling sensation can be felt or heard from fractured bone ends grating against each other. [...] If the Court finds the revealed accounts of symptomatology to be reliable, then S being noticed to have a popping/cracking sound coming from his torso/chest and also abnormal breathing during the early evening of 22 April 2022 is very suggestive of the right-sided rib fractures being present at this time."

62. As to the effects of the humerus fracture, in his written report Dr Cartlidge suggested that S's right arm would have appeared limp immediately after being fractured. In his oral evidence he agreed that because young babies move their limbs erratically and without intent, a parent might not notice this immediately; it would be more likely that it would dawn on them over subsequent periods of caring for him.
63. Overall, Dr Cartlidge's evidence was that any (adult) person witnessing the causal events which led to any of the fractures S sustained would have known that he had been hurt. If the events were unwitnessed, the humerus injury would be likely to be noticed if the right shoulder or elbow was substantially moved, such as during dressing or undressing. If the rib fractures were unwitnessed, any person caring for S would be likely to have noticed that he was crying more than usual, but unlikely to have known that he had been injured.

The experts' views as to causation

64. Dr Oates' view as to the likely causation of S's injuries is set out in the executive summary to his report as follows:

"Rib fractures, particularly are considered to have a high specificity for abusive injury given that they very rarely occur in typical domestic accidents. I note the parents describe co-

sleeping and whether this may account for the rib fractures. Based on the likely mechanism involved (i.e. a compressive action to the chest), I cannot exclude such a scenario with certainty but I believe it would have to be considered a highly unusual event to sustain so many rib fractures, and would not obviously explain the right humeral fracture. Similarly, the possibility that S's older brother T may have inadvertently caused the injuries would seem unlikely. I will expand upon my interpretation in the main body of the report but ultimately, I have concerns that the true explanation for the injuries has not been disclosed."

65. Later in his report he said:

"Ultimately, while I cannot exclude the possibility that the actions of T or the co-sleeping arrangements may have caused the injuries, it requires more than 1 very unusual traumatic event which to my mind is increasingly unlikely."

66. Dr Oates confirmed at the conclusion of his oral evidence that this remained his opinion.

67. During the course of his report Dr Cartlidge reviewed and excluded possible conditions which might have caused or contributed to S's injuries. There is no suggestion that the injuries could have had any other cause than trauma.

68. Dr Cartlidge's conclusions were stated as follows:

"In my opinion all the fractures were caused non-accidentally as follows:

- The left-sided rib fracture was caused by the chest being squeezed excessively firmly about 2-4 weeks before 23 April 2022.
- The right-sided rib fractures were caused by the chest being squeezed excessively firmly at or before the early evening of 22 April 2022.
- The humerus fracture was most likely caused by a bending force at or before about 08.00 hour on 23 April 2022.

I do not discount the right-sided rib fractures and the humerus fracture being sustained at the same time, but by separate applications of force.

Conclusions

In my opinion, all the fractures were caused non-accidentally during at least two separate periods of time."

69. Dr Cartlidge maintained that view at the conclusion of his oral evidence.

Loose ends in the medical evidence

70. Finally, there are two 'loose ends' in the medical evidence on which no party sought to place weight, but which I record for completeness and because this is a case where it is necessary to carry out the widest possible survey of the evidential canvas. It is conceivable, if for any reason this judgment is revisited in future, that either of these issues may achieve greater prominence.

71. The first is the result of the genetic testing carried out following Dr Ellis's report. Dr Ellis arranged for S to be tested for a panel of genes associated with a tendency to bone fractures. This testing revealed a rare change in the DNA sequence of the COL1A1 gene. The clinical significance of this variant was unknown and it was classified by the laboratory which carried out the testing as a Variant of Unknown Significance ("VUS").

72. Dr Ellis was assiduous in following up this result. He arranged for both parents to be tested; this revealed that the mother had the same VUS as S. He contacted a number of laboratories to ask for clinical information about others who had been found to carry the same VUS, obtaining three responses which provided information about 11 patients. Ultimately he concluded that it was unlikely that the VUS found in S had caused any increased bone fragility. This was based on the absence of any relevant clinical features in the mother; the fact that S had sustained no further fractures as he became more mobile; and a lack of evidence of a preponderance of bone fractures in others carrying the same VUS. That conclusion is not challenged.
73. The second medical loose end is that the radiological investigations raised the possibility for Dr Oates that S might have suffered further fractures beyond the rib and humeral fractures identified above. In his written report Dr Oates observed that the Part 1 skeletal survey showed an irregularity and slight angulation of the right distal tibia metaphysis (the lower part of the shin bone). He said that this "raises concern for a specific type of fracture known as a classical metaphyseal lesion fracture.... While I have my suspicions that this is a further injury, I cannot be categorical based on this or the part 2 skeletal survey, and the possibility that the appearance falls within normal limits cannot be excluded". In his oral evidence Dr Oates explained that he had given this issue considerable thought, and ultimately had decided that he could not state that this was a further fracture. Again, that conclusion is accepted and the local authority does not seek a finding of any further fractures beyond those to S's ribs and humerus.

