



Neutral Citation Number: [2024] EWHC 2200 (Fam)

Case No: ZC22C50320

IN THE HIGH COURT OF JUSTICE
FAMILY DIVISION

Royal Courts of Justice
Strand, London, WC2A 2LL

Date: 23/08/2024

Before :

MR JUSTICE KEEHAN

Between :

**LONDON BOROUGH OF HAMMERSMITH AND
FULHAM**

Applicant

- and -

G ('Mother')

1st Respondent

- and -

H ('Father')

2nd Respondent

- and -

A, B AND C (CHILDREN)
(through their Children's Guardian)

3rd to 5th Respondents

Sam Momtaz KC and Giles Bain (instructed by **London Borough of Hammersmith and Fulham**) for the **Applicant**

Alison Grief KC and Chris Barnes (instructed by **Miles and Partners**) for the **1st Respondent**

Louise MacLynn KC and Emily Verity (instructed by **Blaser Mills Law**) for the **2nd Respondent**

Laura Briggs KC and Mark Rawcliffe (instructed by **Creighton and Partners Solicitors**) for the **3rd to 5th Respondents**

Hearing dates: 10th June - 24th June 2024

Approved Judgment

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MR JUSTICE KEEHAN

This judgment was delivered in private. The judge has given leave for this version of the judgment to be published on condition that (irrespective of what is contained in the judgment) in any published version of the judgment the anonymity of the children and members of their family must be strictly preserved. All persons, including representatives of the media, must ensure that this condition is strictly complied with. Failure to do so will be a contempt of court.

Mr Justice Keehan:

Introduction

1. In this case I am concerned with three children, A, who is 11 years of age, B, who is 5 years of age, and C, who is 11 months old. Their mother is G. A's father is E who has played no part in these proceedings. The father of B is a man whom the mother met on social media: he has played no part in these proceedings. C's father is H ('the father'). He and the mother have been in a relationship since late 2019.
2. The mother and the father had another child D who was born in September 2020. She tragically died on 16 June 2022 in circumstances which I shall set out later in this judgment.
3. After the death of D, the mother and father were arrested by the police and interviewed. They remain under investigation without bail conditions.
4. Since July 2022, A and B have been cared for by a member of the maternal family. The local authority, the London Borough of Hammersmith and Fulham, issued care proceedings in respect of both children in August 2022.
5. The parents' second child, C, was born in July 2023 during the currency of these proceedings. The local authority issued care proceedings in respect of him the day after his birth and made an application for his removal from his mother and father. The care plan was for him to be placed in foster care. I refused this application and approved his placement with his parents in a residential assessment unit. Since the conclusion of this placement in November 2023, C has lived with his parents at their home but under the 24 hour supervision of professional support workers.
6. It is accepted that D's death resulted from a tragic accident when she fell or slipped from the bottom of a three bed bunk and became entangled around her neck by a decorative scarf tied in the lower bars of the bunk bed.
7. However, on post mortem examination a number of anterior and posterior rib fractures were identified. Histopathological examination of D's rib cage identified other appearances of her ribs which are said to be fractures which predate her death by 3 to 7 days.
8. The purpose of this fact finding hearing is to determine (a) whether D sustained any rib fractures, and if so (b) when they were sustained, (c) whether they were inflicted or accidental injuries and (d) if the former, who inflicted them. There was reference to two small fractures of the sternum in the expert reports. In the light of my conclusions and finding below these are of no material significance.
9. A subsidiary issue relates to A and whether he was the subject of physical harm caused to him by his mother in 2019 and by his mother and/or the father on another occasion in August 2020.
10. The mother and the father denied that they had caused any injuries to D and asserted that any rib fractures she was found to have sustained occurred either (a) when she fell or slipped from the bed and became entangled in the scarf, (b) in the frantic

attempts to extricate her from the scarf and/or the rungs of the bunk bed ladder in which she was intertwined, and/or (c) during the course of prolonged cardio pulmonary resuscitation ('CPR') performed first by the father and then by a succession of police officers and/or paramedics.

11. The mother denied physically harming A on an occasion in 2019 and they both denied physically harming him on another occasion in August 2020.

The Law

12. In relation to the findings of fact sought, I remind myself that the burden of proof is on the local authority.
13. The standard of proof is the simple balance of probabilities: *Re B* [\[2008\] UKHL 35](#).
14. In *Re A (Children)* [\[2018\] EWCA Civ 1718](#), King LJ made the following observations in respect of the discharge of the burden of proof:

"57. I accept that there may occasionally be cases where, at the conclusion of the evidence and submissions, the court will ultimately say that the local authority has not discharged the burden of proof to the requisite standard and thus decline to make the findings. That this is the case goes hand in hand with the well-established law that suspicion, or even strong suspicion, is not enough to discharge the burden of proof. The court must look at each possibility, both individually and together, factoring in all the evidence available including the medical evidence before deciding whether the "fact in issue more probably occurred than not" (*Re B: Lord Hoffman*).

58. In my judgment what one draws from *Popi M* and *Nulty Deceased* is that:

i) Judges will decide a case on the burden of proof alone only when driven to it and where no other course is open to him given the unsatisfactory state of the evidence.

ii) Consideration of such a case necessarily involves looking at the whole picture, including what gaps there are in the evidence, whether the individual factors relied upon are in themselves properly established, what factors may point away from the suggested explanation and what other explanation might fit the circumstances.

iii) The court arrives at its conclusion by considering whether on an overall assessment of the evidence (i.e. on a preponderance of the evidence) the case for believing that the suggested event happened is more compelling than the case for not reaching that belief (which is not necessarily the same as believing positively that it did not happen) and not by reference to percentage possibilities or probabilities."

15. Findings of fact must be based on evidence, including inferences that can properly be drawn from the evidence and not on mere suspicion, surmise, speculation or assertion: *Re A (A Child) (Fact Finding Hearing: Speculation)* [2011] 1 FLR 1817 and *Re A (Application for Care and Placement Orders: Local Authority Failings)* [2016] 1 FLR 1.
16. There is no obligation on a party to prove the truth of an alternative case put forward by way of defence and the failure by that party to establish the alternative case on the balance of probabilities does not of itself prove the local authority's case: *Re X (No.3)* [2015] EWHC 3651 (Fam) and *Re Y (No.3)* [2016] EWHC 503 (Fam).
17. In cases where a child is alleged to have sustained inflicted injuries and the court has the benefit of expert medical evidence, I take into account the following observations and guidance given in the following cases:
 - a) In *Re T* [2004] 2 FLR 838 at paragraph 33 Dame Elizabeth Butler-Sloss said, “evidence cannot be evaluated and assessed in separate compartments. A judge in these difficult cases must have related to the relevance of each piece of evidence to other evidence, and to exercise an overview of the totality of the evidence in order to come to the conclusion whether the case put forward by the Local Authority has been made out to the appropriate standard of proof.”
 - b) In *Re H; Re B (A Child)* [2004] EWCA 567 at paragraph 23 Dame Butler-Sloss observed that:

“in the brief summary of the submissions set out above there is a broad measure of agreement as to some of the considerations emphasized by the judgment in *R v Cannings* that are of direct application in care proceedings. We adopt the following:-

 - i) The cause of an injury or an episode that cannot be explained scientifically remains equivocal.
 - ii) Recurrence is not in itself probative.
 - iii) Particular caution is necessary in any case where the medical experts disagree, one opinion declining to exclude a reasonable possibility of natural cause.
 - iv) The court must always be on guard against the over-dogmatic expert, the expert whose reputation or honour is at stake, or the expert who has developed a scientific prejudice.
 - v) The judge in care proceedings must never forget that today’s medical certainty may be discarded by the next generation of experts or that scientific research will throw light into corners that are at present dark.” and
 - c) In the case of *Re R (Children: Findings of Fact)* [2024] EWCA Civ 153, Peter Jackson LJ said at paragraph 34, “of course [the judge] was right to say that the court’s task was to determine whether the local authority had proved its case on

threshold on the balance of probability. However, that involved grappling with and drawing conclusions from all of the evidence, medical and lay ... Medical and non-medical evidence are both vital contributions in their own ways to these decisions and neither of them has precedence over the other.”

18. There are, of course, cases where at the conclusion of a fact finding hearing the court is unable to explain the cause of a child’s death or of injuries sustained by the child. In the case of *London Borough of Southwark v A Family* [2020] EWHC 3117 (Fam), Sir Mark Hedley made the following observations at the conclusion of his judgment in paragraphs 182 and 187 to 188:

"182. If ever there was a case in which the court had to retain the big picture, both for the controversial and the uncontroversial evidence, this was it. Much of my time over the last four weeks in preparing this judgment has been spent not in writing or organising but in careful reflection on that big picture. In the end, I have come to a conclusion that the Local Authority has failed to prove its case to the requisite standard. In reaching that position, I also have to recognise that I have no clear answer to give as to how S died, since, and this is really common ground, none of the canvassed alternative suggestions could be clearly established.

...

187. Since this is at least the second time that I have concluded after a long forensic enquiry that I do not know what has happened, I need to ask myself one hard question: is this simply a failure of judicial nerve to make a finding against a family such as this, the finding which is nevertheless required by the evidence as a whole? I ask that question not just because it occurred to me but also because I recognise that decisions in cases like this are not driven exclusively by the process of reasoning.

188. There is an element in human judgment that lies beyond cold rationality as every experienced trial judge soon comes to appreciate. In order to test that, I have reflected carefully upon the position as it would be were I to have found that the Local Authority had indeed established their case and this child had been sexually assaulted and killed by one or more members of a family who had then conspired to conceal the truth from all legitimate enquiry. I discovered that such a conclusion would be an affront to my judicial conscience."

19. I respectfully agree with those observations but, of course, much turns on the facts of and the evidence in the individual case.
20. I respectfully agree with all of the above authorities and I have taken account of them in my consideration of the evidence and in my analysis of the same.