The parents' evidence

74. Ms Cheetham told me during submissions that the guardian had been impressed by the mother's obvious attunement to the children. So was I. In the Family Court, where sadly many parents have experienced trauma that affects their ability to create secure attachments in their children, it is sometimes easy to forget what ordinary good quality parenting looks like. It was obvious from the mother's evidence (and that of the supporting lay witnesses) that in the weeks following S's birth the mother was completely, and delightedly, absorbed in her children. Her evidence was in no way rose-tinted: she described the tiredness, the challenges of juggling the needs of a toddler and a baby, and having to learn new strategies for this when previously she had only needed to focus on one child. But it was also clear from all of the evidence that she was enjoying the challenge: "in her element" was Mrs O's description of her.
75. From the submissions made by all parties, I gathered that all professionals involved in this case find it difficult to imagine this mother doing anything deliberately to hurt either of her children. Again I agree. By that I do not mean to exclude the possibility of a sudden loss of control, which even a loving and attuned parent may be susceptible to. What is more significant, in my view, is that I am very confident that if this mother had known or suspected that S had suffered an injury she would not have left him without medical attention, and would immediately have sought help, regardless of the consequences for her or anyone else.
76. The father was less overtly emotional in the witness box but his love for both his children, his pride in them, and his fervent wish to be as good a father and partner as he possibly could were all evident. It was similarly difficult to imagine him countenancing a situation in which he knew his newborn baby had suffered injury, but took no steps to obtain help.
77. The local authority explored with the father some evidence suggesting that he is a person who likes routine. In a special guardianship assessment the paternal grandmother described him as "particular". Both parents agreed that they valued predictable household routines: they plan meals in advance, alternate cooking and various other household tasks, and enjoy the stability

this gives them. However I have found no evidence to suggest that the father (or for that matter the mother) has ever reacted disproportionately to a disruption in routine, and indeed the fact that they both clearly adjusted very well to becoming parents to T suggests an ability to be flexible when needed.

78. I recognise that a person's demeanour in the witness box can be an unreliable guide to credibility and have put little weight on it in this case. My observations about each parent's credibility are based on the content of their accounts, given both from and outside the witness box, and not on the way in which they presented.
79. I am satisfied at the very least that the vast majority of what the parents have told me is truthful. Their accounts are coherent; they make sense when read alongside each other and fit with accounts given previously by each of them, and by the other lay witnesses. They are however not too coherent, in that they contain slight differences consistent with differing recollections and with the fluctuations of memory over time. Each parent has gone back and revised some of the more peripheral aspects of their accounts when they have noticed an inaccuracy. The way in which their accounts have evolved is not consistent with a manufactured, false presentation.
80. For these reasons and others I think there has been no collusion between the parents. I have had the conduct of this case since these proceedings were issued; I have taken note of how the parents have conducted themselves in court, how and when their evidence has been produced, and how they have responded as the medical evidence has come in. I have also gathered information about their family life and how their relationship works from the documentation, including the evidence and assessments of family members, and the medical notes including the family support worker notes over the period when S was in hospital and the parents were closely observed. I do not think these parents would have been able to manage a shared guilty secret over such a long period of time. It would, I think, have torn them apart. In fact one of the lay witnesses said that the experience of the past year, horrific as it has been, has strengthened their relationship and "gelled" them together.
81. Both parents from time to time gave answers to questions that went against their interest. For example, at the outset of his evidence the father corrected an estimated time-frame he had given for leaving the children alone in the living-room on 22 April 2022, from "5 to 10 minutes" in his witness statement, to no more than three minutes. The reduction in the time estimate potentially limited the father's exposure to the local authority's allegation of neglect, but a far more significant potential adverse consequence for him was that it reduced the time available for T to fall and land on S, and therefore weakened the likelihood of the injuries having occurred unnoticed on this occasion.
82. Throughout these proceedings the parents have passed over opportunities that have arisen for them to bolster or strengthen their case. A significant concern for the medical experts has been the parents' failure to identify any occasion when S's injuries could have been caused accidentally. It would have been easy for them, as the evidence developed, to suggest that they had on reflection remembered an occasion when S screamed more loudly than usual during the night; or for the father to say that when he returned to the living room on the evening of 22 April S's crying was louder than when he had left. Even an innocent parent might well feel a temptation in the circumstances of this case to embellish or exaggerate their evidence. These parents have not done so.
83. There is one final small, but perhaps significant, point in favour of the parents' credibility. During S's time in hospital, the mother stayed with him and the local authority put in place arrangements to ensure that he was constantly supervised by a family support worker. During this period the police and/ or the local authority asked the parents to put together a timeline of events leading up to the hospital admission. It is clear from the FSW notes that the parents

worked on this document together, in the presence of various family support workers. They did not need to do that: there were times when the mother left S to be watched by a FSW and, for example, went to the cafeteria to spend time with the father and T (who was not allowed on the ward). If there had been any intention to deceive, either or both could have taken steps to ensure that the timeline was prepared in private, without a third party listening in. They did not.

84. From the parents' evidence alone I cannot exclude the possibility that somewhere in the evidence of one of them there is one big lie; but if it is there, it is isolated, and the rest of what they have told me (subject to the expected variations due to the fallibility of memory) is true.

The family witnesses

85. The evidence of both Mrs N and Mrs O corroborated the evidence of the parents in respect of their family life and the way they were adjusting to the arrival of a second child in the family. Both gave similar descriptions of the parents' characters, and of their relationships with their children and each other. Those descriptions were consistent with the evidence of the parents themselves and with the documentary evidence.
86. Mrs O's evidence is of particular significance because the mother and both children were with her on the afternoon of 22 April, a time period of key relevance in terms of the causation of S's injuries. I will deal with this evidence later. It was clear and unchallenged, and I am satisfied it is reliable.

Analysis of the evidence

87. In this part of my judgment I intend to use the phrase "non-accidental" to describe an injury that was inflicted deliberately or recklessly by one of S's parents. In that scenario the undisputed evidence is that the parent in question must have known at the time that their actions had caused S to suffer serious harm.
88. My first task is to determine on the balance of probabilities whether S's injuries were caused non-accidentally. If so, I must seek to establish, again on the balance of probabilities, whether it is possible to identify a perpetrator.
89. I remind myself that the burden is on the local authority to prove its allegations. The parents do not have to prove any of the alternative explanations that have been put forward.

The timeline: S's birth to his admission to hospital on 23 April 2022

90. It is possible from the parents' written evidence, the timeline they prepared in hospital, the documentary evidence, and the evidence of Mrs O and Mrs N, to build up a fairly detailed picture of life in the family home between S's birth and his admission to hospital. Ms Cheetham has assisted me hugely, in terms of dates and timings of individual events, with a chronology prepared ahead of the hearing, and I have been able to fill in further detail as I have assimilated the evidence during the hearing.
91. The father's paternity leave started on the day that S was born and he returned to work on Monday 4 April. After his return to work he was out of the home on weekdays from 6.45 in the morning until between about 6 and 6.30pm.
92. S slept in his parents' bed from his first night at home. The parents explained that they were aware of the risks of co-sleeping, but had not been able to settle either of their children in a cot;