Background

21. I have decided to set out only the essential features of the past history of the mother, the father and the children. In the light of the way in which this fact finding has proceeded, I have considered it unnecessary and inappropriate to review the lives of the family members in detail.
22. The mother and the father had both had very difficult childhoods which had caused them to suffer significant emotional and psychological harm. In the mother's case she had additionally been the victim of serious domestic abuse by two previous partners and subjected to a serious sexual assault by one of them.
23. The relationship of the mother and the father was not marred by any such abuse. They were mutually supportive having known each other from childhood.
24. When the family was seen on 16 June 2022, in the aftermath of the tragic death of D, their home was found to be clean and relatively well maintained. There were plenty of appropriate provisions for the parents and for the children.
25. After the birth of C, the parents cared for him at a residential unit for a period of assessment and then under 24 hour professional supervision in their home. The reports from the unit and from the supervisors about the care afforded to C by the parents are uniformly positive. There are no negative observations nor are any matters of concern raised.
26. Whilst the mother and the father had their own personal issues to contend with, from their earlier life experiences and/or abuse, they were loving and caring parents. At particular times the mother struggled with the adverse impact and the troubling memories of the abuse she had previously suffered. Nevertheless, there was no evidence of anything untoward having happened within this family in the days preceding D's death. In particular, there was no evidence, other than the disputed forensic medical evidence to suggest that D had been ill treated or subjected to any abusive handling by either of her parents.

Expert Evidence

27. Dr Fitzpatrick-Swallow, consultant pathologist, and Dr Marnerides, consultant perinatal and paediatric pathologist, conducted the post mortem examination of D on 29 June 2022. They identified, macroscopically, a fracture on her left 6th posterior rib with corresponding soft tissue injuries found externally around the site of this fracture. Radiological examination of D's rib cage did not identify any fractures. The rib cage was sent for histopathological examination by Professor Mangham.
28. The post mortem report of Dr Fitzpatrick-Swallow is dated 12 July 2023. The bone pathology report of Professor Mangham is dated 8 June 2023.
29. Subsequently both experts provided reports and supplementary reports for the purposes of these proceedings.
30. Dr Ward, a consultant paediatrician, was instructed by the parties in these proceedings to report on (a) the causation of rib fractures sustained by D and (b) the causation of injuries sustained by A, namely four distinct areas of bruising, in August 2020.

31. I granted permission for Professor McCarthy, Professor Emeritus of Pathology and Orthopaedic Surgery at the John Hopkins School of Medicine, Baltimore, USA, and a consultant bone pathologist, to be instructed in these proceedings in respect of the histopathological examination of D's rib cage.
32. Dr Fitzpatrick-Swallow, Dr Ward, Professor Mangham and Professor McCarthy gave evidence at this hearing. The principal issues in respect of the expert medical evidence were:
- (i) Whether D had sustained rib fractures and, if so, how many and at what sites;
 - (ii) What were the ages of any fractures identified;
 - (iii) What was the causation of the fractures identified; and
 - (iv) Whether D suffered or potentially suffered from a medical condition which would pre-dispose her to suffer fractures.
33. Professor Mangham and Professor McCarthy came to markedly different conclusions in their reports about their examination of the histopathological slides produced from D's ribcage.
34. Professor Mangham's conclusions may be summarised as follows:
- i) He initially identified 9 acute partial rib fractures, 8 of which were anterior, 1 of which was posterior which occurred shortly before death and subsequently agreed that there was also a cortical fracture of the left 6th posterior rib, all of which occurred shortly before death;
 - ii) 15 older partial rib fractures which occurred between 3 to 7 days prior to death;
 - iii) 2 small sternal fractures which occurred within a few hours of death;
 - iv) The distribution of the acute fractures was a typical of rib fractures caused by CPR in three respects namely:
 - a) Their asymmetry (nearly all on the left side)
 - b) Their presence in ribs not typically fractured by CPR (in particular left anterior first rib fracture and the left anterior 10th and 12th rib fractures) and
 - c) The posterior rib fracture (2nd rib) - asserting that "posterior rib fractures are not caused by CPR" – in fact there were two posterior rib fractures (ie additionally the left 6th posterior rib but this was not apparent to Professor Mangham at the time of writing this report)
 - v) All, or at least some, of the acute rib fractures and all of the older rib fractures were caused non-accidentally as a result of forceful chest compression and therefore that at least some, if not all, of the acute rib fractures were caused by non-accidental injury.

35. It is of note that Professor Mangham did not identify the left 6th posterior rib fracture identified at post mortem examination until after he had received and read Professor McCarthy's report.
36. Professor McCarthy's conclusions may be summarised as follows:
- i) He identified 12 fractures which he described as acute and which occurred around the time of death;
 - ii) These fractures were seen in the left and right sides of the rib cage: 8 were anterior fractures and 4 were posterior fractures;
 - iii) Included within the above fractures was the fracture of the left 6th posterior fracture which had not been identified by Professor Mangham in his post mortem report of 8 June 2023;
 - iv) The other features of the ribs, which had been identified by Professor Mangham as fractures, were not fractures but rather they were features of the growth and remodelling of the ribs seen in babies and infants; and
 - v) All of the fractures he had identified were likely to have been sustained, or at least, could have been sustained, in the course of CPR and/or in the course of D slipping from or falling out of bed and/or in the frantic process of seeking to remove the scarf from around her neck or of seeking to extricate her from the bunk bed ladder in which she was caught.
37. It was agreed that D had been subjected to prolonged and sustained attempts to resuscitate her by the administration of CPR over a period of, at least, 90 minutes.
38. It had been arranged that Professor McCarthy would be available by video link to listen to the evidence of Professor Mangham. Subsequently after the conclusion of his oral evidence, Professor Mangham requested permission to listen to the evidence of Professor McCarthy which, despite some reservations expressed by leading counsel for the mother and for the father, I granted.
39. Professor Mangham readily acknowledged that he had not identified the fracture of the left 6th posterior rib which Dr Fitzpatrick-Swallow and Dr Marnerides had seen at the post mortem examination and which Professor McCarthy had identified from the histopathological slides sent to him for examination. When he received the report of Professor McCarthy, Professor Mangham said he had re-examined the slides and had seen the fracture of the left 6th posterior rib which he said could be seen as 'clear as day'. He could not, however, explain how he had made this mistake, but he acknowledged that his error had caused a lot of trouble.
40. After the receipt of his initial post mortem report there had been a meeting between Professor Mangham and Dr Fitzpatrick-Swallow in an attempt to explain the discrepancy in Professor Mangham's report about this rib fracture. For the purposes of the meeting, he said he had re-examined the slide and melted the tissue block but still could not identify a fracture of the left 6th posterior rib. This issue led to serious consideration being given as to whether the wrong rib cage had been provided to and/or examined by Professor Mangham. A question was raised as to whether DNA