- they had co-slept with T and therefore took the same approach with S. He was positioned at the head of the bed, on his back, with his head between his parents' pillows.
93. S is described by his parents as a little harder to settle than T, who was a particularly placid baby (Mrs N described him as "quiet"; in contrast, she said, S cried a little more). The father explained that S's "cycle" of feeding, sleeping and waking seemed to be a little shorter than T's. Both parents emphasised that at five weeks S was changing from week to week, if not from day to day.
 94. In S's early weeks the family were surrounded by family and friends all keen to see the baby. During the period of the father's paternity leave the chronology records four visits to the family home, and two visits by the family to others; having heard the oral evidence I consider it likely that there were further unrecorded occasions when the mother saw her own parents, and at least one visit by Mrs O and her husband that has not made its way into the chronology.
 95. After the father returned to work on 4 April the mother took on the sole care of both children during the day. However the parents kept up T's childcare for the sake of routine, so T was at nursery on Tuesdays and Wednesdays, and spent Thursdays with Mrs N. It was therefore only on Mondays and Fridays that the mother had a full day with both children together. In fact, it appears that she often used these days to meet up with friends: for example, on 4 April she took the children with her sister for a photoshoot, and on 22 April she went to visit Mrs O and her daughter and granddaughter.
 96. On Tuesday 19 April 2022 the mother had a dental appointment. Mrs N came to the family home to look after S (T was at nursery). She was there for about two hours. S slept in her arms throughout this time. She noticed nothing unusual about his presentation. I record that it is almost certainly the case that the first fracture was present by this time.
 97. There were two weekends between the end of the father's paternity leave and S's admission to hospital. On the first of these weekends the father went to a wedding and was away overnight. The second weekend was the Easter weekend. On Saturday 16 April there was a family gathering at the paternal grandparents' home. On the Sunday and Monday the family spent the day at home, save that on both days they went together to a local park to feed the ducks.
 98. The period of Friday 22 – Saturday 23 April was subjected to careful scrutiny during the course of the evidence. In respect of this period I am, of course, reliant primarily on the parents' account, but for the reasons I have given I consider that their evidence is reliable at least in terms of the overall chronology of events.
 99. Both parents said that on the morning of 22 April when they woke up, S was presenting normally. F went to work and M was at home with the children in the morning. After lunch she took them both to visit Mrs O, travelling by bus. Also there was Mrs O's daughter, the mother's close friend, and her 6 month old daughter. The mother and children arrived at about 1.30. Mrs O drove them home at about 4.30.
 100. The father arrived home at about 6.15pm. It was his turn to cook. He took the shopping into the kitchen, where T helped him unpack it and they started peeling carrots. At 7pm the mother went upstairs to run T's bath. At this point the father was downstairs in the living room with both children. The father described S at this point as unsettled and crying. He changed his nappy. T then asked for a drink and the father put S on his mat on the floor, on his tummy, and went into the kitchen, closing the kitchen door behind him because, he explained, the mother does not like the smell of cooking permeating the house. The extractor fan was on.
 101. The father's written evidence was that he was in the kitchen for five minutes. He made T's drink and then chopped two carrots to make progress with dinner. In oral evidence he said that on reflection he thought the time he was out of the living room was about three minutes. When he returned S was still crying. In oral evidence the father was asked to describe S's crying before

and after he left the living-room, on a scale of one to 10. He said that the crying was at about five or six on each occasion: there was no significant difference in the nature of the cry before the father left the room and when he returned.

102. During the course of the evening both parents say that they noticed S becoming increasingly unsettled. Neither, unsurprisingly, was able to pinpoint a moment when he was clearly not his normal self; but both describe him as being difficult to settle and when they ate dinner, after T had gone to bed, the mother was unable to put S down and continued to breastfeed him as she had her dinner. After that the father took him out in the sling for a walk. This seemed to settle him, but when they returned and S was taken out of the sling he started crying again.
103. At some point during the evening the parents noticed what they later described as a “popping” or “crackling” sound coming from S’s chest as he breathed. Their accounts as to when this first became apparent have varied slightly, in a way that is entirely consistent with natural recollection. They discussed (and googled) S’s symptoms, thought he might have a chest infection, and decided to wait to see how he was overnight. The night was uneventful.
104. In the morning, however, S’s chest still “did not sound right”, as the mother put it in her statement, and he was still unsettled. The parents decided to call 111; the father made the call and described S’s symptoms. During the course of the call the handler asked whether either of S’s arms was floppy; both parents say they had not noticed this until then, but when the mother lifted his right arm it flopped back down, in contrast to the left. The notes of the call read:

“1/7 parents noted grunting on breathing as if in pain. No obvious traumatic history.
PMHx: Born at 40/40 vaginal delivery. Required resus initially du to pH imbalance.
Patient asleep but rousable.
Parents aware of a popping noise when the patient.
Right arm not mobile.
Nil obvious bruising or swelling.
Popping in chest.
Crying but ?pained.
No obvious declared injury.
Father offering genuine concern.
Discussed possibility of front facing sling causing issue.
No concerns re: safeguarding at present.
?shoulder injury
?rib injury
Refer to ED.
To call ED to ensure attendance.
Worsening and watch fors given.”

105. The call ended at 08.16. In accordance with the advice given, the mother left for the hospital with S almost immediately.

Inherent probabilities

106. S’s injuries were sustained on more than one occasion. If both sets of injuries were caused abusively, it is extremely unlikely, in my view, that they were caused by different people. Although even caring and attuned parents like these, with no apparent risk factors within the family, can be susceptible to a momentary loss of control, it is rare for children to be injured in

this manner. For both parents in a family to act in this way within a few weeks of each other would be an extraordinary coincidence.