analysis should be taken to identify whether the rib cage examined by Professor Mangham was that of D. Such DNA testing was undertaken but could not provide a match. In the end, extensive enquiries into the procedures and processes for the receipt, identification and examination of this rib cage established that it was D's rib cage which had been received and examined by Professor Mangham. This prolonged audit took months before it was concluded.

41. Professor Mangham could not explain how he had, once again, missed the left 6th posterior rib fracture on his re-examination of the slides. He attempted to explain his error by arguing he may have re-examined the wrong slide – namely slide 37 rather than slide 49, but slide 37 showed a fracture of the left 2nd posterior rib which both professors had identified in their original reports. When pressed to explain how he had missed the fracture of the left 6th posterior rib Professor Mangham said that this was not the only case he had to deal with. This is not any sort of adequate explanation but it may well be an indication of the considerable burden of work under which Professor Mangham was labouring.
42. Professor Mangham did not accept that the 9 acute rib fractures he had identified could have resulted from prolonged CPR because they were (a) asymmetrical (mostly left sided), (b) the position of some of the rib fractures (e.g. the right 11th rib fracture and the left 12th rib fractures which are free floating ribs) and (c) the number of fractures he had identified. When asked about the relevance of the number of rib fractures, he said he had identified 24 fractures. He was challenged about using this number by Ms Grief KC, leading counsel for the mother, because on the basis of his opinion, only 9 of the rib fractures were said to have been acute and thus could have been sustained within the time frame in which CPR had been administered. Professor Mangham accepted he had made a mistake in referring to all of the fractures he had identified. However, he could not offer any explanation for having done so, other than to say perhaps he was too tired. At this point, with the agreement of counsel, I adjourned his evidence to continue the following day.
43. When his evidence resumed, he acknowledged that some of the acute rib fractures could have been caused during the course of CPR. When asked why there was no reference to this explanation for some of the rib fractures in his report, Professor Mangham replied that he had been focussed on the question of whether all of the identified rib fractures had been caused by CPR.
44. I did not then, and I do not now understand why Professor Mangham had this focus and why he appeared in his report to exclude CPR as a possible explanation for some of the rib fractures because CPR did not provide an explanation for all of the rib fractures.
45. Professor Mangham did not accept Professor McCarthy's evidence that many of the fractures he had identified were not in fact fractures but were instead features of the normal processes of bone growth and remodelling in the ribs which are commonly seen in babies and young children. He maintained that the signs he had identified represented a fracture of the rib, which included:
 - i) Osteocartilaginous spurs;
 - ii) Fibrinoid material;

- iii) Mesenchymal tissue, and/or a mesenchymal response;
 - iv) Granulation tissue with osteoclast front and osteoid deposition and/or osteoclast-like cell resorption; and
 - v) Necrotic chondrocytes and zonal osteocyte necrosis.
46. It is of note that all of the fractures, or as the case may be, the sites of bone growth and/or remodelling were seen either at the costochondral junction of the ribs or at the osteocartilaginous junction (i.e. the posterior rib head).
47. Professor Mangham was asked to comment on the presence of haemorrhage around the sites of all of the fractures identified by Professor McCarthy. He replied that it was quite likely that he too had seen evidence of haemorrhage at those sites but that:
- i) He had not mentioned these observations in his report;
 - ii) He was focussed on signs of chronicity in the fractures; and
 - iii) He does not mention every feature he observes on a slide.
48. I entirely accept that a histopathologist may, as a matter of good practice, look for the oldest signs in respect of a suspected fracture and would not necessarily mention every feature observed on a slide. As Professor Mangham accepted, the presence of a haemorrhage is or maybe a feature which indicates the fracture could be acute rather than chronic. Therefore, whilst some of the observed features may have caused Professor Mangham to conclude that the fractures were chronic (in this case 3 to 7 days before death), I do not understand and I do not accept his omission of referring to the presence of haemorrhage in his report in respect of the fractures which he opined were chronic. The presence of haemorrhage is a highly material feature of the slide which might lead the court to reach the conclusion that the fracture was acute and not chronic, and very importantly, whether there was really a fracture at all. Professor McCarthy did not identify any haemorrhage in those said by Professor Mangham to be ‘old fractures’.
49. At the very end of his evidence in cross-examination by Ms Briggs KC, leading counsel for the children’s guardian, Professor Mangham referred to one of the features of some of the slides that had led him to conclude that some of the fractures he had identified were chronic, namely, osteocyte necrosis. He said that the identification of osteocyte necrosis was subjective and needed careful evaluation. He recognised that it was a controversial issue, not as to whether it occurs but as to when it occurs and can be recognised whether osteocyte necrosis was present. Professor Mangham then said that the prolonged use of CPR would negate reliance on the presence and significance of osteocyte necrosis as a means of timing a fracture. It is of considerable weight that this important feature of Professor Mangham’s oral evidence, i.e. that the use of osteocyte necrosis in timing is controversial, does not appear in any of his reports.
50. By 8 March 2024 I had given permission for Professor Mangham to be instructed as an expert in these proceedings. He had been sent a letter of instruction dated 15 February 2024. On 8 March I directed that a report should be filed and served setting