107. It is also highly unlikely, although conceivable, that there was only one abusive event and that S sustained an accidental injury on a different occasion.
108. It is much more likely, therefore, that if any of S's injuries were caused abusively, they all were, and the same perpetrator is responsible.
109. The undisputed medical evidence is to the effect that if any of these injuries were caused accidentally, the cause would have to be a very unusual event. It follows from that, I think, that if both sets of injuries were caused accidentally it is much more likely that they were caused by the same unusual mechanism on two different occasions than that there were two separate and unconnected highly unusual events.
110. Of the two possible explanations that have been put forward, it is more likely that S was injured during co-sleeping on two occasions than that he was injured by T on two occasions. The mechanism involved in an injury caused by T must necessarily have involved a significant number of variables (the relative positioning of the children, and T's unpredictable movements) that would be unlikely to recur. Further, T and S were together unsupervised only very rarely and for short periods of time, and there is no evidence that they were left alone at all in S's first few weeks (over the period of the first injury), when the father was on paternity leave and there were many visits to and from family members.
111. In contrast, a co-sleeping injury that went unrecognised by the parents on one occasion could quite possibly recur on another when the same combination of circumstances (the relative positioning of baby and parents, and the fact that both parents were asleep) arose. In her submissions Ms Badejo pointed out that S slept in bed between his parents for 33 nights. If the first injury was caused in this way, and went unnoticed, from that point onwards the event that caused the subsequent injuries could well be described as an accident waiting to happen.
112. In this part of my judgment I have made some observations about the inherent probabilities of the potential explanations for S's injuries that have been raised during this hearing. In doing so my intention has not been to rule out any possible explanation, even the least likely. It is important in this case that all possibilities are held in mind until the point where the determination is made, and that the court has an overview of the strengths and weaknesses of each explanation in the light of the evidence. To borrow from a different area of the law, it would be a mistake in this case to rule out one possible explanation after another until only one remains.

An accident involving T

113. Both Dr Cartlidge and Dr Oates were able to envisage a possible scenario in which S's right rib and humerus injuries were caused on the same occasion by T jumping, falling or stumbling into him. In the experts' meeting Dr Cartlidge said that he was "straining" to suggest a mechanism by which this could have happened; in his oral evidence, having viewed one of the videos produced by the parents showing T jumping off the sofa, he said that on reflection a further mechanism might be a stumble which involved T's knee landing on S's chest, and the heel of his hand on the mid shaft of the right humerus.
114. Dr Cartlidge thought it was unlikely that T, who at the time was aged two, would have had the emotional or cognitive capacity to understand and then communicate to an adult any event that had taken place in their absence, even if it had caused S to scream unusually loudly. I accept

that evidence, which is consistent with the family members' evidence about T's level of cognitive development at the time, and indeed my own judicial and practical experience.

115. The evidence leaves open the possibility that an accident took place on the evening of 22 April when the children were left alone in the living-room for a period of up to three minutes. S was crying when the father left the room, and crying when he returned; the father may not have heard any change in the nature of his cry because he was in the kitchen with the door shut and the extractor fan on. The mother almost certainly would not have heard anything because she was upstairs running the bath.
116. One significant difficulty with this scenario is the existence of the earlier rib fracture. The medical evidence is to the effect that a scenario of this nature must be highly unusual, because very many young babies have boisterous older siblings, and yet babies very rarely present at hospital with rib fractures. It follows that for a young baby to be injured by a sibling on two separate occasions must be extraordinarily unlikely. This is compounded by the fact that there is no history of T being left alone with S during the period when the first injury occurred, and it is unlikely that he would have been.

Co-sleeping

117. I have summarised above the medical evidence which indicates that as a potential mechanism, this explanation is possible but unlikely. In particular, I note the view of both Dr Oates and Dr Cartlidge that they would expect a small baby onto whom a parent had rolled in bed to sink into the mattress to at least some degree before a counter-force sufficient to cause fractures was generated.
118. I note also Dr Cartlidge's evidence that a baby suffering injuries as significant as these, particularly perhaps the second set of rib injuries, would have responded with a loud distress response, readily distinguishable from the usual stirrings of a hungry baby waking for a feed.
119. The evidence of the mother, and of Mrs O, is that she is a heavy sleeper. I note that this evidence has the potential to be self-serving, but as I have said the mother resisted other opportunities to tailor her evidence to suit her case, and I am inclined to accept it. She was also, inevitably, tired after childbirth, nights spent breastfeeding on demand and days spent caring for a toddler and young baby (I note from the FSW records that there was at least one occasion in the hospital when she fell asleep while feeding S in the night; and another when, half-awake, she reached out for him and pulled him by the arm without realising what she was doing). It is possible, in my view, that S's initial distress response did rouse her, but that she was sufficiently drowsy that he was latched on and feeding before she was fully awake.
120. On the other hand, the father is a light sleeper. He would have been more likely to wake and hear a distress cry, and to recognise it for what it was. I note that at this point T also was waking quite frequently during the night, and that when he did so the father would get up and go to attend to T in his room (the mother explained in her statement that the parents divided responsibility between them so that if T woke in the night, the father would tend to T, and the mother would tend to S). It is possible that he was not in the bedroom when any incident occurred.
121. I am satisfied that the crackling sound in S's chest was first noticed by the parents on the evening of 22 April. That is the chronology provided by the parents in their original timeline