out Professor Mangham's response to the report of Professor McCarthy by 19 April 2024. No report was received until 1 June 2024. Professor Mangham could give no adequate explanation for the very considerable delay in providing his report. Towards the end of this evidence, I gained a sense of why the report was so delayed when he said that because of the number of cases he had to deal with, he dealt with only the most pressing matters; those which were on the immediate horizon.

51. In contrast to Professor Mangham, Professor McCarthy agreed with Dr Fitzpatrick-Swallow's opinion that the left 6th posterior fracture could well have resulted from a blunt force injury when D slipped or fell out of her bunk bed onto a metal bar on the bed or the ladder.
52. He confirmed he had listened to the recording of the 999 call and had viewed the video from body worn cameras of the resuscitation efforts made on D at the family home. Professor McCarthy praised the response of the emergency operator and noted the evident terrified panic of the father. He accepted that this father in these circumstances could have caused the rib fractures which he had identified when administering CPR to her.
53. In respect of the disputed fractures which he had identified as evidence of bone growth and re-modelling, he had not identified any sign of haemorrhage at these sites which, for him, excluded the features seen on the slides as being fractures or evidence of fractures. He was confident that these features were not fractures.
54. Whilst he accepted that most of the nerves around the ribs are within the periosteum, he maintained that rib fractures can be painful even if the periosteum is not ruptured.
55. Professor McCarthy remained of the view that all of the 12 rib fractures he had identified were (a) acute and (b) could have been caused by CPR or in the process of D falling through the ladder and/or extricating D from the scarf around her neck or the bunk bed ladder. He accepted, however, that he did not have experience of a previous case where so many fractures had been sustained as a result of CPR.
56. In response to Professor Mangham's evidence that the mechanism of the posterior of the left 6th rib would have required leverage over the transverse process, he said he did not agree. He stated, "*for me, the position of that rib fracture was different from the others. It was further away from the osteoarticular junction. I can't tell how close it is to the transverse process, I can't tell for sure; but it's further towards the middle section of the rib [ie in comparison to the other fractures]*". Principally because this fracture was closer to the mid point of the rib than it was to the transverse process this supported his view, as postulated by Dr Fitzpatrick-Swallow, that this fracture resulted from blunt impact trauma.
57. The other 11 fractures he had identified (8 anterior and 3 posterior) were sustained by the same mechanism albeit a different mechanism from that which had resulted in the left 6th posterior fracture. It remained his view that one could not exclude (a) prolonged CPR or (b) the parents, in a blind panic, extricating D from the scarf around her neck or from the bunk bed ladder; as the cause of all of these rib fractures.
58. There were references made during the evidence of Professor Mangham and Professor McCarthy to a number of research papers dealing principally, but not exclusively,

with the incidence of rib fractures sustained during the administration of CPR. Professor McCarthy had considerable reservations about undue reliance being placed upon these papers because:

- i) Most of them, if not all of them, were written by radiologists or relied upon radiological examination of the patient to identify any rib fractures sustained;
- ii) It was well known that radiological examination was not an accurate method of identifying rib fractures (as in this case none were identified upon radiological examination); and
- iii) It was, therefore, Professor McCarthy's concern that these and like studies underreported the incidence of rib fractures sustained in CPR. Professor McCarthy summarised the issue as follows in his oral evidence: *"I have looked carefully at the methodology. Most of them [fractures seen in literature] were discerned by radiological examination or autopsy of fractures. The numbers are not great. In this case there are at least 10 fractures not seen by radiography. If the cases in all those papers were examined as thoroughly as Prof Mangham has in this case, I am certain that the presence of rib fractures found to be sustained during CPR would drastically increase. Those papers where there has been a post-mortem examination involved looking at the ribs by pulling back the pleura etc. Not many have had a histopathological examination as we have had here."*

59. In respect of his opinions about the features seen histopathologically of bone growth and remodelling, Professor McCarthy drew upon his substantial past experience as an orthopaedic surgeon to opine upon the process of bone growth and remodelling seen in babies and young children. It was a singular advantage for him in the circumstances of this case.

60. As I have mentioned, I gave permission for Professor Mangham to listen to the oral evidence of Professor McCarthy. At the conclusion of the latter's evidence, I asked Professor Mangham whether he wished to give any further evidence or say anything further. Aside from making an observation on a matter raised by Dr Ward, he had nothing further to say.

61. During the course of the police investigation, a number of meetings were held between the experts instructed by the police and on occasions the police attended the meetings. I have referred to the meeting between Professor Mangham and Dr Fitzpatrick-Swallow in June 2023 at paragraph 40 above. Further meetings of the experts and the police took place in October 2023 and February 2024. There was an inconsistency in the manner in which these meetings were minuted or noted. I make reference to the future approach to such meetings in paragraph 83 below.