document, and in both parents' written evidence; the mother was less sure in her oral evidence when she first heard the sound, but I am satisfied that is because her memory has faded due to the time that has elapsed. Assuming that they are telling the truth (and I remind myself that this is a case where I have found it highly unlikely that the parents have colluded), the parents' first accounts given at the hospital and in their timeline are likely to be the most reliable.

122. It is highly likely, therefore, that the right-sided injuries were present by the evening of 22 April at the latest.
123. It is more difficult to establish how long before then they were caused. Dr Cartlidge said that the crackling sound did not, by itself, identify the moment when the injuries were caused. The crackling was likely to be the sound of the fractured ends of the ribs moving over each other and grating, but it was not necessarily the case that the fractures had happened immediately before that sensation was felt or heard: it might have been within the previous day or two.
124. It was suggested by Ms Cheetham on behalf of the guardian that the fact that S was seen, and handled, by Mrs O during the day of 22 April, and nothing unusual was observed, "ruled out" the possibility that S's right rib and humerus injuries had been caused before then, and therefore made the co-sleeping explanation impossible.
125. I agree that the evidence of Mrs O makes the co-sleeping explanation less likely. Mrs O said that during the visit S was handled a lot by everyone present: S had arrived in the baby sling and she did not have a cot suitable for a baby his size, so he was held and passed around throughout the visit. This would have been likely to agitate any injuries, and it is difficult to understand how S could have presented as he did during that visit – as a normal, contented baby – if he had already suffered the significant injuries that were found the following morning. I note that during his stay in hospital S was clearly suffering pain and there were a couple of occasions when he became distressed when his pain medication was due.
126. On the other hand, if I accept the mother's evidence¹, she was able to settle S during the night of 22 April and he woke, fed and slept as normal. On almost any interpretation of the evidence, given the crackling sounds heard the night before, the injuries were present during that night. I bear in mind also that the left rib fracture, albeit a less significant injury, was undoubtedly present over a period of time when S was held by a considerable number of different adults; and yet none of them noticed anything unusual.
127. I do not think I can go so far as to rule out this explanation. I accept it is unlikely.

The evidence for and against a non-accidental injury

128. The medical evidence is very important, and provides the main foundation of the local authority's case in support of a non-accidental explanation. It establishes that, from a medical point of view, an abusive cause is more likely than an accidental cause. That is because:
- a. S's injuries are of a type than can be (and not infrequently are) caused by forceful handling by an adult: usually a compressive squeeze in the case of the rib injuries, or potentially a blow; and in the case of the injury to the humerus, a pull with a twisting action; and
 - b. If the injuries had occurred accidentally, the nature of the event and S's response would be such that one would expect any person caring for him to be able to give a history of what had happened.

¹ Even ignoring for the moment my observations about the mother's credibility generally, I do not think it makes sense for her to have denied any symptoms S exhibited overnight, when she had already said she had heard the crackling in S's chest the night before.