Evidence

62. The mother and the father did not give evidence and neither did any other of the non-medical expert witnesses. Nevertheless, it is important to record that the court had a wealth of witness statements, reports, police statements and other documentary evidence to give a full account of the circumstances of the parents and of the children

and, in particular, the events immediately following the discovery of D on the morning of 16 June 2022.

63. The accounts of the mother and of the father were comprehensively set out in the witness statements which they had filed and served in these proceedings. The court also had the very great benefit of viewing, hearing, and/or reading the following evidence:
- i) A photograph of D as she was found on the morning of 16 June immediately prior to the mother realising her daughter was not simply asleep;
 - ii) The recording of the 999 call made to the emergency services that morning; and
 - iii) Video footage of the attempts made to resuscitate D at the family home taken from body worn cameras by members of the emergency services.
64. This evidence, in particular, was provided to the expert medical witnesses.

Analysis

65. As I have already referred to, I had the benefit of a considerable volume of written evidence about the circumstances of this family and concerning the events of 16 June 2022. I highlight just three categories of evidence which I found to be of significant assistance in reaching my conclusions in this case:
- i) The witness statements of the mother and of the father;
 - ii) The audio recording of the 999 call and the video evidence taken by body worn cameras of the prolonged attempts made to resuscitate D by the emergency services at the family home on 16 June; and
 - iii) The written reports and very helpful oral evidence of Dr Fitzpatrick-Swallow and of Dr Ward.
66. I found the evidence of Dr Fitzpatrick-Swallow and of Dr Ward to be measured and considered. I have no hesitation in accepting the opinions they both expressed in respect of the injuries sustained by D.
67. The principal evidence in this case which caused me very real concern were the issues addressed by Professor Mangham and Professor McCarthy, namely whether D had sustained any rib fractures and, if so, when and how? These concerns had increased very considerably by the conclusion of Professor Mangham's evidence. These were, however, greatly assuaged by the evidence of Professor McCarthy.
68. Professor Mangham is a highly respected and hugely experienced histopathologist. I have had the benefit of receiving his expert reports in many cases over the years, which I have accepted. In his oral evidence Professor McCarthy made much the same point, speaking of his respect for Professor Mangham and of the thoroughness of his work. He said there had been a number of cases in the past when he had agreed with his opinions and conclusions. Professor McCarthy told me that when agreeing to accept his instructions in this matter he had fully expected that he would, once again,

agree with Professor Mangham and his work on this case would be done, but in this case he did not agree.

69. I found Professor McCarthy's report and his evidence to be balanced, measured and authoritative. He has had vast experience as a histopathologist and, significantly, as an orthopaedic surgeon. In coming to his opinions and conclusions about his examination of the slides of the ribs he brought to bear his great experience, but he also had regard to the circumstances in which D was found, the frantic attempts made by hugely distressed parents to assist and retrieve her and the prolonged administration of CPR.
70. I found his reasons for identifying 12 rib fractures, 8 anteriorly and 4 posteriorly, to be compelling. I likewise found his reasons for disagreeing with Professor Mangham's conclusions that other features found on 12 other slides were fractures and concluding instead that these were features of bone growth and re-modelling and were not fractures to be compelling.
71. In closing submissions, Mr Momtaz KC, leading counsel for the local authority, made a number of criticisms of Professor McCarthy's evidence. These included observations on the professor's familiarity with the duties of an expert witness as set out in FPR PD 25B and his approach to research papers. I do not consider the criticisms made to have had any firm foundation and they do not materially alter my assessment of his evidence.
72. It is with the greatest reluctance that I find myself unable to accept the opinions and conclusions of Professor Mangham. I recognise that he is currently the only forensic consultant histopathologist accepting instructions in cases of suspicious death and/or alleged inflicted injuries in this country. The consequence of this state of affairs, however, is that he has a huge workload.
73. Counsel for each of the parties make numerous criticisms of Professor Mangham's evidence. They are conveniently summarised in the closing submissions prepared by Ms MacLynn KC and Ms Verity, on behalf of the father, as follows:
 - a. His evidence as to causation was linear and given without information as to the wider circumstances of this case; he was quick to offer a view as to non-accidental causation of the acute rib fractures to D having simply ruled out CPR as a cause without considering alternative potential causes for some of the fractures, particularly the posterior fractures. He also strayed beyond his area of expertise in this regard.
 - b. Professor Mangham's linear approach was also illustrated in his evidence as to the anterior rib fractures, which in his written evidence at least he was not prepared to consider separately to the other fractures in this case.
 - c. Professor Mangham's evidence as to the mechanism of the left sixth posterior rib fracture was also deficient. He persisted with his view that it could not have been caused by blunt force to the chest wall and became more firm in his view about this issue, apparently based on his understanding that what Dr

Fitzpatrick Swallow was suggesting was a direct blow immediately above the fracture. This was not what was being suggested – the potential blow was to the sixth rib but lateral to the fracture site, which is why both Dr Fitzpatrick and Professor McCarthy agreed on blunt force trauma as being a potential mechanism for that green stick fracture.

- d. Professor Mangham did not set out areas of his evidence which were controversial, nor did he include features which may have pointed to a different conclusion to that which he had reached (for example in relation to the presence of haemorrhage in some of what he felt were older fractures).
- e. He made a number of repeated mistakes regarding the identification of the fracture to the sixth left posterior rib. It is acknowledged that experts are human and will of course make mistakes. However the continued failure to identify the mistake when the obvious discrepancy had been pointed out by so many other professionals suggests that something more than simple error was in operation; rather it suggests an expert who on this occasion had a very fixed view that clouded his subsequent review to the extent that he continued to miss what was obvious in slide 49 and had even been obvious to him previously in slide 37. Given what is at stake in these cases, such a way of working is high risk.
- f. His use of the medical literature was defective. While the court may feel Professor McCarthy's view that the literature was of no relevance to his opinion was unhelpful, Professor Mangham went to the opposite end of the spectrum to the extent that he appeared to take the view that the literature prevented him from considering the particular circumstances of this case. His reliance on the literature bordered on dogmatic and was in some cases simply wrong; for example with regard to asymmetry and fracture to the first rib. Were the court to accept the evidence of Professor Mangham based on the literature in this way, it would effectively reverse the burden of proof; and
- g. Professor Mangham's failure to comply with directions of the court both in relation to the process of his internal review and with regard to his part 25 instruction was illustrative of him having taken an early view as to causation in this case which he was not prepared to reconsider.

74. The following matters have led me to conclude that I cannot make any findings of fact based solely on the evidence of Professor Mangham nor can I accept his opinions and conclusions where they differ from those of Professor McCarthy:

- i) For reasons he could not explain Professor Mangham did not identify the fracture of the left 6th posterior even after repeated examinations of the slides over a period of many months and despite this fracture being clearly identified and photographed at post mortem examination by Dr Fitzpatrick-Swallow and Dr Marnierides;
 - ii) He only identified the fracture after Professor McCarthy had done so, when the presence of the fracture was, in Professor Mangham's words, as plain as day;
 - iii) He appeared to close his mind to the possibility that any of the rib fractures had been caused accidentally, including by CPR, and focussed, for reasons I do not understand, on an explanation which accounted for all of the fractures he had identified or, at least, excluded CPR as a cause because it did not account for all of the fractures;
 - iv) In rejecting CPR as a cause of any of the rib fractures he included in his answer all of the 24 fractures he had identified, when, as he well knew, on his assessment only 9 of the fractures could have resulted from CPR. Save to say that he was tired, he could give no explanation for giving this answer, other than it was a mistake. It was not in my judgment a simple mistake, it was a grave error which spoke of his closed mind to an accidental cause for these injuries;
 - v) In respect of those fractures he had identified as being 3-7 days before death (which Professor McCarthy did not identify as fractures) he focussed on signs of chronicity and failed to include other features which may have potentially contradicted chronicity;
 - vi) He failed to mention in his report that osteocyte necrosis was a controversial issue; the presence of which was subjective and required careful evaluation. Of even greater concern was his oral evidence that prolonged CPR *negated* reliance on osteocyte necrosis. Yet in the knowledge that D had been subjected to prolonged CPR he referred to the presence of osteocyte necrosis in his report as part of his reasoning as to timing of the acute fractures. Professor McCarthy set out in his report the nature of the controversy when he said the following: "*I do not use osteocyte necrosis to evaluate time of fractures. This is because the observation of osteocyte necrosis is very subjective and often varies from preparation according to the techniques of different laboratories. Therefore, in my experience, osteocyte necrosis is not a reliable indicator of time*".
 - vii) His failure to explain the delay in providing his report in response to Professor McCarthy's report, which I can only conclude was the result of the great pressure of his workload; and
 - viii) It would appear that he had never read the final addendum report of Dr Fitzpatrick-Swallow and had only listened to the 999 call and parts of the video of resuscitation attempts until very shortly before he started his evidence.
75. With great regret, I was left with a very real sense of an expert who was overburdened with work, who had thus made errors in his examination of the forensic material and who had closed his mind to possible or probable accidental causes for the injuries

identified. In any event, in this case, Professor Mangham had fallen below his own high standards as a forensic expert witness.

76. I have considered that, notwithstanding my concerns, Professor Mangham may be right and that, for example, some of D's fractures were sustained 3-7 days before her death, which in the absence of any accidental cause would result in the conclusion that they were inflicted injuries. I would then have to consider the whole of the other evidence before and have to conclude that one or other of these parents had caused the injuries. In the words of Sir Mark Hedley in the case of the *London Borough of Southwark v A* (above), "such a conclusion would be an affront to my judicial conscience."
77. I do not accept the evidence of Professor Mangham when he comes to a different conclusion from Professor McCarthy. I am satisfied and find that the rib fractures identified by Professor McCarthy were, on the balance of probability, sustained accidentally and that the lesions identified by Professor Mangham as being partial fractures sustained 3-7 days before death, were not fractures but rather remodelling.