129. In contrast, a highly unusual event/ combination of circumstances would be required to produce S's injuries accidentally and in a manner which went unnoticed by the parents.
130. I remind myself of Dr Oates' important evidence that if it were common for toddlers or co-sleeping parents to cause injuries of this nature, hospitals would see them all the time – but in fact incidental (in this context, the word is exchangeable with accidental) rib fractures in small babies are very rare.
131. The absence of an explanation of S's injuries from either parent is, of course, a matter to which I have given very careful consideration throughout these proceedings and while preparing and writing this judgment. There are two possible reasons for the lack of an explanation. The first is guilty knowledge. The other is that the parents truly do not know how the injuries occurred.
132. These are loving, attuned, careful parents who looked after their first child from birth until toddlerhood with no concerns being raised about their care. None of the risk factors identified by Peter Jackson LJ in *Re BR* [2015] EWFC 41 are present. All of the protective factors are.
133. The evidence of Mrs N and Mrs O was of significance not just because they described the parents in such positive terms, but because it demonstrated the robust support network surrounding and available to them. Mrs N told me that she speaks to her daughter, usually on Facetime, every day.
134. The mother was at home alone with both children on weekdays after the father went back to work. However she was very well supported, and I am not sure that there were in fact many days when she did not have the company of another adult: the evidence of Mrs O and Mrs N made it clear that they were very much around and on hand, and they were by no means the only people who visited the mother, or were visited by her, during that time. Although the mother was on maternity leave the parents kept up T's childcare routine, so T was at nursery on Tuesdays and Wednesdays, and spent Thursdays with Mrs N. It was therefore only on Mondays and Fridays that the mother had a full day with both children together.
135. The father had very little opportunity to injure S in his first few weeks of life. S was breastfeeding on demand; he was a hungry baby and sometimes would feed as frequently as every hour, or "cluster feed" for several hours at a time. As is quite common, the father's main role was to care for and entertain T. The mother told me that, as when T had been a newborn, for S "mum was everything" and if there was a choice of either parent, he was always going to settle with her rather than with his father. I did not get the sense that either parent saw this as unusual or negative: their expectation, clearly, was that S's relationship with his father would develop when he was a little older, as T's had done: Mrs N described him as "T's best mate". Ms Badejo made the powerful point in submissions that if the father had trouble settling S, all he needed to do was hand him to his mother. There were few, if any, occasions when she was not on hand.
136. The medical evidence as to the timing of the first rib fracture is perhaps particularly difficult to reconcile with a non-accidental explanation, when set in the context of the evidence of this family's life in the first few weeks after S's birth. The father was on paternity leave for most of the relevant period, and the days were a combination of days at home getting used to being a family of four, and visits to and from family and friends. There was very little time when either parent was alone with the children. They were almost always together, and for much of the time in the company of others.
137. During the course of the parents' evidence Mr Little for the local authority fully explored every possible piece of evidence that could possibly be interpreted in a manner that might point towards a finding that one or other of the parents had inflicted S's injuries. It was entirely proper that he should do so and I have considered each piece of evidence carefully. They are as follows:

- a. The father is described by one of the FSWs in the hospital as saying hello to her but then not making eye contact. When this was put to him the father said that his focus was on his partner and son.
 - b. The mother is recorded to have said to a nurse in hospital that the father gets “very stressed” when he cannot settle S. The mother could not remember saying this, but accepted she might have done. If she had said something along the lines of her evidence recorded in paragraph 135 above, this might have found its way into the medical notes in such a form.
 - c. The police visited the father at home while the mother was in hospital with S. During the visit he gave them his phone and they told him they were on their way to visit the mother. The police records suggest that the officers were mildly surprised that after the visit, the father made it to the hospital before they did, and there is a suggestion that he may have been hoping to influence the mother’s account. The father’s answer, borne out by other documentation, is that after the police took his phone he immediately went to buy new ones for both himself and the mother, and took hers to the hospital. He asked, reasonably, if he had been motivated to influence her account why he would have stopped at Tesco’s to buy the phone.
 - d. The local authority says that the father did not tell the mother that he discussed the possibility during the 111 call on 23 April that he had caused S’s injuries through excessive force when S was put in his sling. It seems fairly clear from the notes of the 111 call that the possibility of a traumatic injury (as opposed to an illness) was first raised by the call handler, and the father’s suggestion of the sling as a potential cause arose in response to that. In any case, I am not sure that it is correct that the parents did not discuss this in the brief period before the mother left with S for the hospital: neither could remember with any clarity the content of any conversation between them at that point. Even if it is, I do not see how it points towards the father’s guilt.
 - e. The evidence of both parents was that they had not discussed the possibility of either causing the injuries to S until a couple of weeks before this hearing. That evidence, in my view, does not point in any particular direction. It has been clear to me throughout this hearing that neither parent believes the other caused the injuries. Either one of them is mistaken, or they are both right.
138. For obvious reasons, I can put little if any weight on any of this evidence.
139. In my judgement, it is difficult to square the parents’ actions on the evening of 22 April and the morning of 23 April with guilty knowledge on the part of either of them. Their initial response when S became unsettled was to see how he progressed; when he was no better in the morning, they called 111 for advice, and when that was given (and especially when they discovered that his arm was floppy) the mother rushed immediately to the hospital (the 111 call finished at 8.16 and the mother’s and S’s arrival at the hospital was registered at 9.03). There is no sense that either sought to prevaricate or stall once the possibility had been raised (by the 111 call handler) that S’s condition might be serious. Equally, the decision to wait out the night to see if S’s presentation changed is consistent with a shared assumption (the father told me that, inevitably, the parents were googling S’s symptoms) that the most likely explanation for S’s presentation was a cold or chest infection rather than an injury.
140. There is a further significant argument against a non-accidental cause for the first rib injury in particular. I think it highly likely, having considered the evidence relating to both parents, that if either had experienced a momentary loss of control, causing them to act in such a way as to cause S significant injury, he or she would have been horrified and immediately remorseful. I struggle with the idea that either parent could or would have allowed S to suffer pain without

seeking medical attention for him²; or, even if they did, how they could have conducted themselves as normally as they clearly did, with third parties or with each other, over the following few weeks.