Delay

78. There have been very considerable delays in listing this fact finding hearing. Three previous fixtures had to be adjourned because the necessary police expert evidence to enable the court to conduct an effective and fair hearing was not available or was not complete. The first listing of this fact finding hearing was as long ago as May 2023. The consequence was that the parents have had to endure the second anniversary of D's death taking place during the course of this fact finding hearing.
79. The delays have principally resulted from (a) the delays in reviewing within these proceedings the final police reports of the experts who had undertaken the post mortem examination (see paragraphs 27-28 above) and (b) issues of disclosure of relevant material between the parties to the proceedings and the police and the Crown Prosecution Service ('CPS').
80. It is not my intention within the parameters of this judgment to ascribe blame for the delay encountered in this case save and to the extent that I make reference to this issue in paragraph [50] above. There is always a tension, to one degree or another, when a Family Court is preparing for and is going to embark on a fact finding hearing and at the same time the police are conducting a criminal investigation into the same subject matter and/or the CPS is proceeding to a criminal trial involving one or more parties to the care proceedings.
81. This tension can potentially be particularly acute where (a) one or more of the experts instructed by the police are also instructed as Part 25 experts in the care proceedings or are being called to give evidence at the fact finding hearing and (b) where one or more of the experts instructed in the care proceedings require access to forensic material held by the police which has been the subject of examination and/or testing by the experts instructed by the police.
82. It is essential for the fair and effective operation of the family justice system and of the criminal justice system that there is open, regular and effective dialogue and co-operation between the parties to the care proceedings, most obviously with the local

authority, and the police and/or the CPS. Plainly there will be exceptions where a particular course of action might imperil the integrity of the family or of the criminal proceedings. In which case it is likely that orders will have been made by the court to require a party not to disclose information or documents to the police or the CPS or to permit the police to withhold evidence from a party or all parties to the care proceedings as a result of the making of a Public Interest Immunity order. The recently launched The Disclosure of Information between Family and Criminal Agencies and Jurisdictions: 2024 Protocol is an essential starting point.

83. In many cases where there are concurrent family proceedings and criminal investigations into the death of or alleged serious injuries caused to a child, the medical experts instructed by the police will be, or are very likely to become experts instructed in the family proceedings or will be called to give evidence at a fact finding hearing. There are differences in the duties and responsibilities of a medical expert when they are instructed by the police in a criminal investigation and when they are instructed to prepare a report in family proceedings. Nevertheless, if and when the police and/or the CPS decide to convene a meeting with one or more of their instructed medical experts it would be advisable, as a matter of good practice, for a minute or note of the meeting to be taken so that it may be disclosed in due course to the parties in the family proceedings. Moreover, and where practicable, it would be advisable for the parties to the family proceedings to be given advance notice of the proposal to convene such a meeting.

Conclusion

84. At the conclusion of the expert evidence, the local authority made the decision not to pursue the findings of fact they had sought in respect of D's ribs and in respect of injuries sustained by A. For the reasons I have given, I endorsed this decision.
85. On the basis of the totality of the evidence, in particular the medical evidence, I could not be satisfied and could not find that D had sustained any chronic rib fractures in the days before her tragic death.
86. The only plausible or likely explanations for the cause of her acute rib fractures, all of which were sustained around the time of death, were:
- i) When D fell through the bunk bed ladder causing blunt force trauma (left posterior 6th rib); and/or
 - ii) When her parents made frantic efforts to remove the scarf from around her neck; and/or
 - iii) When they tried to extricate her from the bunk bed and the bunk bed ladder; and/or
 - iv) The administration of CPR over a sustained and prolonged period of time.
87. It had never been the intention of the local authority to seek a free standing finding in respect of the bruises sustained by A in August 2020. The parents had denied inflicting any of these injuries and put forward a fall that A had suffered from the top of his bunk bed. It would have been inappropriate and disproportionate to have

challenged the parents' account in the absence of any other concerns about the care subsequently given to him by both of them.

88. After the conclusion of the expert evidence and the decision made by the local authority not to pursue findings of fact in respect of alleged inflicted injuries sustained by D or A, the local authority contemplated submitting that the threshold criteria of s31(2) of the 1989 Act were satisfied on an alternate basis. Ultimately it concluded not to do so and decided to invite the court to make no order under Part IV of the 1989 Act.
89. Accordingly, I concluded that the threshold criteria were not satisfied in respect of A, B or C.
90. The local authority invited the parents to consent to the making of a Family Assistance Order pursuant to s16 of the 1989 Act. The parents were now living in the area of a different London Borough and sought support from that local authority in accordance with the provisions of s17 of the 1989 Act. They, therefore, quite reasonably declined to consent to the making of a Family Assistance Order in favour of the local authority.
91. It was agreed between the parties and endorsed by the court that there was no longer any welfare need for the parents' care of C to be supervised and there was no longer any welfare need for A and B to remain in the care of their kinship carer under the auspices of an interim care order. Accordingly, the supervision of the parents' care of C was immediately withdrawn, A and B returned to the care of their mother and father and the interim care orders were discharged. It had been intended that after being told of the outcome of these proceedings in child appropriate forms, that A and B would return home after a short but phased period. However, such was the strength of A's wish and desire to return home immediately that he and B returned without further delay in the care of the parents. All has gone well.
92. The parents have endured the enforced separation from A and B for just over two years. They have endured caring for C under very close and constant supervision for almost the whole of the first year of his life. To their very great credit they have both borne this unhappy and stressful disruption to their family life with considerable fortitude and dignity.
93. I wish to express my sincere gratitude to all leading and junior counsel instructed in this matter for their exemplary conduct of this case and for the very considerable assistance that they have given the court.
94. A draft of this judgment was provided to Professor Mangham and Professor McCarthy and their comments invited upon the parts of the judgment dealing with their own evidence. Professor McCarthy had no further comment to make. Professor Mangham submitted a letter and annotations to the judgment some of which were accepted, most of which, were not.