141. I find it even harder to imagine that one of these parents, carrying the knowledge that they had injured their child, would then repeat similar behaviour. The remorse either must have felt at having caused the first injury would, in my judgement, have operated as a powerful protection against a subsequent loss of control.
142. So, while the existence of injuries caused on two separate occasions is a complicating feature when considering a potential accidental cause, it is, in my view, just as problematic when considering a scenario of inflicted injury.

My findings: the causation of S's injuries

143. This is a very difficult and unusual case. None of the potential explanations which has been put before the court offers a perfect, or even a very good, fit with the evidence. In trying to establish what has happened to S I am faced with a number of possibilities, all of which are towards the lower end of the spectrum of likelihood. Although in my discussion of the evidence I have evaluated the arguments for and against each of these possibilities it is, of course, not my role to rank them in order of most to least likely. My task is the simpler one of determining whether or not the injuries were inflicted by either of S's parents. In determining that issue I must act on evidence, not speculation.
144. I do not find, on the balance of probabilities, that any of S's injuries were sustained non-accidentally. The essential question I must ask myself is whether, on the evidence available to me, it is more likely than not that one or both of S's parents inflicted his injuries, knew they had done so, and lied about it. For the reasons I have given I am unable to reach that conclusion.
145. The two alternative explanations put forward on behalf of the parents remain possibilities. Alternatively, this may be one of those cases where the true cause of the injuries has not been identified.

The allegation of neglect

146. The local authority's allegation of neglect is founded on three occasions identified by the parents in their evidence when T and S were left in a room together without an adult present:
- a. On the morning of 19 April 2022, just before dropping T to nursery, the mother put S in the carrycot part of his buggy, on the floor, and left both children downstairs while she went upstairs to use the toilet.
 - b. On the evening of 21 April 2022, the mother was cooking in the kitchen and the father left the children in the living room while he took the bins out (initially the father estimated that this took five minutes; subsequently the parents have produced videos of them undertaking this task, which show that a more realistic time estimate is about 60-90 seconds).

² S's increased fractiousness as a baby, compared to T, adds weight to this argument. It seems likely that a guilty parent would have interpreted the behaviour of a baby who woke more frequently, and seemed more unsettled, as a potential sign of injury or pain. I remind myself that the parent in question would not have known that the injury was a broken rib, that would heal without treatment: there would surely have been a real fear that an even more serious injury had occurred.

- c. On the evening of 22 April 2022, the father left both children in the living room while he went into the kitchen for about three minutes, in the circumstances described in detail earlier in this judgment.
147. The local authority does not seek to suggest that the parents' accounts are inaccurate. Its allegation is based entirely on their descriptions.
148. As Dr Cartlidge pointed out, parents vary in their attitude to risk. Some treat their children with kid gloves; others are more robust. During the course of a day caring for small children most parents will take the odd risk and make the odd misjudgement. Most of the time nothing bad happens and the parent breathes a sigh of relief. Sometimes things go wrong and the child is hurt, but unless the parent's behaviour has crossed the line which divides ordinary real-life parenting from unacceptable negligence, the professional response - rightly - is to treat these events as accidents. After all, it would be possible, in theory, to prevent almost every accident if children were never allowed to run or jump or climb, and if their every move were monitored by an adult who remained within arm's reach and undistracted at all times. But that is not how normal family life works.
149. My task is to determine, overall, whether the children were likely to suffer significant harm as a result of the care being given to the children by their parents not being what it would be reasonable to expect a parent to give: CA 1989, s31. I have no hesitation in determining that the three incidents described above do not come close to taking the local authority over the s31 threshold. In my view, this aspect of the local authority's threshold case should not have been pleaded.

Summary of outcome

150. I have not found that S's injuries were caused non-accidentally by either of his parents.
151. I have not found that at the relevant date either T or S was suffering or likely to suffer significant harm due to neglect.
152. The threshold criteria are, therefore, not met and these proceedings come to an end.